

COLLEGE OF SCIENCES AND HUMANITIES

College of Sciences and Humanities

104 Bowman Hall
Kent Campus
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www.kent.edu/sh

Departments and Schools

- Department of Africana Studies
- Department of Anthropology
- Department of Biological Sciences
- Department of Chemistry and Biochemistry
- Department of Computer Science
- Department of Earth Sciences
- Department of English
- Department of Geography
- Department of History
- Department of Mathematical Sciences
- Department of Modern and Classical Language Studies
- Department of Philosophy
- Department of Physics
- Department of Political Science
- Department of Psychological Sciences
- Department of Sociology and Criminology
- School of Biomedical Sciences
- School of Communication Studies
- School of Information
- School of Multidisciplinary Social Sciences and Humanities
- School of Peace and Conflict Studies

Undergraduate Programs

Majors

- Actuarial Mathematics - B.S.
- American Sign Language - B.A.
- Anthropology - B.A.
- Anthropology - B.S.
- Applied Mathematics - B.S.
- Biochemistry - B.S.
- Biology - B.A.
- Biology - B.S.
- Biotechnology - B.S.
- Chemistry - B.S.
- Communication Studies - B.A.
- Computer Science - B.A.
- Computer Science - B.S.
- Criminology and Justice Studies - B.A.
- Cybercriminology - B.S.

- Economics - B.A.
- English - B.A.
- Environmental and Conservation Biology - B.S.
- Environmental Studies - B.A.
- Gender and Sexuality Studies - B.A.
- Geography - B.A.
- Geology - B.A.
- Geology - B.S.
- German - B.A.
- History - B.A.
- Integrative Studies - B.I.S.
- International Studies - B.A.
- Mathematics - B.S.
- Medical Laboratory Science - B.S.
- Neuroscience - B.S.
- Paralegal Studies - B.A.
- Peace and Conflict Studies - B.A.
- Physics - B.S.
- Political Science - B.A.
- Psychology - B.A.
- Psychology - B.S.
- Russian Literature, Culture and Translation - B.A.
- Sociology - B.A.
- Spanish - B.A.
- Teaching English as a Second Language - B.A.
- Translation - B.S.
- Zoology - B.S.

Minors

- African Studies
- Africana Studies
- American Sign Language
- Ancient, Medieval and Renaissance Studies
- Anthropology
- Applied Data and Information
- Applied Mathematics
- Applied Statistics
- Arabic
- Bioethics and Health Humanities
- Biochemistry
- Bioinformatics
- Biological Sciences
- Biology for Environmental Management and Conservation
- Business German
- Business Russian
- Business Spanish
- Chemistry
- Chinese
- Classics
- Climate Change
- Communication Studies
- Computer Science
- Computers and Geosciences

- Creative Writing
- Criminology and Justice Studies
- Cybersecurity Foundations
- Earth Science
- English
- Environment, Peace and Justice
- Environmental Geology
- Environmental Studies
- Forensic Anthropology
- French
- French for the Professions
- Game Programming
- Geographic Information Science
- Geography
- Geology
- German
- German Studies
- Greek
- History
- Human Disease
- International Studies
- Italian
- Italian Studies
- Japanese
- Jewish Studies
- Latin
- Latin American Studies
- Lesbian, Gay, Bisexual, Transgender and Queer Studies
- Mathematics
- Medical Anthropology
- Microbiology
- Negotiation, Mediation and Conflict Management
- Neuroscience
- Paleontology
- Paralegal Studies
- Park Management
- Philosophy
- Physics
- Political Science
- Pre-Law
- Professional and Technical Writing
- Psychology
- Religion Studies
- Russian
- Russian Studies
- Society, Health and Medicine
- Sociology
- Spanish
- Translation and Multilingual Communication
- Urban Studies
- Web Programming

- Women's Studies
- World Literature and Cultures

Graduate Programs

Majors

- Anthropology - M.A.
- Applied Geology - Ph.D.
- Applied Mathematics - M.A.
- Applied Mathematics - M.S.
- Applied Mathematics - Ph.D.
- Artificial Intelligence - M.S.
- Biological Sciences - Cell Biology and Molecular Genetics - M.S.
- Biological Sciences - Cell Biology and Molecular Genetics - Ph.D.
- Biological Sciences - Ecology and Evolutionary Biology - M.S.
- Biological Sciences - Ecology and Evolutionary Biology - Ph.D.
- Biological Sciences - Integrative Physiology and Neurobiology - M.S.
- Biological Sciences - Integrative Physiology and Neurobiology - Ph.D.
- Biology - M.A.
- Biomedical Sciences - Cellular and Molecular Biology - M.S.
- Biomedical Sciences - Cellular and Molecular Biology - Ph.D.
- Biomedical Sciences - Human Evolutionary Biology - Ph.D.
- Biomedical Sciences - Neurosciences - M.S.
- Biomedical Sciences - Neurosciences - Ph.D.
- Biomedical Sciences - Pharmacology - M.S.
- Biomedical Sciences - Pharmacology - Ph.D.
- Biomedical Sciences - Physiology Interdisciplinary - M.S.
- Biomedical Sciences - Physiology Interdisciplinary - Ph.D.
- Chemistry - M.A.
- Chemistry - M.S.
- Chemistry - Ph.D.
- Clinical Psychology - Ph.D.
- Communication Studies - M.A.
- Computer Science - M.A.
- Computer Science - M.S.
- Computer Science - Ph.D.
- Creative Writing - M.F.A.
- Criminology and Criminal Justice - M.A.
- Data Science - M.S.
- English - M.A.
- English - Ph.D.
- French - M.A.
- Geographic Information Science - M.G.I.Sc.
- Geography - M.S.
- Geography - Ph.D.
- Geology - M.S.
- Health Informatics - M.S.
- History - M.A.
- History - Ph.D.
- Knowledge Management - M.S.
- Latin - M.A.
- Liberal Studies - L.S.M.
- Library and Information Science - M.L.I.S.

- Materials Science - M.S.
- Materials Science - Ph.D.
- Mathematics for Secondary School Teachers - M.A.
- Peace and Conflict Studies - M.A.
- Philosophy - M.A.
- Physics - M.A.
- Physics - M.S.
- Physics - Ph.D.
- Political Science - M.A.
- Political Science - Ph.D.
- Psychological Science - M.A.
- Psychological Science - Ph.D.
- Public Administration - M.P.A.
- Pure Mathematics - M.A.
- Pure Mathematics - M.S.
- Pure Mathematics - Ph.D.
- School Library Media K-12 - M.L.I.S.
- Sociology - M.A.
- Sociology - Ph.D.
- Spanish - M.A.
- Teaching English as a Second Language - M.A.
- Translation - M.A.
- Translation Studies - Ph.D.
- User Experience - M.S.

Minors

- Arabic Translation
- Classics
- French Translation
- German Translation
- Japanese Translation
- Race, Gender and Social Justice
- Russian Translation
- Spanish Translation

Certificates

Undergraduate Certificates

- Global Issues
- Paralegal Studies
- Pre-Health
- Teaching English as a Foreign Language

Graduate Certificates

- CCP Credentialing in Mathematics
- Communication and Advocacy
- Environmental Geographic Information Science
- Geographic Information Science
- Health Informatics
- Knowledge Management
- Medical Librarianship
- Nonprofit Management
- Teaching English as a Second/Foreign Language

Non-Degree Programs

Undergraduate

- Columbus Program in State Issues
- Teaching English as a Second Language Endorsement Preparation
- Washington Program in National Issues

Graduate

- School Library Media Licensure
- Teaching English as a Second Language Endorsement Preparation

College Policies

Foreign Language Requirements

In general, students may elect any foreign language taught through the Department of Modern and Classical Language Studies. However, certain majors, concentrations and minors require specific languages or limit the languages from which students may choose. In addition, students who plan to pursue graduate study may need particular languages for that study. In such cases, students should seek the advice of the appropriate department before selecting a language.

Progress Toward Fulfillment

College of Sciences and Humanities students are encouraged to begin meeting the foreign language requirement as early as possible in their program to ensure timely degree completion.

Foreign Language College Requirement, B.A.

Students pursuing the Bachelor of Arts degree* in the College of Sciences and Humanities must complete the following:

1. Elementary I and II of any language (or equivalent) **and**
2. One of the following options:
 - a. Intermediate I and II of the same language
 - b. Elementary I and II of a second language
 - c. Any combination of two courses from the following list:
 - i. Intermediate I of the same language
 - ii. One to two college-level course(s) completed outside the United States
 - iii. Courses: ARAB 21401, ASL 19401, CHIN 25421, MCLS 10001, MCLS 20001, MCLS 20091, MCLS 21417, MCLS 21420, MCLS 22217, MCLS 28403, MCLS 28404

*The Bachelor of Arts degree in Communication Studies is exempt from the foreign language requirement until fall 2028 due to its previous longstanding academic placement in the College of Communication and Information, which does not have a foreign language requirement.

All students with prior foreign language experience should take the foreign language placement test to determine the appropriate level at which to start. Some students may start beyond the Elementary I level and will complete the requirement with fewer courses. This may be accomplished in one of three ways:

1. Passing a course beyond Elementary I through Intermediate II level
2. Receiving credit through one of the alternative credit programs offered by Kent State University
3. Demonstrating language proficiency comparable to Elementary II of a foreign language

Certain programs may require specific languages, limit the languages from which a student may choose or require coursework through Intermediate II. Students who plan to pursue graduate study may need a particular language proficiency.

Foreign Language College Requirement, B.S.

- Students pursuing the Bachelor of Science degree in the College of Sciences and Humanities must complete 8 credit hours of foreign language.¹
- The following programs are exempt from this requirement: The Bachelor of Science in Cybercriminology and the Bachelor of Science in Medical Laboratory Science.²
- Minimum Elementary I and II of the same language

¹ All students with prior foreign language experience should take the foreign language placement test to determine the appropriate level at which to start. Some students may start beyond the Elementary I level and will complete the requirement with fewer credit hours and courses. This may be accomplished by (1) passing a course beyond Elementary I through Intermediate II level; (2) receiving credit through one of the alternative credit programs offered by Kent State University; or (3) demonstrating language proficiency comparable to Elementary II of a foreign language. When students complete the requirement with fewer than 8 credit hours and two courses, they will complete remaining credit hours with general electives.

² The Bachelor of Science in Medical Laboratory Science exemption exists under another college policy (Three-Plus-One Programs). The Bachelor of Science in Cybercriminology exemption is due to its extensive collaboration with and contribution from the Information Technology program in the College of Applied and Technical Studies, which does not have a foreign language requirement.

Mandatory Outcomes Assessment

In addition to the other General Requirements of the college, candidates for an undergraduate degree in the College of Sciences and Humanities are required, as a condition of graduation, to participate in an outcomes assessment. These outcomes assessments are conducted by each undergraduate degree program in the College of Sciences and Humanities.

Three-Plus-One Programs

Students who choose to pursue Three-Plus-One programs take three years of preprofessional study at Kent State University, followed by a year or more of intensive professional training at an accredited professional school or clinical facility. Upon the satisfactory completion of this professional training, the B.S. degree from the College of Sciences and Humanities at Kent State University is awarded. Students must earn 97 credit hours in a university. Appropriate transfer credit from other institutions may be included in these 97 credit hours, but the students must complete at least 42 credit hours in-residence at Kent State University, including the last 32 credit hours of the 97 credit hours requirement.

Students must have a minimum 2.000 GPA in all work taken at Kent State University. They must also complete with at least a 2.000 average all off-campus work taken to fulfill fourth-year requirements. In some fields, students may also be required to present other evidence of the satisfactory completion of the off-campus professional training.

Students must satisfy all degree requirements, including the B.S. General Requirements and field of concentration requirements, by a combination of credits earned at Kent State University and the professional school. The only exception is that the college's foreign language requirement is waived for students who successfully complete a Three-Plus-One program.

Three-Plus-One programs are designed for students with a well-defined, specific, professional career goal. Currently, the College of Sciences and Humanities offers a Three-Plus-One program in Medical Laboratory Science. Because of the intensive, professional focus of these programs, students pursuing them should work closely with their faculty advisors. Students who are interested in this program should consult the Department of Biological Sciences, 256 Cunningham Hall, for further information.

Please see the program requirements for the Medical Laboratory Science program offered under the College of Sciences and Humanities.

College of Arts and Sciences Faculty

Department of Africana Studies Faculty

- Crawford, Charmaine M. (2019), Associate Professor, Ph.D., York University, 2010
- Gooden, Amoaba (2005), Professor, Ph.D., Temple University, 2005
- Kumah-Abiwu, Felix (2015), Professor
- Okantah, Mwatabu S. (1991), Professor, B.A., Kent State University, 1976
- Piccirillo-Smith, Linda A. (1983), Senior Lecturer, M.A., Kent State University, 1980
- Sunni-Ali, Asantewa (2016), Associate Professor

Department of Anthropology Faculty

- Bebbler, Michelle R. (2019), Associate Professor, Ph.D., Kent State University, 2019
- Cimino, Aldo N. (2021), Assistant Professor
- Edler, Melissa K. (1998), Assistant Professor, Ph.D., Kent State University, 2016
- Eren, Metin I. (2016), Professor, Ph.D., Southern Methodist University, 2011
- Lovejoy, C. Owen (1968), Distinguished Professor, Ph.D., University of Massachusetts, Amherst, 1970
- Meindl, Richard S. (1979), Professor, Ph.D., University of Massachusetts-Amherst, 1979
- Raghanti, Mary Ann (2000), Professor, Ph.D., Kent State University, 2007
- Spurlock, Linda B. (1993), Professor, Ph.D., Kent State University, 2001
- Stumpf-Carome, Jeanne M. (1994), Professor, Ph.D., University of California, Berkeley, 1992
- Takeshita, Rafaela S. (2019), Associate Professor, D.Sc., Kyoto University, 2018
- Tosi, Anthony J. (2014), Associate Professor, Ph.D., Columbia University, 2000

Department of Biological Sciences Faculty

- Bade, Darren L. (2006), Associate Professor, Ph.D., University of Wisconsin, 2004
- Bahlai, Christine (2017), Associate Professor, Ph.D., University Of Guelph, 2012

- Bailey, Erin L. (2012), Associate Professor, Ph.D., Kent State University, 2001
- Bedont, Joseph L. (2023), Assistant Professor, Ph.D., The Johns Hopkins University, 2016
- Caldwell, Heather K. (2007), Professor, Ph.D., Georgia State University, 2004
- Chung, Wilson C. (2011), Professor, Ph.D., University of Amsterdam, 2003
- Clements, Robert J. (1997), Professor, Ph.D., Kent State University, 2004
- Costello, David M. (2014), Professor, Ph.D., University of Notre Dame, 2010
- De Szalay, Ferenc A. (1997), Associate Professor, Ph.D., University of California-Berkeley, 1995
- Delorme, Thierry A. (2004), Associate Professor, Ph.D., University of Lyon, 1997
- Ding, Qunxing (2007), Professor, Ph.D., Beijing University of Agriculture, 1994
- Eichler, Sarah E. (2019), Assistant Professor, Ph.D., University of Tennessee, Knoxville, 2018
- Eisermann, Kurtis (2002), Associate Professor, Ph.D., Kent State University, 2011
- Engohang-Ndong, Jean (2010), Professor
- Gerbig, Donald G. (1996), Associate Professor, Ph.D., University of Tennessee-Knoxville, 1991
- Grafton, Brian W. (1994), Professor, Ph.D., Kent State University, 2004
- Groff, Chi-Hua (2009), Associate Professor, Ph.D., Wayne State University, 1997
- Gupta, Sanhita (2009), Professor, Ph.D., Case Western Reserve University, 1998
- Hamilton, Robert (2005), Associate Professor, Ph.D., Rutgers, State University of New Jersey, 2006
- Hegmann, Elda (2011), Associate Professor, Ph.D., Laval University, 2003
- Hoeh, Walter R. (1998), Associate Professor, Ph.D., University of Michigan, Ann Arbor, 1991
- Johnson, John D. (2007), Professor, Ph.D., University of Colorado-Boulder, 2002
- Kershner, Mark W. (1999), Associate Professor, Ph.D., The Ohio State University, 1998
- Kim, Min-Ho (2012), Professor, Ph.D., Pennsylvania State University, 2004
- Kim, Woo-Yang (2018), Professor, Ph.D., University at Buffalo-SUNY, 2004
- Kinsman-Costello, Lauren E. (2013), Associate Professor, Ph.D., Michigan State University, 2012
- Kooijman, Edgar (1998), Professor, Ph.D., Utrecht University, 2006
- Koski, Gary K. (2010), Professor, Ph.D., Johns Hopkins University, 1995
- Kurokawa, Manabu (2017), Associate Professor, Ph.D., University of Massachusetts-Amherst, 2004
- Lamichhaney, Sangeet (2019), Associate Professor, Ph.D., Uppsala University, 2016
- Leff, Laura G. (1994), Professor, Ph.D., University of Georgia, 1992
- Lehnert, Matthew S. (2012), Professor, Ph.D., University of Florida, 2010
- McDonough, Jennifer A. (2006), Professor
- Meek, Leah M. (1995), Senior Lecturer, Youngstown State University
- Mintz, Eric M. (2002), Professor, Ph.D., University of California-Santa Cruz, 1995
- Model, Michael A. (2004), Associate Professor, Ph.D., University of Michigan-Ann Arbor, 1995
- Moore, Aleisha M. (2019), Assistant Professor, Ph.D., University of Otago, 2015
- Mou, Xiaozhen (2008), Professor, Ph.D., University of Georgia, 2006
- Mueller, Devin (2018), Professor, Ph.D., Concordia University, 2005
- Novak-Barnett, Colleen M. (2009), Professor, Ph.D., Michigan State University, 1999
- Piet, Richard (2019), Associate Professor, Univ De Bordeaux, 2003
- Piontkivska, Olena (2005), Professor, Ph.D., Pennsylvania State University, 2003
- Popescu, Daniela C. (2013), Professor, Ph.D., Vanderbilt University, 2006
- Qutob, Dinah S. (2018), Assistant Professor, Ph.D., University Of Western Ontario, 2002
- Redfearn, James C. (2006), Associate Professor, Ph.D., Kent State University, 2016
- Rocha, Oscar J. (2004), Professor, Ph.D., Penn State University, 1990
- Russell, Mary A. (2003), Professor, Ph.D., The Ohio State University, 1996
- Schuchovski, Carolina S. (2024), Assistant Professor, Ph.D., Federal University of Paraná, 2020
- Steele, Louise (2012), Associate Professor, Ph.D., Case Western Reserve University, 2002
- Stone, Jonathan F. (2003), Associate Professor, B.S., University of Akron, 1985
- Trevelline, Brian (2023), Assistant Professor, Ph.D., Duquesne University, 2017
- Vash, Sarah R. (2004), Senior Lecturer, M.S., Kent State University, 2003
- Veney, Sean L. (2004), Associate Professor, Ph.D., University of Virginia-Main Campus, 2000
- Ward, David (2015), Professor, Ph.D., University of KwaZulu-Natal, 1988
- Zhu, Haiyan (2010), Associate Professor, Ph.D., University of Kentucky, 2006

Department of Chemistry and Biochemistry Faculty

- Abeyisirigunawardena, Sanjaya C. (2015), Associate Professor, Ph.D., Wayne State University, 2008
- Abraham, Ann C. (2004), Associate Professor, Ph.D., University of Pittsburgh, 1983
- Bowers, David J. (2013), Associate Professor
- Bunge, Scott D. (2004), Associate Professor, Ph.D., Georgia Institute of Technology, 2001
- Burns, Andrew (1994), Professor, Ph.D., Brown University, 1990
- Cubon-Bell, Valerie A. (2010), Professor, Ph.D., Princeton University, 2008
- Datta, Bansidhar (2000), Associate Professor, University of Nebraska-Lincoln, 1989
- Dunietz, Barry (2012), Professor
- Ekanayake, Sujeewani K. (2012), Professor

- Fouad, Farid S. (2008), Professor, Ph.D., Northeastern University, 2003
- Friedrich, Dirk (2016), Associate Professor, Ph.D., Universitat Leipzig, 2013
- Goncalves Schmidt, Diana P. (2019), Assistant Professor
- Hegmann, Torsten (2011), Professor, Ph.D., Martin Luther University, 2001
- Huang, Songping D. (1998), Professor, Ph.D., Michigan State University, 1993
- Konar, Arkaprabha (2019), Assistant Professor, Ph.D., Michigan State University, 2015
- Leslie, Margaret R. (2004), Professor, Ph.D., Rhodes University, 1995
- Mao, Hanbin (2005), Professor, Ph.D., Texas A&M University, 2003
- Motry, Douglas H. (1996), Associate Professor, Ph.D., Michigan State University, 1996
- Pal Chaudhuri, Urmila (2008), Associate Professor, Ph.D., Indian Institute of Technology Madras, 2004
- Prevot, Marianne (2016), Assistant Professor
- Seed, Alexander J. (1996), Associate Professor, Ph.D., University Of Hull
- Shen, Hao (2018), Assistant Professor, Ph.D., Cornell University, 2015
- Subramanian, Pritha (2006), Associate Professor, Ph.D., Kent State University, 2013
- Tandon, Santokh S. (2004), Professor, Ph.D., Guru Nanak Dev University, 1979
- Tubergen, Michael J. (1995), Professor, Ph.D., University of Chicago, 1991
- Wang, Zhiqiang (2007), Professor, Fudan University, 2000
- Zheng, Yaorong (2015), Associate Professor, Ph.D., University of Utah, 2011

Department of Computer Science Faculty

- Allouzi, Maha A. (2013), Associate Professor, Ph.D., Kent State University, 2022
- Bansal, Arvind K. (1988), Professor, Ph.D., Case Western Reserve University, 1985
- Bektic, Meldin (2024), Lecturer, B.S., Kent State University, 2021
- Bhati, Deepshikha (2017), Lecturer, Uttar Pradesh Tech University, 2016
- Chae, Younghun (2016), Associate Professor, Ph.D., University of Rhode Island, 2017
- DeLozier, Gregory S. (2014), Associate Professor
- Dragan, Feodor F. (2000), Professor, Ph.D., Belarus State University
- Guan, Qiang (2018), Associate Professor, M.S., University of North Texas, 2008
- Guercio, Angela (1999), Professor, Ph.D., Kent State University, 2004
- Hasan, Md Raiful (2023), Assistant Professor
- Jin, Ruoming (2005), Professor, Ph.D., The Ohio State University, 2001
- Khan, Javed I. (1997), Professor, Ph.D., University of Hawaii-Manoa, 1995
- Kim, JungYoon (2019), Associate Professor, Ph.D., Penn State University, 2014
- Kim, Kwangtaek (2019), Associate Professor, Ph.D., Purdue University, 2010
- Kim, Jong-Hoon (2017), Associate Professor
- Lian, Xiang (2016), Associate Professor, Ph.D., Hong Kong University Of Science and Technology, 2009

- Maletic, Jonathan I. (2001), Professor, Ph.D., Wayne State University, 1995
- Nesterenko, Mikhail (1998), Professor, Ph.D., Kansas State University, 1998
- Peyravi, Hassan M. (1985), Professor, Ph.D., University of Oklahoma, 1995
- Samba, Augustine S. (2001), Professor, Ph.D., University of Liverpool, 1983
- Sharma, Gokarna (2015), Associate Professor, Ph.D., Louisiana State University, 2014
- Villalobos Herrera, Giovanni (2024), Lecturer, Tech Institute of Costa Rica, 2019
- Xu, Lei (2022), Associate Professor, Chinese Academy Of Science, 2011
- Zhao, Ye (2006), Professor, Ph.D., State University of New York, Stony Brook, 2006

Department of Earth Sciences Faculty

- Clement, Susanne M. (1995), Professor, Ph.D., Kent State University, 2005
- Gallagher, Timothy M. (2020), Associate Professor, Ph.D., University of Michigan, 2016
- Hacker, David B. (1989), Professor, Ph.D., Kent State University, 1998
- Holm, Daniel K. (1992), Professor, Ph.D., Harvard University, 1992
- Ortiz, Joseph D. (2001), Professor, Ph.D., Oregon State University, 1995
- Schweitzer, Carrie E. (1994), Professor, Ph.D., Kent State University, 2000
- Singer, David M. (2012), Associate Professor, Ph.D., Stanford University, 2008
- Singh, Kuldeep (2017), Assistant Professor, Ph.D., University of Texas at Austin, 2013
- Smith, Alison J. (1990), Professor, Ph.D., Brown University, 1991
- Taylor, Eric S. (2012), Professor, Ph.D., The Ohio State University, 2012
- Tessin, Allyson (2020), Associate Professor, Ph.D, University of Michigan-Ann Arbor, 2016
- Wagner, Courtney L. (2024), Assistant Professor, Ph.D., University Of Utah, 2021
- Wells, Neil A. (1984), Professor, Ph.D., University of Michigan-Ann Arbor, 1984

Department of English Faculty

- Abuzeid, Ayham (2007), Associate Lecturer, M.A., Kent State University, 2010
- Ailiesei, Sorina M. (2013), Assistant Professor, Ph.D., Babes - Bolyai University, 2012
- Baker, Alexis M. (2017), Associate Professor, Ph.D., Kent State University, 2016
- Behney, Jennifer (2024), Associate Professor, Ph.D., Michigan State University, 2011
- Bowles, Noelle K. (2001), Associate Professor, Ph.D., University of Miami, 1996
- Bracher, Mark F. (1985), Professor, Ph.D., Vanderbilt University, 1981
- Brodsky, Adam H. (2008), Senior Lecturer, M.A., Kent State University, 2011
- Byrne, Peter M. (2008), Associate Professor, Ph.D., University of California, Irvine, 2004

- Canacci, James E. (1995), Senior Lecturer, M.A., Youngstown State University, 1995
- Christen-Syed, Shannon L. (2010), Senior Lecturer, M.A., Kent State University, 2004
- Clewell, Tammy (2000), Professor, Ph.D., Florida State University, 2000
- Cunningham, Jennifer M. (2009), Professor, Ph.D., Kent State University, 2012
- Dallacheisa, Tony G. (2008), Associate Lecturer, M.A., Ohio University, 2008
- Dauterich, Edward (1997), Professor, Ph.D., Kent State University, 2006
- Davis Patterson, Kathy S. (2000), Associate Professor, Ph.D., The Ohio State University, 1999
- Devore, Elizabeth E. (2010), Senior Lecturer, M.A., New Mexico Highlands University, 2009
- Dugas, Don-John (2005), Professor, Ph.D., Penn State University, 1999
- Dunmire, Patricia L. (1995), Professor, Ph.D., Carnegie Mellon University, 1995
- Elder, Dolores M. (2009), Associate Lecturer, M.A., Kent State University, 2010
- Ellis, Marnie K. (2003), Associate Lecturer, M.F.A., Bowling Green State University, 1999
- Erritouni, Ali (2005), Associate Professor, Ph.D., University of Miami, 2004
- Faller, Patrick M. (2011), Lecturer, M.F.A., West Virginia University-Morgantown, 2010
- Hall, Elizabeth A. (2011), Lecturer, M.A., University of Akron, 2017
- Harrington, Kristine (2016), Associate Lecturer, M.A., Youngstown State University, 1995
- Hayes, Amanda (2016), Associate Professor, Ph.D., Ohio University, 2015
- Hediger, Ryan R. (2011), Professor, Ph.D., University of Oregon, 2005
- Hendrickx, Jessy A. (2015), Associate Lecturer, M.A., Kent State University, 2002
- Hricko, Mary F. (1994), Professor, Ph.D., Kent State University, 2004
- Jones, Jessica M. (2016), Associate Lecturer, University Of Montana, 2014
- King, Robert J. (1998), Professor, M.F.A., Indiana University-Bloomington, 1998
- Krishnan, Uma S. (2001), Professor, Ph.D., Kent State University, 2014
- Lloyd, Keith S. (2002), Professor, Ph.D., University of Louisville, 1996
- Lyons, Janet L. (2010), Associate Lecturer, M.A., Kent State University, 2011
- Lyons, Jo-Leigh (1991), Senior Lecturer, M.A., Kent State University, 1996
- M'baye, Babacar (2006), Professor, Ph.D., Bowling Green State University, 2002
- MacLure, Jennifer (2017), Associate Professor, Ph.D., University of Wisconsin, Madison, 2017
- Martinez, Ann M. (2014), Associate Professor, Ph.D., University of Kansas, 2014
- Mechenbier, Mahli X. (1996), Senior Lecturer, J.D., University of Akron, 2002
- Miller, Ryan T. (2014), Professor, Ph.D., Carnegie Mellon University, 2013
- Mokros, Molly M. (2009), Associate Lecturer, M.A., New York University, 2002
- Neaderhiser, Stephen E. (2009), Associate Professor, M.A., University of Kansas, 2004
- Orr, Katherine M. (1990), Professor, Ph.D., Kent State University, 2010
- Patterson, G. R. (2018), Associate Professor, Ph.D., Miami University, 2013
- Raabe, Wesley (2008), Associate Professor, Ph.D., University of Virginia, Main Campus, 2006
- Remley, Dirk R. (1990), Professor, Ph.D., Kent State University, 2010
- Rilling, Sarah E. (2002), Professor, Ph.D., Northern Arizona University, 1998
- Robinson, Carol L. (2000), Professor, Ph.D., University of Georgia, 1994
- Roman, Christopher M. (1997), Professor, Ph.D., University of Alabama, 2004
- Rooks, Mary A. (2005), Assistant Professor, Ph.D., University of Mexico, 2004
- Rozner, Debbie L. (2010), Professor, M.Ed., George Washington University, 2004
- Sainato, Susan M. (1987), Professor, Ph.D., Kent State University, 2002
- Schaufler, Charlene M. (1991), Senior Lecturer, M.A., Kent State University, 1994
- Shaker, Bonnie J. (2013), Associate Professor, Ph.D., Case Western Reserve University, 1998
- Shank, Matthew A. (1983), Senior Lecturer, M.A., University of Akron, 1982
- Smith, Jeanne R. (1998), Senior Lecturer, M.A., State University of New York, Binghamton, 1986
- Sturr, Robert D. (1997), Associate Professor, Ph.D., University of Southern California, 1998
- Swick-Higgins, Chelsea R. (2010), Lecturer
- Takayoshi, Pamela D. (2004), Professor, Ph.D., Indiana University, Purdue University Indianapolis, 1995
- Tognazzini, Anthony C. (2023), Assistant Professor, M.F.A., Indiana University Bloomington, 2002
- Trogon, Robert W. (1997), Professor, Ph.D., University of South Carolina-Columbia, 1996
- Uhrig, Mindy D. (2006), Senior Lecturer, M.A., University of Indiana, Bloomington, 1994
- Van Ittersum, Derek (2008), Professor, Ph.D., University of Illinois-Urbana, 2008
- Vogel, Lauren A. (2001), Associate Professor, M.A., Kent State University, 2005
- Wagoner, Elizabeth A. (2004), Assistant Professor, Ph.D., Kent State University, 2014
- Wetzl, Ana M. (2007), Professor, Ph.D., Indiana University of Pennsylvania, 2011
- Whiteleather, Hagan F. (2012), Assistant Professor, M.F.A., Iowa State University, 2019
- Willey, Nicole L. (1997), Professor, Ph.D., University of Alabama, 2003
- Wing, Catherine (2010), Associate Professor, M.F.A., University of Washington, 2004
- Winkler, Kyle M. (2018), Associate Professor, Ph.D., University of Pittsburgh, 2018
- Winter, James P. (2008), Associate Professor, M.F.A., Kent State University, 2012
- Wollenzier, Michele M. (2005), Associate Lecturer, M.A.T., Kent State University, 2003

Department of Geography Faculty

- Amey, Katherine S. (2009), Professor, Ph.D., Kent State University, 2011
- Bitterman, Patrick J. (2024), Assistant Professor, Ph.D., University Of Iowa, 2017
- Kaplan, David H. (1995), Professor, Ph.D., University of Wisconsin-Madison, 1991
- Lee, Cameron C. (2008), Associate Professor, Ph.D., Kent State University, 2014
- Mapes, Jennifer E. (2012), Assistant Professor, Ph.D., University of Southern California, 2009
- Munro-Stasiuk, Mandy J. (1999), Professor, Ph.D., University of Alberta, 1999
- Parylak, Rebecca P. (2008), Professor, Ph.D., Texas State University, San Marcos, 2010
- Post, Christopher (2008), Professor, Ph.D., University of Kansas, 2006
- Sheridan, Scott C. (2000), Professor, Ph.D., University of Delaware, 2000
- Smiley, Sarah L. (2010), Professor, Ph.D., University Of Kansas, 2007
- Tyner, James A. (1997), Professor, Ph.D., University of Southern California, 1995
- Ward, Aimee L. (2020), Assistant Professor, Ph.D., University of Otago, 2018
- Widner, Emariana S. (2009), Professor, Ph.D., Texas State University, 2009
- Yin, He (2019), Assistant Professor

Department of History Faculty

- Adams, Kevin J. (2006), Associate Professor, Ph.D., University of California-Berkeley, 2004
- Bindas, Kenneth J. (1995), Professor, Ph.D., University of Toledo, 1988
- Crawford, Matthew J. (2009), Associate Professor, Ph.D., University of California, San Diego, 2009
- Diacon, Todd A. (2012), Professor, Ph.D., University of Wisconsin-Madison, 1987
- Gruenwald, Kim M. (1995), Professor, Ph.D., University of Colorado, Boulder, 1994
- Hartline, Todd A. (1992), Associate Professor, Ph.D., Kent State University, 2006
- Hayashi, Brian M. (2016), Professor, Ph.D., University of California-Los Angeles, 1990
- Heaphy, Leslie A. (1995), Associate Professor, Ph.D., University of Toledo, 1995
- Heiss, Mary A. (1992), Professor, Ph.D., The Ohio State University, 1991
- Keefer, Bradley S. (1987), Associate Professor, Ph.D., Kent State University, 2006
- Li, Hongshan (1993), Professor, Ph.D., University of Missouri, Columbia, 1992
- Menning, Ralph R. (2006), Assistant Professor, Ph.D., Brown University, 1986
- Ostrum, Nicholas (2023), Assistant Professor, Ph.D., Stony Brook University-SUNY, 2017
- Parsons, Elaine (2017), Professor, Ph.D., Johns Hopkins University, 2000

- Scarnecchia, Timothy L. (2007), Professor, Ph.D., University of Michigan, 1994
- Seelye, James E. (2010), Associate Professor, Ph.D., University of Toledo, 2010
- Sergi, Molly M. (1991), Professor, Ph.D., Kent State University, 2015
- Smith, Elizabeth M. (2001), Associate Professor, Ph.D., Rutgers, The State University of New Jersey, 2001
- Starkey, Lindsay J. (2012), Associate Professor, Ph.D., University of Wisconsin, Madison, 2012
- Steigmann-Gall, Richard A. (2000), Associate Professor, Ph.D., University of Toronto, 1999
- Strate, Shane (2013), Associate Professor, Ph.D., University of Wisconsin, Madison, 2009
- Wamsley, E. Sue S. (2005), Associate Professor, Ph.D., The Ohio State University, 1998

Department of Mathematical Sciences Faculty

- Adams, Lynn (2007), Senior Lecturer, M.S., University of Akron, 2007
- Al-Niemi, Fearase (2024), University of Akron
- Alexopoulos, John K. (1994), Associate Professor, Ph.D., Kent State University, 1992
- Allen, Aaron C. (2014), Lecturer, B.S., Rensselaer Polytechnic Institute, 2011
- Allouba, Hassan A. (2002), Associate Professor, Ph.D., Cornell University, 1996
- Andaloro, Paul J. (1994), Assistant Professor, Ph.D., The Ohio State University, 1989
- Andriyevskyy, Volodymyr (2000), Professor, Ph.D., Institute of Mathematics of Ukrainian Academy of Sciences, 1986
- Arokiasamy, Daisy Malini (2015), Lecturer, M.S., Kent State University, 2016
- Barb, Cynthia M. (1990), Associate Professor, Ph.D., Kent State University, 1997
- Benjamin, Judy I. (2002), Assistant Professor, Ph.D., Kent State University, 2022
- Chebotar, Mikhail (2006), Professor, Ph.D., Moscow State University, 1999
- Clos, Timothy G. (2020), Assistant Professor, Ph.D., University of Toledo, 2017
- Das, Lovejoy S. (1989), Professor, Ph.D., University of Lucknow, 1979
- Davidson, Morley A. (1996), Associate Professor, Ph.D., University of Michigan, 1995
- de la Cruz Cabrera, Omar (2016), Associate Professor
- Dhaher, Yaser Y. (1989), Professor, Ph.D., Kent State University, 2007
- Dinh, Hai Q. (2004), Professor, Ph.D., Ohio University, 2003
- Dunlap, Laurie A. (2021), Associate Professor, Ph.D., University of Cincinnati, 2005
- Fesli, Emily E. (2021), Lecturer, M.S., Cleveland State University, 2021
- Gordon, Peter (2017), Associate Professor, Ph.D., Moscow University, 1999
- He, Min (1995), Professor, Ph.D., Southern Illinois University-Carbondale, 1994
- Hovhannisyan, Gro (2003), Professor, Ph.D., Yerevan State University, 1990
- Jahangiri, Jay M. (1994), Professor, Ph.D., University of York, 1986
- Jiafeng, Jin (2014), Lecturer, Ph.D., Kent State University, 2024

- Kasturiarachi, Aloysius B. (1995), Professor, Ph.D., University of North Carolina-Charlotte, 1993
- Khan, Mohammad K. (1981), Professor, Ph.D., Case Western Reserve University, 1980
- Kover, Janice S. (1996), Associate Professor, Ph.D., Kent State University, 2001
- Kracht, Darci L. (1984), Professor, Ph.D., Kent State University, 2011
- Kratky, Joseph J. (2005), Associate Lecturer, M.S., Kent State University, 2011
- Law, Chelsea C. (2021), Associate Lecturer, M.S., Clemson University, 2012
- Lewis, Mark L. (1996), Professor, Ph.D., University of Wisconsin-Madison, 1995
- Li, Jing (2003), Associate Professor, Ph.D., New York University, 2002
- Li, Jun (2013), Associate Professor, Ph.D., Iowa State University, 2013
- Lochmueller, Kerri K. (2005), Associate Lecturer, M.S., Youngstown State University, 2008
- Meinke, Ashley M. (2009), Lecturer, M.S., Kent State University, 2011
- Miller, Robert L. (2021), Lecturer, M.S., Miami University, 2006
- Mocioalca, Oana (2004), Associate Professor, Ph.D., University of Florida, 2002
- Mulqueeny, Ellen S. (2005), Professor, M.S., Cleveland State University, 1993
- Najafi, Mahmoud (1995), Professor, Ph.D., Wichita State University, 1994
- Nazarov, Fedor L. (2011), Professor
- Neal, Todd A. (2010), Assistant Professor, Ph.D., University of Alabama, 2016
- Ngunkeng, Grace (2021), Associate Professor, Ph.D., Bowling Green State University, 2013
- Osikiewicz, Beth-Allyn (1994), Associate Professor, Ph.D., Kent State University, 2000
- Osikiewicz, Jeffrey A. (1990), Associate Professor, Ph.D., Kent State University, 1997
- Palffy-Muhoray, Peter (1987), Professor
- Palocyi, Frank J. (1991), Associate Lecturer, M.S., Youngstown State University, 1990
- Perera, Vicumpriya S. (1998), Associate Professor, Ph.D., Purdue University, 1993
- Pham, Tuyet D. (1988), Senior Lecturer, M.S., University of Akron, 1988
- Rajaram, Rajeev (2008), Professor, Ph.D., Iowa State University, 2005
- Reed, Beverly M. (1986), Professor, Ph.D., Kent State University, 2007
- Reichel, Lothar (1991), Professor, Ph.D., University of Stockholm, 1982
- Ritchey, Nathan P. (2016), Professor
- Ruff, Oliver (2009), Associate Professor, Ph.D., University of Oregon, 2002
- Ryabogin, Dmitry (2007), Professor, Ph.D., University of Jerusalem, 2001
- Sarver, Michael W. (2021), Associate Professor, Ph.D., Bowling Green State University, 2006
- Schmalzried, Robert J. (2017), Associate Lecturer, M.S.Ed., Youngstown State University, 2004
- Smithies, Laura A. (1997), Associate Professor, Ph.D., University of Utah, 1997
- Soprunova, Evgenia (2007), Professor, Ph.D., University of Toronto, 2002
- Spalsbury, Angela S. (2018), Associate Professor, Ph.D., Kent State University, 1996
- Stadden, Jared M. (2013), Associate Lecturer, M.B.A., Kent State University, 2012
- Taha, Nader F. (1990), Senior Lecturer, M.S., Tennessee State University, 1989
- Trehan, Dawn M. (2019), Assistant Professor, M.S., Case Western Reserve, 1996
- Tsai, Tsung-Heng (2019), Associate Professor, Ph.D., Virginia Tech, 2014
- Vezvaei, Mahbobeh (1983), Professor, Ph.D., Case Western Reserve University, 1987
- Vorhauer, Ulrike M. (2001), Associate Professor, Ph.D., University of Ulm, 1996
- Wakita, Hideki (1998), Senior Lecturer, M.A., Kent State University, 2002
- White, Donald L. (1989), Professor, Ph.D., Yale University, 1987
- Wright, Brian M. (1998), Associate Professor, Ph.D., Kent State University, 2007
- Yeon, Hyemin (2024), Assistant Professor, Ph.D., Iowa State University, 2023
- Yu, Gang (2006), Associate Professor, Ed.D., University of Georgia, 2000
- Zheng, Xiaoyu (2006), Professor, Ph.D., University of North Carolina-Chapel Hill, 2006
- Zvavitch, Artem (2004), Professor, Ph.D., Weizmann Institute of Science, 2002

Department of Modern and Classical Language Studies Faculty

- Baer, Brian J. (1996), Professor, Ph.D., Yale University, 1996
- Bilali, Loubna (2008), Associate Professor, Ph.D., Kent State University, 2018
- Brett-Paez, Maria C. (2009), Associate Lecturer, M.A., Kent State University, 2013
- Carduner, Jessie (1998), Associate Professor, Ph.D., University of Pittsburgh, 1998
- Carl, Michael (2018), Professor, Ph.D., Kent State University
- Castaneda-Vise, Daniel A. (2007), Professor, Ph.D., West Virginia University, 2007
- Chism, Rebecca L. (1999), Associate Professor, Ph.D., Florida State University, 2000
- Dunne, Keiran J. (2000), Professor, Ph.D., Pennsylvania State University, 2000
- Dzero, Irina (2010), Assistant Professor, Yale University, 2009
- Gallagher, Patrick L. (2001), Associate Professor, Ph.D., University of Iowa, 1997
- Gee, Jacqueline L. (2009), Lecturer, M.Ed., Kent State University, 2016
- Hall, Jennifer E. (2008), Lecturer, M.Ed., University of Akron, 2015
- Harvey, Brian K. (1999), Professor, Ph.D., University of Michigan-Ann Arbor, 1998
- Harvey, Sarah M. (2001), Professor, Ph.D., University of Michigan, Ann Arbor, 1999
- Hermosilla, Luis G. (1994), Associate Professor, Ph.D., The Ohio State University, 1994
- Kish-Leland, Farah (2009), Lecturer, B.A., Kent State University, 2012

- Koby, Geoffrey S. (1994), Professor, Ph.D., University of Wisconsin, Madison, 1992
- Lacruz, Isabel (1998), Professor, Ph.D., Kent State University, 2005
- Larson, Jennifer L. (1992), Professor, Ph.D., University of Wisconsin-Madison, 1992
- Lemley, Lauren (2013), Lecturer, M.Ed., Kent State University, 2021
- Mirkin-McGee, Lori L. (1995), Associate Lecturer, M.A., Kent State University, 1997
- Nehring, Lawrence J. (2008), Associate Lecturer, M.S., University of Rochester, 1991
- Riclet, Aurelien (2022), Lecturer
- Rivera, Olga I. (1999), Professor, Ph.D., The Ohio State University, 1998
- Roberts, Trask P. (2022), Assistant Professor, Ph.D., University Of Pennsylvania, 2022
- Romero-Gonzalez, Mariana (2009), Associate Lecturer, M.A., Kent State University, 2012
- Rossoll, Hildegard M. (1988), Associate Professor, Ph.D., Washington University in St. Louis, 1991
- Sato, Paula K. (2009), Associate Professor, Ph.D., University Of Virginia-Main Campus, 2008
- Shiyab, Said M. (2014), Professor
- Shuman, Mason P. (2005), Associate Lecturer, M.A., Kent State University, 2006
- Siciarz, Stephanie J. (2012), Associate Lecturer, M.A., Johns Hopkins University, 2007
- Song, Yumei (2018), Assistant Professor, Kyoto University, 2017
- Stahler, Bethany C. (2009), Lecturer, M.Ed., Kent State University, 2020
- Stasiowski, Kristin (2013), Assistant Professor
- Talentino, Kimberly L. (2007), Associate Lecturer, M.A., Kent State University, 1991
- Tanaka, Eriko (2010), Associate Lecturer, M.A., Bowling Green State University, 2001
- Trzeciak Huss, Joanna (2006), Professor, Ph.D., University Of Chicago
- Vickery, Steve C. (1997), Lecturer, B.A., Kent State University, 1998
- Villa-Ignacio, Teresa (2022), Associate Professor, Ph.D., Brown University, 2010
- Washbourne, Richard K. (2003), Professor, Ph.D., University of Massachusetts-Amherst, 2002
- Yu, Hui (2012), Associate Lecturer
- Zaldivar, Maria E. (2007), Professor, Ph.D., Pennsylvania State University, 1991

Department of Philosophy Faculty

- Barnbaum, Deborah R. (1997), Professor, Ph.D., University of Massachusetts-Amherst, 1996
- Byron, Michael B. (1997), Professor, Ph.D., University of Notre Dame, 1996
- Coate, Matthew B. (2015), Assistant Professor, Ph.D., Stony Brook University, 2015
- Garchar, Kimberly K. (2008), Associate Professor, Ph.D., University of Oregon, 2006
- Palmer, Daniel E. (2001), Associate Professor, Ph.D., Purdue University, 2000
- Pereplyotchik, David (2013), Associate Professor, Ph.D., City University of New York Graduate Center, 2012

- Ryan, Frank X. (1997), Associate Professor, Ph.D., Emory University, 1996
- Smith, Deborah C. (1997), Professor, Ph.D., University of Washington, 2003
- Zavota, Gina (2003), Professor, Ph.D., State University of New York-Stony Brook, 2003

Department of Physics Faculty

- Antocheviz Dexheimer Strickland, Veronica A. (2013), Associate Professor, Ph.D., Goethe Universitat, 2009
- Balci, Hamza (2009), Professor, Ph.D., University of Maryland, 2004
- Bos, Philip J. (1994), Professor, Ph.D., Kent State University, 1978
- Driscoll, Donald D. (2007), Associate Professor, Ph.D., Case Western Reserve University, 2004
- Dzero, Maxim (2010), Professor
- Ellman, Brett D. (1997), Associate Professor, Ph.D., University of Chicago, 1993
- Fregoso, Benjamin (2017), Associate Professor, University of Illinois-Urbana, 2010
- Gleeson, James T. (1997), Professor, Ph.D., Kent State University, 1991
- Jakli, Antal I. (1989), Professor, Ph.D., University Of Budapest, 1988
- Katramatou, A. Mina T. (1996), Professor, Ph.D., American University, 1988
- Keane, Declan F. (1988), Professor, Ph.D., University College of Dublin
- Lavrentovich, Oleg D. (1992), Trustees Research Professor, Kiev University, 1990
- Li, Ran (2007), Associate Professor, Ph.D., Southern Illinois University, Carbondale, 2007
- Mann, Elizabeth K. (1998), Professor, Ph.D., University of Paris, 1992
- Petratos, Gerassimos G. (1994), Professor, Ph.D., American University, 1988
- Polak, Robert D. (2022), Associate Professor
- Portman, John J. (2003), Professor, Ph.D., University of Illinois-Urbana, 2000
- Quader, Khandker F. (1990), Professor, Ph.D., State University of New York-Stony Brook, 1983
- Schmidt, Thorsten-Lars (2019), Associate Professor
- Schroeder, Almut (2001), Associate Professor
- Selinger, Jonathan V. (2005), Professor, Ph.D., Harvard College, 1989
- Selinger, Robin L. (2005), Professor, Ph.D., Harvard College, 1989
- Sprunt, Samuel N. (1995), Professor, Ph.D., Massachusetts Institute of Technology, 1989
- Vanfossen, Joseph A. (2004), Associate Professor, Ph.D., Kent State University, 2017
- Yokoyama, Hiroshi (2009), Professor, Ph.D., Tokyo International University, 1987

Department of Political Science Faculty

- Ayres, William R. (2022), Professor
- Banks, Christopher P. (2006), Professor, Ph.D., University of Virginia, 1995
- Carbonell, Joel R. (2007), Associate Professor, Ph.D., University of California, Riverside, 2007
- Cassell, Mark K. (1998), Professor, Ph.D., University of Wisconsin-Madison, 1998
- Chand, Daniel E. (2016), Associate Professor

- Claassen, Ryan L. (2005), Professor, Ph.D., University of California-Davis, 2005
- Dzordzormenyoh, Michael K. (2022), Assistant Professor, Ph.D., University Of South Dakota, 2019
- Ensley, Michael J. (2009), Professor, Ph.D., Duke University, 2002
- Hawes, Daniel P. (2008), Professor, Ph.D., Texas A&M University, Main Campus, 2008
- Miller, Patrick R. (2023), Associate Professor, Ph.D., University of North Carolina-Chapel Hill, 2010
- Molina, Anthony D. (2013), Associate Professor, Ph.D., Cleveland State University, 2004
- Paar-Jakli, Gabriella (1991), Associate Professor, Ph.D., Kent State University, 2010
- Schmidt, Sarah (2015), Assistant Professor, Ph.D., Kent State University, 2023

Department of Psychological Sciences Faculty

- Black, Sarah R. (2023), Assistant Professor, Ph.D., Stony Brook University, 2015
- Blasiman, Rachael N. (2010), Associate Professor, Ph.D., Case Western Reserve University, 2010
- Casto, Kathleen V. (2023), Assistant Professor, Ph.D., Emory University, 2016
- Ciesla, Jeffrey (2007), Professor, Ph.D., University at Albany-SUNY, 2004
- Ciesla, Shannon N. (2007), Professor, Ph.D., Kent State University, 2013
- Coifman, Karin G. (2010), Professor, Ph.D., Columbia University, 2008
- Cremeans-Smith, Julie K. (1998), Professor, Ph.D., Kent State University, 2004
- Delahanty, Douglas L. (1997), Professor, Ph.D., University of Pittsburgh, 1997
- Evey, Julie A. (2018), Associate Professor, Ph.D., Kent State University, 1998
- Flessner, Christopher A. (2011), Professor, Ph.D., University of Wisconsin, Milwaukee, 2008
- Folk, Jocelyn R. (1999), Associate Professor, Ph.D., University of South Carolina, Columbia, 1997
- Frey, Katelyn T. (2023), Assistant Professor, M.A., University of Akron, 2021
- Galati, Ashley R. (2013), Associate Professor, Ph.D., University of Kentucky, 2013
- Gere, Judith (2013), Associate Professor
- Gilman, Tracy L. (2020), Assistant Professor, Ph.D., Penn State University, 2013
- Gunstad, John J. (2005), Professor, Ph.D., Ohio University, 2002
- Hamrick, Phillip M. (2013), Associate Professor, Ph.D., Georgetown University, 2013
- Himmelstein, Mary S. (2019), Assistant Professor, Ph.D., Rutgers University, 2016
- Hughes, Joel W. (2003), Professor, Ph.D., The Ohio State University, 2001
- Jones, Bryan A. (2010), Associate Professor, Ph.D., State University of New York-Stony Brook, 2007
- Joynes, Robin L. (2000), Professor, Ph.D., Texas A&M University-Main Campus, 1998
- Keiller, Scott W. (1989), Associate Professor, Ph.D., Kent State University, 1997
- Larwin, David A. (1985), Senior Lecturer, M.A., Kent State University, 1989
- Lechner, William (2017), Associate Professor, Ph.D., Oklahoma State University, 2015
- Miller, Eric D. (1999), Associate Professor, Ph.D., University of Iowa, 1999
- Neal-Barnett, Angela M. (1989), Professor, Ph.D., DePaul University, 1988
- Sato, Amy F. (2012), Professor, Ph.D., University of Wisconsin-Milwaukee, 2009
- Sciarrelli, Sharon M. (2007), Professor, Ph.D., Kent State University, 1995
- Sefcek, Jon A. (2011), Associate Professor, Ph.D., University of Arizona, 2007
- Shepherd, James B. (1986), Assistant Professor, Ph.D., Kent State University, 1996
- Spitznagel, Mary Beth (2009), Professor, Ph.D., Ohio University, 2003
- Tabak, Melanie A. (2003), Professor, Ph.D., Kent State University, 2008
- Taber, Jennifer M. (2016), Associate Professor
- Thompson, Clarissa A. (2014), Professor, Ph.D., The Ohio State University, 2008
- Tomich, Patricia L. (1994), Professor, Ph.D., Kent State University, 2000
- Updegraff, Alanna S. (2012), Professor, Ph.D., University of California-Los Angeles, 2003
- Updegraff, John A. (2004), Professor, Ph.D., University of California-Los Angeles, 2002
- Was, Christopher A. (2005), Professor, Ph.D., University of Utah, 2005
- Weigold, Arne (2019), Professor, Ph.D., Texas Tech University, 2008
- Williams, Trevor F. (2024), Assistant Professor, Ph.D., University at Buffalo-SUNY, 2020
- Zaragoza, Maria S. (1984), Professor, Ph.D., Johns Hopkins University, 1984

Department of Sociology and Criminology Faculty

- Adams, Richard E. (2007), Professor, Ph.D., Indiana University-Bloomington, 1989
- Bloch, Katrina R. (2008), Professor, Ph.D., North Carolina State University, 2009
- Campbell, Beth A. (2005), Professor, Ph.D., University of Akron, 2018
- Catto, Rebecca (2016), Associate Professor
- Chopko, Brian A. (2007), Professor, Ph.D., University of Akron, 2007
- Dum, Christopher (2014), Associate Professor, Ph.D., University at Albany-SUNY, 2014
- Fisk, Susan R. (2015), Professor, Ph.D., Stanford University, 2015
- Foster, Michelle L. (2010), Senior Lecturer, M.A., Kent State University, 2011
- Gallagher, Mary N. (2001), Associate Professor, Ph.D., Kent State University, 2012
- Gibson, Gregory C. (2012), Professor, Ph.D., Purdue University, 2008
- Goar, Carla D. , Professor
- Graff, David R. (1994), Senior Lecturer, M.S., Mercyhurst College, 1984
- Haas, Anne E. (1996), Professor, Ph.D., The Ohio State University, 2005

- Jones, Adrian M. (2001), Associate Professor, Ph.D., Kent State University, 2012
- Kalkhoff, William W. (2002), Professor, Ph.D., University of Iowa, 2002
- Kunkle, Susan M. (2004), Professor, Ph.D., Kent State University, 2011
- Leveto, Jessica A. (2005), Associate Professor, Ph.D., Kent State University, 2012
- Licuanan-Galela, Maria N. (1995), Associate Professor, Ph.D., University of Illinois, Urbana-Champaign, 1995
- Lowery, Allen (2014), Assistant Professor
- Marcussen, Kristen A. (2000), Professor, Ph.D., University of Iowa, 2000
- Mastriacovo, Paul A. (1982), Senior Lecturer, J.D., University of Akron, 1978
- Nader, Elias (2021), Assistant Professor, Ph.D., University Of Massachusetts-Lowell, 2019
- Nasheri, Hedieh (1990), Professor, Ph.D., Case Western Reserve, 1992
- Pai, Manacy (2008), Professor, Ph.D., Florida State University, 2008
- Ray, Kasey (2015), Associate Professor, Ph.D., University of Akron, 2015
- Robison, Kristenne M. (2019), Assistant Professor, Ph.D., Syracuse University, 2010
- Rose, Lydia (2010), Associate Professor, Ph.D., Purdue University, 1997
- Rose, Norman R. (2007), Associate Professor
- Roxburgh, Susan J. (1994), Professor, Ph.D., University of Toronto, 2020
- Shura, Robin A. (2018), Associate Professor, Ph.D., Case Western Reserve, 2010
- Solomon, Starr (2018), Associate Professor, Ph.D., University of Nebraska Omaha, 2018
- Stacey, Clare L. (2006), Associate Professor, Ph.D., University of California-Davis, 2004
- Taylor, Tiffany L. (2008), Professor, Ph.D., North Carolina State University at Raleigh, 2008
- Tontodonato, Pamela (1987), Associate Professor, Ph.D., University of Pennsylvania, 1986
- Vander Horst, Anthony (2011), Professor, The Ohio State University, 2012
- Warren, Deirdre M. (2009), Associate Professor, Ph.D., Sam Houston State University, 2009
- Wilson, Mary G. (1998), Professor, Ph.D., Kent State University, 2010

School of Multidisciplinary Social Sciences and Humanities Faculty

- Barnes, Andrew S. (2001), Associate Professor, Ph.D., Princeton University, 1999
- Bartell, Denise S. (2022), Professor
- Holt, Suzanne L. (1984), Professor, Ph.D., Kent State University, 1994
- Kim, Jung-Yeup (2008), Associate Professor, Ph.D., University of Hawaii-Manoa, 2008
- Mazzei, Julie M. (2004), Professor, Ph.D., American University, 2006
- Odell-Scott, David (1990), Professor, Ph.D., Vanderbilt University, 1989
- Paar Conroy, Amanda M. (2013), Associate Professor, J.D., Cleveland State University, 2005
- Peterson, Mary S. (2016), Associate Professor, J.D., Bowling Green State University, 1987

- Stacher, Joshua A. (2008), Professor
- Vachon, Lauren (2012), Associate Professor, M.F.A., Kent State University, 2013

School of Peace and Conflict Studies Faculty

- Arai, Tatsushi (2019), Professor, Ph.D., George Mason University, 2005
- Bleak, Jacquelyn K. (2014), Associate Lecturer, M.S., George Mason University, 2012
- Cooper, Neil (2019), Professor
- Cunningham, Karen D. (1990), Professor, J.D., Washington and Lee University, 1986
- Hancock, Landon E. (2006), Professor, Ph.D., George Mason University, 2003
- Hsiao, Elaine C. (2021), Associate Professor, Ph.D., University of British Columbia, 2018
- Koopman, Sara (2017), Associate Professor, Ph.D., University of British Columbia, 2012
- Merryman, Molly B. (1996), Associate Professor, Ph.D., Bowling Green State University, 2007
- Nickels, Ashley E. (2016), Professor, Ph.D., Rutgers University, 2016
- Solomon, Johanna A. (2017), Associate Professor, Ph.D., University of California, Irvine, 2015

College of Sciences and Humanities

Arts and Sciences (AS)

AS 10010 SCIENCE EXPERIENCE 1 Credit Hour

(Repeatable for credit) Students gain experience in research methods via participation in mentored hands-on science research projects. Each student works on an individual basis in consultation with their assigned research mentor. Laboratory safety training is provided and required for the projects. Students must have completed or be co-enrolled in at least one college level (or advanced placement) class in a relevant STEM discipline.

Prerequisite: Special approval.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter-IP

AS 20010 SUCCESS IN A FLASH 1 Credit Hour

This course provides useful and timely academic resources to help students achieve academic success. Time prioritization, academic motivation, goal setting, mindset and various learning techniques are covered.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

AS 20095 SPECIAL TOPICS 1-4 Credit Hours

(Repeatable for credit) This course, administered by the dean, is intended to encourage interdisciplinary study, to cover areas not treated adequately in traditional coursework and to make available promptly the new and significant experience of the faculty.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

AS 30092 INTERNSHIP (ELR) 1-12 Credit Hours

(Repeatable for credit) Students participate in internships under the direction of a faculty member.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 3-36 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

AS 30095 SPECIAL TOPICS 1-4 Credit Hours

(Repeatable for credit) This course, administered by the dean, is intended to encourage interdisciplinary study to cover areas not treated adequately in traditional coursework and to make available promptly the new and significant experience of the faculty.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

AS 30189 STUDY ABROAD: SPECIAL TOPICS (ELR) 1-3 Credit Hours

(Repeatable for credit) A Kent State faculty-led study abroad experience that integrates traditional classroom learning with experiential activities and site visits outside the United States.

Prerequisite: Special approval.

Schedule Type: International Experience

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

AS 30196 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) A student-initiated experience to pursue an area of interest not covered by a regular course offering, with the guidance of a Kent State faculty member.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

AS 30290 STUDY AWAY: SPECIAL TOPICS (ELR) 1-3 Credit Hours

(Repeatable for credit) A Kent State faculty-led out-of-classroom experience that integrates traditional classroom learning with experiential activities and site visits within the United States.

Prerequisite: Special approval.

Schedule Type: Study Away

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

AS 30798 GENDER AND SEXUALITY RESEARCH FORUM (ELR) 3 Credit Hours

Allows students to do research in areas of gender and sexuality that connects to their own interests, which will be presented in public settings such as panels and presentations.

Prerequisite: None.

Schedule Type: Lecture, Research

Contact Hours: 1 lecture, 2 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

AS 41099 CAPSTONE IN GENDER AND SEXUALITY STUDIES (ELR) 3 Credit Hours

Students will be expected to design and implement an individualized exploration that demonstrates the interactions of theory and application, ideas and practice, and is reflective of the tenets of the interdisciplinary field of gender and sexuality.

Prerequisite: None.

Schedule Type: Lecture, Research

Contact Hours: 1 lecture, 2 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

AS 50095 SPECIAL TOPICS 1-4 Credit Hours

(Slashed with AS 70095) (Repeatable for credit) Topic to be announced in the schedule of classes.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

AS 50096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Pursuit of a subject matter beyond normal course coverage, supervised by a graduate faculty member.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

AS 60092 INTERNSHIP 1-6 Credit Hours

(Repeatable for credit) Students participate in internships under the direction of a faculty member.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

AS 70095 SPECIAL TOPICS 1-4 Credit Hours

(Slashed with AS 50095) (Repeatable for credit) Topic to be announced in the schedule of classes.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

AS 70096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Pursuit of a subject matter beyond normal course coverage, supervised by a graduate faculty member.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Biotechnology (BTEC)**BTEC 10210 INTRODUCTION TO BIOTECHNOLOGY 3 Credit Hours**

Basic principles and applications of modern biotechnology, including recombinant DNA technology, microbial technology, fermentation, genetic engineering, plant and animal tissue culture and medical biotechnology. Lecture three hours weekly.

Prerequisite: BSCI 10120.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BTEC 40191 SEMINAR: RECENT DEVELOPMENTS IN BIOTECHNOLOGY 1 Credit Hour

Recent developments in biotechnology explored through the presentation and discussion of research articles and reviews in the biotechnology literature.

Prerequisite: BTEC 10210; BSCI 30140, 30171, 30156; CHEM 30284.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

BTEC 40192 INTERNSHIP IN BIOTECHNOLOGY (ELR) 2-9 Credit Hours

(Repeatable for credit) Work experience in a biotechnology laboratory. Registration requires approval of program director and is dependent on availability of internship sites. Written report of activities required.

Prerequisite: Biotechnology major.

Schedule Type: Practical Experience

Contact Hours: 2-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

BTEC 40196 INDIVIDUAL INVESTIGATION IN BIOTECHNOLOGY (ELR) 2-9 Credit Hours

(Repeatable for credit) Research experience in biotechnology. Registration requires approval of program director and research director. Written report required.

Prerequisite: Biotechnology major.

Schedule Type: Individual Investigation

Contact Hours: 2-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

BTEC 40210 CASE STUDIES IN BIOTECHNOLOGY (WIC) 3 Credit Hours

Case studies used to explore biotechnology practice and the application of various technologies in industry and medicine. Emphasis placed on developing problem solving, information gathering, inductive reasoning and technical communication skills.

Prerequisite: BSCI 30140 and BSCI 30156 and BSCI 30171 and BSCI 40158 and BTEC 10210 and CHEM 30284.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

BTEC 40220 BIOINFORMATICS 3 Credit Hours

(Cross-listed with BSCI 40220, BSCI 50220 and BSCI 70220) Analysis of biological databases, including nucleic acid and protein sequence searching, multiple sequence alignment, protein classification, phylogenetic analysis, comparative genomics, proteomics, protein structure analysis.

Prerequisite: BSCI 30140 and BSCI 30156 and BSCI 40158.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BTEC 40463 MEDICAL BIOTECHNOLOGY 3 Credit Hours

(Cross-listed with BSCI 40463, BSCI 50463 and BSCI 70463) Medical Biotechnology provides a basic understanding of how living cells and cellular materials can be used for medical applications, particularly in the diagnosis and therapy of human diseases.

Prerequisite: BSCI 30140.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Data Science (DATA)**DATA 69099 CAPSTONE PROJECT 3,6 Credit Hours**

(Repeatable for credit) The course is an integrative experience that brings together all components of Master's nonthesis graduate program in an applied, hands-on real-world setting. The course is 3 credit hours when taken once in conjunction with DATA 69192. However, DATA 69192 can be substituted by additional 3 credit hours of DATA 69099 making capstone project 6 credit hours (taken twice).

Prerequisite: Graduate standing and special approval.

Schedule Type: Project or Capstone

Contact Hours: 0 lecture, 0 lab, 3-6 other

Grade Mode: Standard Letter-IP

DATA 69192 GRADUATE INTERNSHIP 1-3 Credit Hours

(Repeatable for credit) Supervised experience in the Master program in Data Science. Since this work will be outside the department, a report and a final presentation will be required.

Prerequisite: Graduate Standing and special approval.

Schedule Type: Practical Experience

Contact Hours: 0 lecture, 0 lab, 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

DATA 69199 THESIS I 2-6 Credit Hours

(Repeatable for credit) Thesis student must register for total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

DATA 69299 THESIS II 2 Credit Hours

(Repeatable for credit) Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: DATA 69199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Materials Science (MTSC)**MTSC 60199 THESIS I 2-6 Credit Hours**

Thesis students must register for a total of 6 credit hours, 2 to 6 credit hours in a single semester or distributed over two semesters if desired.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

MTSC 60299 THESIS II 2 Credit Hours

Thesis students must continually register each semester until all degree requirements are met.

Prerequisite: MTSC 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

MTSC 60498 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits earned may be applied toward meeting degree requirements with department approval. **Prerequisite:** Graduate standing; and special approval

Schedule Type: Research

Contact Hours: 3-45 other

Grade Mode: Satisfactory/Unsatisfactory

MTSC 62241 STATISTICAL MECHANICS OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 72241) Lectures on order, disorder and phase transitions in soft matter. Materials include magnets, gases, liquids, crystalline and amorphous solids and liquid crystals. Theoretical concepts include order parameters to describe broken symmetry, mean-field theory, Landau theory for uniform and nonuniform systems, elasticity of orientational order and topological defects.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 62242 CHARACTERIZATION OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 72242) Course provides students with the fundamentals of the most commonly used techniques for the study and understanding of soft matter at the macroscopic and microscopic level, especially at the nanometer scale. The advancement in basic soft matter research is generally driven by the experimental techniques available and the interdisciplinary knowledge among condensed matter physicists, biologists, synthetic and physical chemists, as well as chemical and polymer engineers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 62245 FUNDAMENTALS OF LIQUID CRYSTAL SCIENCE 4 Credit Hours

(Slashed with MTSC 72245) Basic liquid crystals structures and their main physical properties, such as visco-elastic, electric, magnetic and optical properties, except the nature of their phase transitions. Also discussed are their interactions with surfaces and the structural defects that they can form.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MTSC 62248 LIQUID CRYSTAL OPTICS AND PHOTONICS 4 Credit Hours

(Slashed with MTSC 72248) Optics of cholesterics, liquid crystalline photonic bandgap materials, nonlinear optics of liquid crystals; optomechanical effects in liquid crystal elastomers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MTSC 62249 LABVIEW FOR DATA ACQUISITION AND INSTRUMENT CONTROL 1 Credit Hour

(Slashed with MTSC 72249) Introduction to laboratory data acquisition and instrument control using LabVIEW software.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

MTSC 62335 ADVANCED LIQUID CRYSTALLINE AND POLYMERIC MATERIALS 4 Credit Hours

(Slashed with MTSC 72335) Course introduce students to recent advances in liquid crystals and polymers with emphasis on structure-property relationships, physical and optical properties, and their applications. Liquid crystals and polymers are soft matters of two important disciplines of science and technology. They both have a similar history and are rich in physical and optical properties useful for fundamental and applied research.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

MTSC 62450 LIQUID CRYSTAL OPTICS I: THEORY 2 Credit Hours

(Slashed with MTSC 72450) Provides an introduction to optical phenomena with an emphasis on liquid crystals, from geometrical optics to Maxwell's equations. Basic principles are used to analyze and solve optics problems arising in liquid crystal engineering.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MTSC 62452 LIQUID CRYSTAL OPTICS II: OPTICAL SYSTEMS 2 Credit Hours

(Slashed with MTSC 72452) Focuses on the study of practical optical systems with an emphasis on liquid crystals. Students study the principles of optical system design starting with the understanding of basic optical components such as lenses, mirrors, filters and polarizers. Practical concepts and techniques for the implementation of optical instruments and displays are mastered through lectures and lab work.

Prerequisite: MTSC 62450; and graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1 lecture, 2 lab

Grade Mode: Standard Letter

MTSC 62460 LIQUID CRYSTAL MATERIALS SCIENCE 2 Credit Hours

(Slashed with MTSC 72460) Familiarizes students with the basic, underlying chemical concepts in liquid crystal science. These concepts include molecular structures and properties of liquid crystal molecules, miscibility rules and micro-segregation of chemically incompatible molecular segments, physical and electronic properties of aromatic compounds including heterocycles and fluorinated aromatics, properties of aliphatic and perfluorinated hydrocarbons, unsaturation, and chirality. Other aspects covered in later sections of this course relate to auxiliary and novel materials used in liquid crystal devices such as polymers, carbon nanomaterials, metal and semiconductor nanoparticles and photo-responsive organic materials.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MTSC 62462 LIQUID CRYSTAL SCIENCE: PHYSICAL PROPERTIES 3 Credit Hours

(Slashed with MTSC 72462) Basics of liquid crystal defects and their behavior in magnetic and electric fields.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 62640 LIQUID CRYSTAL, POLYMER AND COLLOID COMPOSITES 4 Credit Hours

(Slashed with MTSC 72640) Interdisciplinary science of systems consisting of liquid crystal, polymer and colloid. Statistical physics of composite systems, mixing free energy, phase separation principle, phase diagrams and phase separation dynamics. States, structures and free energies of liquid crystal, polymer and colloidal systems. Polymer dispersed liquid crystals (PDLC), polymer stabilized liquid crystals (PSCT) and their applications. Laboratory experiments on composite systems and fabrication of PDLC and PSCT light shutters.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

MTSC 62643 ELECTRO-OPTICS OF LIQUID CRYSTALS: MODELING AND DEVICE DESIGN 3 Credit Hours

(Slashed with MTSC 72643) Apply knowledge of liquid crystals and optics to the design of liquid crystal electro-optical devices. Emphasis is on modeling of devices and the use of that modeling to optimize device characteristics. Several particular device designs are considered to familiarize students with the state of the art in electro-optical applications of liquid crystals and to prepare them to advance the art in future designs.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 62647 STRUCTURED FLUIDS 3 Credit Hours

(Slashed with MTSC 72647) The basics of fluids having internal structures, such as long range orientational order and or one and two dimensional positional order. Materials include thermotropic smetic, lamellar lyotropic and columnar liquid crystals, soap films, fluid foams, fluid fibers and Langmuir monolayers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 62650 COMPUTATIONAL MATERIALS SCIENCE 3 Credit Hours

(Slashed with MTSC 72650) Materials modeling at the classical (i.e. non-quantum) level. Monte Carlo methods; molecular dynamics simulation; mesoscale models; numerical methods; case studies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 62651 NANOTECHNOLOGY 3 Credit Hours

(Slashed with MTSC 72651) Course presents the concepts, principles and the state-of-the-arts of nanotechnologies and their applications in biological and biomedical science and engineering. Focus is on the fundamental physical principles and engineering technologies of device miniaturization and system integration for bioapplications.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 63000 PHYSICS OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 73000) Students learn the basics of physics of soft matter, including polymers, liquid crystals, colloids, reduced dimensionality fluids and active matter. Course provides students a coherent and deep understanding of the most important concepts and scientific results of soft matter, such as nano-, and microscopic structures, mechanical, electrical and optical properties.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 63010 LYOTROPIC LIQUID CRYSTALS 3 Credit Hours

(Slashed with MTSC 73010) Course covers the fundamentals and the chemical aspects of different types of lyotropic liquid crystals (organic, inorganic, composites) leading to a discussion of phase diagrams and a comprehensive discussion of the characterization techniques of lyotropic liquid crystals. Focuses on some key aspects related to the use of lyotropic liquid crystals in pharmacological and medical applications such as drug delivery and the use of lyotropic liquid crystals as templates or 'reactors' for nanoscale synthesis and mesoscale manufacturing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 63015 CHEMISTRY OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 73015) Course familiarizes students with the basic underlying chemical concepts in soft matter science, focusing on the most important chemical building blocks in soft matter, IUPAC rules for naming them, miscibility rules and micro-segregation of chemically incompatible molecular segments, physical and electronic properties of aromatic compounds, including heterocyclic and fluorinated aromatics, properties of aliphatic and perfluorinated hydrocarbons, unsaturation, structure-property relationships and all levels of chirality (molecular to supramolecular). Other topics focus on specific types of materials explored in soft matter such as polymers, liquid crystals, carbon nanomaterials, metal and semiconductor nanoparticles and light-responsive organic materials, gels, foams and colloids.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 63020 APPLICATIONS OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 73020) Course covers the applications of soft matter that include electro-optical, sensor and biological applications. Recent developments related to emerging applications are covered.

Prerequisite: MTSC 63000; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 63025 ACTIVE MATTER 2 Credit Hours

(Slashed with MTSC 73025) The course is designed to teach the science of active matter which embraces a broad range of dynamic out-of-equilibrium systems comprised of interacting units that are capable of converting stored energy or the energy of the environment into systematic motion. Examples include colloids powered by an electric field, swimming bacteria and living liquid crystals. Theoretical models considered are Vicsek model and Toner-Tu model. The course will provide a coherent picture of the dynamic out-of-equilibrium phenomena.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MTSC 63100 EMERGING DISPLAY TECHNOLOGIES 2 Credit Hours

(Slashed with MTSC 73100) This course focuses on the fundamentals and applications of latest display technologies in transmissive, reflective and emissive displays as well as free-space display technologies. This course is aimed for students who wish to learn more, not limited to liquid crystal devices and applications, but also wide ranges of current and future display technologies, and will intergrate among materials science, physics and engineering with display technologies ranging from direct-view, flexible, wearable and free-space displays.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MTSC 64491 SEMINAR: LIQUID CRYSTALS 1 Credit Hour

(Repeatable for credit) (Slashed with MTSC 74491) Discussion of current literature or original research in liquid crystals. Participation by students, faculty and guests.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

MTSC 64495 SPECIAL TOPICS IN CHEMICAL PHYSICS 1-3 Credit Hours

(Repeatable for credit)(Slashed with MTSC 74495) Topic varies per course offering.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MTSC 65006 LIQUID CRYSTAL DEVICE PROTOTYPING 2 Credit Hours

(Slashed with MTSC 75006) Liquid crystal device prototyping; introduction to liquid crystal device manufacturing methods.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1 lecture, 2 lab

Grade Mode: Standard Letter

MTSC 65008 LIQUID CRYSTAL DEVICE CONSTRUCTION 1 Credit Hour

(Slashed with MTSC 75008) Students acquire the knowledge and experience in basic techniques and procedures for the construction of liquid crystal cells. Students are prepared for successive lab courses and the capstone project based on the clean-room techniques, ITO glass handling, film deposition, surface alignment treatment and cell assembly experienced.

Prerequisite: Graduate standing.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

MTSC 65032 SCIENTIFIC COMMUNICATION 1 Credit Hour

(Slashed with MTSC 75032) Course aims to help graduate students in STEM fields improve their skills in scientific writing and presentations. Activities include a mock panel review of scientific proposals. Students produce a final paper that could serve as the introductory chapter of a thesis or dissertation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

MTSC 72241 STATISTICAL MECHANICS OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 62241) Lectures on order, disorder and phase transitions in soft matter. Materials include magnets, gases, liquids, crystalline and amorphous solids and liquid crystals. Theoretical concepts include order parameters to describe broken symmetry, mean-field theory, Landau theory for uniform and nonuniform systems, elasticity of orientational order and topological defects.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 72242 CHARACTERIZATION OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 62242) Course provides students with the fundamentals of the most commonly used techniques for the study and understanding of soft matter at the macroscopic and microscopic level, especially at the nanometer scale. The advancement in basic soft matter research is generally driven by the experimental techniques available and the interdisciplinary knowledge among condensed matter physicists, biologists, synthetic and physical chemists, as well as chemical and polymer engineers.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 72245 FUNDAMENTALS OF LIQUID CRYSTAL SCIENCE 4 Credit Hours

(Slashed with MTSC 62245) Basic liquid crystals structures and their main physical properties, such as visco-elastic, electric, magnetic and optical properties, except the nature of their phase transitions. Also discussed are their interactions with surfaces and the structural defects that they can form.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MTSC 72248 LIQUID CRYSTAL OPTICS AND PHOTONICS 4 Credit Hours

(Slashed with MTSC 62248) Optics of cholesterics, liquid crystalline photonic bandgap materials, nonlinear optics of liquid crystals; optomechanical effects in liquid crystal elastomers.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MTSC 72249 LABVIEW FOR DATA ACQUISITION AND INSTRUMENT CONTROL 1 Credit Hour

(Slashed with MTSC 62249) Introduction to laboratory data acquisition and instrument control using LabVIEW software.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

MTSC 72335 ADVANCED LIQUID CRYSTALLINE AND POLYMERIC MATERIALS 4 Credit Hours

(Slashed with MTSC 62335) Course introduce students to recent advances in liquid crystals and polymers with emphasis on structure-property relationships, physical and optical properties, and their applications. Liquid crystals and polymers are soft matters of two important disciplines of science and technology. They both have a similar history and are rich in physical and optical properties useful for fundamental and applied research.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

MTSC 72450 LIQUID CRYSTAL OPTICS I: THEORY 2 Credit Hours

(Slashed with MTSC 62450) Provides an introduction to optical phenomena with an emphasis on liquid crystals, from geometrical optics to Maxwell's equations. Basic principles are used to analyze and solve optics problems arising in liquid crystal engineering.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MTSC 72452 LIQUID CRYSTAL OPTICS II: OPTICAL SYSTEMS 2 Credit Hours

(Slashed with MTSC 62452) Focuses on the study of practical optical systems with an emphasis on liquid crystals. Students study the principles of optical system design starting with the understanding of basic optical components such as lenses, mirrors, filters and polarizers. Practical concepts and techniques for the implementation of optical instruments and displays are mastered through lectures and lab work.

Prerequisite: MTSC 72450; and doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1 lecture, 2 lab

Grade Mode: Standard Letter

MTSC 72460 LIQUID CRYSTAL MATERIALS SCIENCE 2 Credit Hours

(Slashed with MTSC 62460) Familiarizes students with the basic, underlying chemical concepts in liquid crystal science. These concepts include molecular structures and properties of liquid crystal molecules, miscibility rules and micro-segregation of chemically incompatible molecular segments, physical and electronic properties of aromatic compounds including heterocycles and fluorinated aromatics, properties of aliphatic and perfluorinated hydrocarbons, unsaturation, and chirality. Other aspects covered in later sections of this course relate to auxiliary and novel materials used in liquid crystal devices such as polymers, carbon nanomaterials, metal and semiconductor nanoparticles and photo-responsive organic materials.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MTSC 72462 LIQUID CRYSTAL SCIENCE: PHYSICAL PROPERTIES 3 Credit Hours

(Slashed with MTSC 62462) Basics of liquid crystal defects and their behavior in magnetic and electric fields.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 72640 LIQUID CRYSTAL, POLYMER AND COLLOID COMPOSITES 4 Credit Hours

(Slashed with MTSC 62640) Interdisciplinary science of systems consisting of liquid crystal, polymer and colloid. Statistical physics of composite systems, mixing free energy, phase separation principle, phase diagrams and phase separation dynamics. States, structures and free energies of liquid crystal, polymer and colloidal systems. Polymer dispersed liquid crystals (PDLC), polymer stabilized liquid crystals (PSLC) and their applications. Laboratory experiments on composite systems and fabrication of PDLC and PSLC light shutters.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

MTSC 72643 ELECTRO-OPTICS OF LIQUID CRYSTALS: MODELING AND DEVICE DESIGN 3 Credit Hours

(Slashed with MTSC 62643) Apply knowledge of liquid crystals and optics to the design of liquid crystal electro-optical devices. Emphasis is on modeling of devices and the use of that modeling to optimize device characteristics. Several particular device designs are considered to familiarize students with the state of the art in electro-optical applications of liquid crystals and to prepare them to advance the art in future designs.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 72647 STRUCTURED FLUIDS 3 Credit Hours

(Slashed with MTSC 62647) The basics of fluids having internal structures, such as long range orientational order and or one and two dimensional positional order. Such materials include thermotropic smectic, lamellar lyotropic and columnar liquid crystals, soap films, fluid foams, fluid fibers and Langmuir monolayers.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 72650 COMPUTATIONAL MATERIALS SCIENCE 3 Credit Hours

(Slashed with MTSC 62650) Materials modeling at the classical (i.e. non-quantum) level. Monte Carlo methods; molecular dynamics simulation; mesoscale models; numerical methods; case studies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 72651 NANOBIO TECHNOLOGY 3 Credit Hours

(Slashed with MTSC 62651) Course presents the concepts, principles and the state-of-the-arts of nanotechnologies and their applications in biological and biomedical science and engineering. Focus is on the fundamental physical principles and engineering technologies of device miniaturization and system integration for bioapplications.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 73000 PHYSICS OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 63000) Students learn the basics of physics of soft matter, including polymers, liquid crystals, colloids, reduced dimensionality fluids and active matter. Course provides students a coherent and deep understanding of the most important concepts and scientific results of soft matter, such as nano-, and microscopic structures, mechanical, electrical and optical properties.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 73010 LYOTROPIC LIQUID CRYSTALS 3 Credit Hours

(Slashed with MTSC 63010) Course covers the fundamentals and the chemical aspects of different types of lyotropic liquid crystals (organic, inorganic, composites) leading to a discussion of phase diagrams and a comprehensive discussion of the characterization techniques of lyotropic liquid crystals. Focuses on some key aspects related to the use of lyotropic liquid crystals in pharmacological and medical applications such as drug delivery and the use of lyotropic liquid crystals as templates or 'reactors' for nanoscale synthesis and mesoscale manufacturing.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 73015 CHEMISTRY OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 63015) Course familiarizes students with the basic underlying chemical concepts in soft matter science, focusing on the most important chemical building blocks in soft matter, IUPAC rules for naming them, miscibility rules and micro-segregation of chemically incompatible molecular segments, physical and electronic properties of aromatic compounds, including heterocyclic and fluorinated aromatics, properties of aliphatic and perfluorinated hydrocarbons, unsaturation, structure-property relationships and all levels of chirality (molecular to supramolecular). Other topics focus on specific types of materials explored in soft matter such as polymers, liquid crystals, carbon nanomaterials, metal and semiconductor nanoparticles and light-responsive organic materials, gels, foams and colloids.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 73020 APPLICATIONS OF SOFT MATTER 3 Credit Hours

(Slashed with MTSC 63020) Course covers the applications of soft matter that include electro-optical, sensor and biological applications. Recent developments related to emerging applications are covered.

Prerequisite: MTSC 73000; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MTSC 73025 ACTIVE MATTER 2 Credit Hours

(Slashed with MTSC 63025) The course is designed to teach the science of active matter which embraces a broad range of dynamic out-of-equilibrium systems comprised of interacting units that are capable of converting stored energy or the energy of the environment into systematic motion. Examples include colloids powered by an electric field, swimming bacteria and living liquid crystals. Theoretical models considered are Vicsek model and Toner-Tu model. The course will provide a coherent picture of the dynamic out-of-equilibrium phenomena.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MTSC 73100 EMERGING DISPLAY TECHNOLOGIES 2 Credit Hours

(Slashed with MTSC 63100) This course focuses on the fundamentals and applications of latest display technologies in transmissive, reflective and emissive displays as well as free-space display technologies. This course is aimed for students who wish to learn more, not limited to liquid crystal devices and applications, but also wide ranges of current and future display technologies, and will intergrate among materials science, physics and engineering with display technologies ranging from direct-view, flexible, wearable and free-space displays.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MTSC 74491 SEMINAR: LIQUID CRYSTALS 1 Credit Hour

(Repeatable for credit) (Slashed with MTSC 64491) Discussion of current literature or original research in liquid crystals. Participation by students, faculty and guests.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

MTSC 74495 SPECIAL TOPICS IN CHEMICAL PHYSICS 1-3 Credit Hours

(Repeatable for credit)(Slashed with MTSC 64495) Topic varies per course offering.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MTSC 75006 LIQUID CRYSTAL DEVICE PROTOTYPING 2 Credit Hours

(Slashed with MTSC 65006) Liquid crystal device prototyping; introduction to liquid crystal device manufacturing methods.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1 lecture, 2 lab

Grade Mode: Standard Letter

MTSC 75008 LIQUID CRYSTAL DEVICE CONSTRUCTION 1 Credit Hour

(Slashed with MTSC 65008) Students acquire the knowledge and experience in basic techniques and procedures for the construction of liquid crystal cells. Students are prepared for successive lab courses and the capstone project based on the clean-room techniques, ITO glass handling, film deposition, surface alignment treatment and cell assembly experienced.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

MTSC 75032 SCIENTIFIC COMMUNICATION 1 Credit Hour

(Slashed with MTSC 65032) Course aims to help graduate students in STEM fields improve their skills in scientific writing and presentations. Activities include a mock panel review of scientific proposals. Students produce a final paper that could serve as the introductory chapter of a thesis or dissertation.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

MTSC 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation for which registration in at least two semesters is required, first of which will be semester in which dissertation work is begun, and continuing until the completion of 30 hours.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

MTSC 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: MTSC 80199 and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

MTSC 80498 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral student who has not yet passed candidacy exam. Credit earned may be applied toward degree.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 3-45 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Neuroscience (NEUR)**NEUR 10100 SEMINAR IN NEUROSCIENCE 1 Credit Hour**

Course provides an overview of the neuroscience field, including areas of neuroscience research, foundational principles in neuroscience, current questions and techniques, career possibilities and examples of research being conducted by neuroscience faculty.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

NEUR 30100 NEUROSCIENCE I 3 Credit Hours

(Crosslisted with BSCI 30100) Course covers basic principles in neuroscience, from the cellular to systems levels. Provides students a basic understanding of how the nervous system is organized, electrophysiology properties of neurons, sensory systems and motor pathways.

Prerequisite: BSCI 30140.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

NEUR 30200 NEUROSCIENCE II 3 Credit Hours

(Cross-listed with BSCI 30200) Course builds off of the principles taught in Neuroscience I by providing more depth and breadth to the functioning of the nervous system. Course provides students a more complete understanding of the neuroanatomy, neurophysiology and neural circuitry involved in sensory processing, motor control and higher order cognitive functioning.

Prerequisite: NEUR 30100 or BSCI 30100.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

NEUR 30300 EXPERIMENTAL METHODS IN NEUROSCIENCE 1 Credit Hour

(Cross-listed with BSCI 30300) Accompanying laboratory for NEUR 30200 or BSCI 30200. Course provides a greater depth of understanding into and hand-on experience with the principles discussed in NEUR 30200 or BSCI 30200. Course provides students a full understanding in the major research techniques used in neuroscience. The major topics covered include: electrophysiology, neuroanatomy, learning and memory, the neuromuscular junction and sensory perception. .

Prerequisite: NEUR 30100 or BSCI 30100 with minimum C grade.

Pre/corequisite: NEUR 30200 or BSCI 30200.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

NEUR 30889 BEAUTY AND THE BRAIN: EXPLORING FLORENCE THROUGH THE SENSES (ELR) 3 Credit Hours

(Cross-listed with BSCI 30889) This is an introductory sensory neuroscience course for undergraduate students. By exploring the sensory richness of Florence, Italy, students delve into the biology of their sensory systems. Through a combination of field trips, laboratory exercises, lectures and presentations, students learn how our sensory systems function to change diverse environmental signals into information that can be interpreted by the brain. Site visits are used to highlight specific sensory systems and laboratories/lectures provide the conceptual framework. Together, these experiences lay the foundation for students' understanding of vision, taste, smell, touch and hearing in the unique environment of Florence, Italy.

Prerequisite: Special approval.

Schedule Type: International Experience, Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

NEUR 40192 INTERNSHIP IN NEUROSCIENCE (ELR) 3-12 Credit Hours

Work experience and training in neuroscience under the supervision of appropriate personnel in a government agency, nonprofit organization or business.

Prerequisite: NEUR 30200; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9-36 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

NEUR 40195 SPECIAL TOPICS IN NEUROSCIENCE 1-3 Credit Hours

Topics in neuroscience vary per course offering.

Prerequisite: NEUR 30200.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1-3 lecture, 2-6 lab

Grade Mode: Standard Letter

NEUR 40196 INDIVIDUAL INVESTIGATION IN NEUROSCIENCE 1-3 Credit Hours

(Repeatable for credit) Research study under the guidance of a neuroscience faculty member and under the direction of a Biological Sciences faculty mentor.

Prerequisite: NEUR 30200; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

NEUR 40385 CURRENT TOPICS IN NEUROSCIENCE 3 Credit Hours

(Cross-listed with BSCI 40385)(Slashed with BSCI 50385 and BSCI 70385) This is a discussion- and readings-based course that focuses on cellular and molecular mechanisms underpinning functions of the central nervous system. Topics covered include synaptic plasticity; neuron-glia interactions; gene-environment interactions involved in learning, memory and disease; big data in neuroscience; and more. During this course, students develop knowledge and understanding of communication between brain cells; how gene-environment interactions impact learning and memory, behavior and disease; and modern techniques used in neuroscience research. Students read, summarize and discuss primary research papers in the context of neuroscience-related topics.

Prerequisite: BSCI 30140.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

NEUR 40429 NEURAL CONTROL OF REPRODUCTIVE FUNCTION 2 Credit Hours

(Cross-listed with BSCI 40429) (Slashed with BSCI 50429 and BSCI 70429) Course explores the role of the brain in regulating functions that are essential to ensure successful reproduction. Topics covered include an overview of the endocrine and neuroendocrine systems involved in reproduction, as well as regulation of puberty, fertility, pregnancy and lactation. The course also explores disorders, such as polycystic ovary syndrome, affecting the central regulation of reproduction.

Prerequisite: BSCI 30130 or BSCI 40430 or NEUR 30100.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

NEUR 47387 NEUROPSYCHOPHARMACOLOGY 3 Credit Hours

(Cross-listed with PSYC 47387) Neuropsychopharmacology is the study of how drugs and other chemicals affect brain and behavior. This course introduces students to the behavioral effects of psychoactive therapeutic drugs and neurotoxic chemicals in relation to their neural and molecular mechanisms of action. Covers general principles of neuropsychopharmacology; nervous system structure in relation to behavior and mind, brain and behavioral systems that are affected by different classes of drugs and toxic chemicals; and methods employed in neuropsychopharmacology research.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Department of Africana Studies

Africana Studies (AFS)

AFS 15200 INTRODUCTION TO WEST AFRICAN CULTURES 3 Credit Hours

Students will study the history, culture, geography, ecology, and historical specifics of the region of West Africa from the 9th to the 19th centuries.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 20001 INTRODUCTION TO AFRICANA STUDIES 3 Credit Hours

This course uses an interdisciplinary approach to introduce students to the discipline and field of Africana Studies. Using primary source materials from literature, film and various art forms, students will be exposed to concepts, critical issues, events and major thinkers that have shaped the global Black world. Emphasis will be placed on the relationship between Peoples of African descent, Latin and Indigenous Peoples. Selected course materials represent the ways in which Peoples of African descent have demonstrated resiliency, activism and agency.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 20101 KISWAHILI III 3 Credit Hours

Continuation of Kiswahili II, aimed at developing knowledge competence and recognition of Kiswahili usage in all forms of Kiswahili literature.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 20102 KISWAHILI IV 3 Credit Hours

Continuation of Kiswahili III, aimed at developing knowledge, competence and recognition of Kiswahili usage in all forms of Kiswahili literature.

Prerequisite: AFS 20101.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 20300 BLACK IMAGES 3 Credit Hours

Examines the historical origins and representations of racial images and anti-black perceptions through newspapers, magazines, songs, plays, literature, textbooks, radio, television, films, comic books, etc. and the role of these images in American culture past and present.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 22000 CREATIVE WRITING IN THE BLACK WORLD 3 Credit Hours

Explores the major aesthetic and cultural issues that have historically shaped creative writing in the Black world since the beginning of the African Griot tradition. Students will investigate the African-American tradition in literature as an organic part of the larger Africana world. Students are expected to write, perform, critique and produce original works in the modes and performance styles of the global African world.

Prerequisite: ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 22101 AFRICAN AMERICAN VISUAL ARTISTS 3 Credit Hours

The course is an Afrocentric survey of visual and aural artistry. The course also examines context and perspectives, mediums of expression, form, style, content and patronage of African American artists from 1800.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 22200 INTRODUCTION TO THE AFRICAN ARTS 3 Credit Hours

This course investigates the function of creative forms of artistic expression particular to experiences of the Africana community at home and abroad.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 23001 BLACK EXPERIENCE I: BEGINNINGS TO 1865 (KHUM) 3 Credit Hours

This course examines the African experience prior to and following the arrival of Africans in the New World. It explores the contributions of Africans in the areas of state formation, arts/architectural designs, scientific explorations, religion and other great human achievements. Discussion will also focus on major historical events such as the Trans-Saharan trade, Trans-Atlantic Slave trade, Middle Passage, and Slavery in America. The experiences of people of African descent in North and South America as well as the Caribbean will be examined.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities

AFS 23002 BLACK EXPERIENCE II: 1865 TO PRESENT (KHUM) 3 Credit Hours

This course covers the Black Experience from 1865 to the present, including events, ideas and persons in Africa, North and South America, and the Caribbean. The course will also examine slavery in America, the struggles for freedom, the Civil War, Reconstruction and Jim Crow eras, Black politics, culture, and society. The contributions of African Americans to the American society will also be examined.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities

AFS 23095 SPECIAL TOPICS IN PAN-AFRICAN LITERATURE AND COMMUNICATION SKILLS 1-4 Credit Hours

(Repeatable for a maximum of 6 credit hours) Introduction to a current and specialized topic in Pan-African Literature and/or communication skills.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

AFS 23310 NATIVE AMERICAN STUDIES 3 Credit Hours

Study and analysis of Native American history, sovereignty and civil rights. Ensures an understanding of self-determination in the context of colonization, decolonization and neocolonization, through the use of Native American literature, philosophy, politics and other cultural outlets. Being that we all live in a broader community, students also examine historical and contemporary relationships with the African American community and other ethnic communities in the US.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 24407 INTRODUCTION TO CARIBBEAN STUDIES 3 Credit Hours

This course examines the histories, social and political frameworks, cultural and religious traditions of Caribbean regions from the pre-colonial era to the present. The course focuses in particular on the experience of people of African descent in the Caribbean.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 26010 BLACK LIVES MATTER: THE CONTINUED STRUGGLE FOR BLACK LIBERATION 3 Credit Hours

This course examines the historical, cultural and sociopolitical development of the global #BlackLivesMatter movements. By linking the current movements for Black liberation to past and current resistance movements, this course explores the intersectional relationship between identity development and the anti-blackness of state sanctioned violence through strategies and tactics of various movements and individuals who represent the legacy of the Black Radical Tradition.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 30000 MAY 4, 1970, AND ITS AFTERMATH 3 Credit Hours
(Cross-listed with PACS 30000 and POL 30000) Study of the events of the 1960s in the U.S. leading up to May 4, 1970 when the Ohio National Guard killed and wounded Kent State University students protesting the U.S. war in Vietnam and Cambodia. Topics are considered within their cultural, historical, social and political contexts. The course also examines the aftermath of May 4th, including the controversy surrounding constructing the gym annex on the May 4th site, the legal trials, the role of commemorations and memorials and the politics of remembering May 4, 1970.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 30001 CULTURAL EXPRESSIONS I 3 Credit Hours
Exploration of African creative endeavors and cultures through traditionally integrated forms of music, dance and song. Some emphasis on the study of design, color and fashion merged with family, food and environment, as well as traditional African societies. The class strives to foster in the student, through song and dance and through plastic arts, an aesthetic appreciation of the traditional African society such as the Yoruba people, the Dan, Dogon, Bambura, Mandingo and Senufo and many more.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 30310 BLACK HOLLYWOOD 3 Credit Hours
Examines the complexities of race relations in the film industry and the need for "Hollywood" and Black filmmakers to create films for mainstream audiences with a multitude of themes from the African American experience in America and the Black experience around the world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 30311 HIP HOP: THE SOCIAL, POLITICAL AND ECONOMIC INFLUENCES 3 Credit Hours
Examines the social, political and economic influences of and on Hip-hop and analyzes the historical and current relationships between Hip-hop and mainstream America, including the role that corporate America has played. In-depth history of the culture and major pioneers and contributors.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 32001 AFRICAN-AMERICAN LITERATURE TO 1900 3 Credit Hours
(Cross-listed with ENG 33010) Study of African-American literature from its beginning to 1900, including such writers as Wheatley, J. Hammon, Terry, B. Hammon, Jones, Marrant, Allen, Hall, Walker, Truth, Garnet, Douglass, Delany, Harper, Stewart, Turner, Jacobs, Keckley, Brown, Wilson, Griggs, Chesnutt and Dunbar.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 32002 MODERN AFRICAN-AMERICAN LITERATURE 3 Credit Hours

Study of African-American literature from the early twentieth century to the present. The authors include Toomer, Hughes, Larsen, Wright, Baldwin, Hansberry, Jones, Lorde, Walker, Morrison, Mosley, Youngblood and Carter.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 32050 AFRICAN LITERATURES 3 Credit Hours
(Cross-listed with ENG 33015) Examines works of major 20th-century African, African American and Caribbean writers and intellectuals.

Authors include Niane, Achebe, Emecheta, Prince, Hurston, Hughes, Césaire, Senghor, Soyinka and many others.

Prerequisite: ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 33110 BLACK WOMEN, CULTURE AND SOCIETY: HISTORICAL PERSPECTIVES 3 Credit Hours

This course surveys the experiences of Black women throughout various periods of history, and their roles in shaping the social, economic, political and cultural development of their societies.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 33120 THE BLACK MAN: HISTORICAL PERSPECTIVES 3 Credit Hours

This course will investigate both the historical as well as the cultural evolution of the African man in America. We will consider the Black man's development within the larger context of the African experience in the United States. It will focus primary attention on the cultural, social, economic and political aspects of African community development and the impact of Black men on that development.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 33130 GENDER AND SEXUALITY IN AFRICA AND THE AFRICAN DIASPORA 3 Credit Hours

Using lectures, videos, discussions, readings and application this course explores ways in which gender and sexuality in Africa and the African Diaspora have and can be constructed, performed, articulated and researched. Attention is also paid to the existence of LGBTQ identities within the global black community.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 33171 AFRICAN-AMERICAN COMMUNITIES 3 Credit Hours

This course explores the challenges facing African-American communities through historical and contemporary perspectives. Issues such as geography, black/demography, public administration, health, transportation, socio-economic/finance as well as education, civil rights, crime/justice will be covered. The course will also explore contemporary social movement issues and implications on these communities.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 33310 AFRO-LATINX COMMUNITIES IN THE U.S. 3 Credit Hours

Introduction to the social, cultural, and political experiences of Afro-Latinx communities in the U.S. The communities include Afro-Mexican, Puerto Rican, Afro-Cuban, Dominican, Garifuna, etc.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 34000 INTRODUCTION TO AFRICAN WORLD VIEW 3 Credit Hours

This course will introduce students to the basic features of the Traditional African Worldview. We will identify and examine those concepts that all African peoples hold in common. It will provide a working context within which to discuss fundamental aspects of Traditional African identity and culture. In addition, we will consider the transformation of the African Worldview in the so-called New World.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 37000 ORAL AND WRITTEN DISCOURSES IN AFRICANA STUDIES (WIC) 3 Credit Hours

This course examines foundational text, speech and cultural expressions in the Africana World. Students will develop their writing skills and learn new techniques to improve their oral and written communication.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

AFS 37001 THEORETICAL APPROACHES TO AFRICANA STUDIES 3 Credit Hours

A critical analysis of the diverse approaches to the underlying principles of Africana Studies. This course aims to expose students to various theoretical perspectives and models that scholars use to explore and understand the Africana experience. The course has a multi-disciplinary and inter-disciplinary scope that allows for a thorough investigation of the political, socio-economic and cultural significance of the unity, self-determination and resistance forged by People of African Descent.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 37010 RESEARCH METHODS IN AFRICANA STUDIES (ELR) 3 Credit Hours

This course will expose students to the basic components on interdisciplinary research methods used in Africana Studies. Students will learn about research concepts, paradigms, models and perspectives in the design of African-centered research projects.

Prerequisite: AFS 37000 and AFS 37001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

AFS 37020 THE MODEL AFRICAN UNION (ELR) 3 Credit Hours

Students examine role, structure and performance of the African Union in the search for solutions to key economic, social and political-security issues facing Africa. Students attend the annual meeting of the Model African Union Conference in Washington D.C., which is a simulation of proceedings of the African Union, augmented by briefings at African Embassies. Participants gain an understanding of the various determinants, capabilities and constraints shaping the domestic and foreign policies of African countries.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

AFS 37100 AFRICANA WOMEN'S LITERATURE 3 Credit Hours

(Cross-listed with ENG 33013). This course introduces students to literary works by Africana women. The course will explore concerns and issues impacting Africana women including but not limited to the intersections of psychological, social, historical and political issues of race and gender.

Prerequisite: ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 37150 SECRET AND MAROON SOCIETIES IN THE STRUGGLE AGAINST THE INSTITUTION OF SLAVERY 3 Credit Hours

This course examines secret and maroon societies including but not limited to the Underground Railroad, the Quilombos of Brazil, Black Seminoles of Florida, and other maroon communities in the Africana world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 37200 AFRICAN-AMERICAN WOMEN'S LITERATURE 3 Credit Hours

(Cross-listed with ENG 33014) Introduces students to literary works by African-American women.

Prerequisite: ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 40001 CULTURAL EXPRESSIONS II 3 Credit Hours

This course continues Cultural Expressions I in greater depth and sophistication: Exploration of African creative endeavors and cultures through traditionally integrated forms of music, dance and song. Some emphasis on the study of design, color and fashion merged with family, food and environment, as well as traditional African societies. The class strives to foster in the student, through song and dance and through plastic arts, an esthetic appreciation of the traditional African society such as the Yoruba people, the Dan, Dogon, Bambara, Mandingo, Su Su, Senufu and many more.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 41192 PRACTICUM IN AFRICANA COMMUNITIES (ELR) 1-12 Credit Hours

(Repeatable for credit) This practicum provides students with hands-on experience in community service and engagement. In coordination with a selected faculty member, students will have the opportunity to work in government agencies, public and private schools, non-profit organizations, etc.

Prerequisite: None.

Schedule Type: Practical Experience

Contact Hours: 3-36 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

AFS 43095 SPECIAL TOPICS IN PAN-AFRICAN LITERATURE, ARTS AND CULTURES 3 Credit Hours

(Repeatable for credit) Broadens upper division offerings in holistic study and performance in Pan-African literatures, arts and cultures.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 43100 RACE, CLASS AND FEMINIST THOUGHT 3 Credit Hours

(Slashed with AFS 53100) Explores issues of race, class and gender through the lens of Black women and feminists of color. This course also examines how gender, race, and class intersect in the construction of identity, institutional formations and social movements in the African world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 43200 MALCOLM AND MARTIN 3 Credit Hours

A critical study of the major ideas and doctrines, including religious and theological beliefs, of Malcolm X and Martin L. King and their roles in American history.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 44095 SPECIAL TOPICS IN CONTEMPORARY AFRICA 3 Credit Hours

(Repeatable for a total of 12 credit hours when topic varies) Study of selected topics related to contemporary Africa.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 47095 SPECIAL TOPICS IN THEORETICAL AND APPLIED RESEARCH 3 Credit Hours

(Repeatable for a maximum of 12 credit hours) Selected topics in the intellectual, cultural, political and historical development of Pan-Africanism, its diverse theoretical approaches and multiple applications including the Organization of African Unity.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 47099 SENIOR SEMINAR IN AFRICANA STUDIES (ELR) (WIC) 3 Credit Hours

This upper-division course is designed to provide AFS students the opportunity/framework to critically review and reflect on their academic and experiential learning experiences and other academic undertakings before graduation. In addition to reviewing relevant topical/contemporary issues of interest in the field of Africana Studies or the Pan-African world, students will develop individual research papers on these topical issues for presentation before the departmental faculty, students and the general public.

Prerequisite: AFS 37010.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

AFS 47100 RACE, GENDER AND SOCIAL JUSTICE 3 Credit Hours

(Slashed with AFS 57100) This senior level course introduces students to the interconnected fields of race, gender and social justice in America and the rest of the world. Students will explore the intersectionality of these fields and how they shape our understanding of social justice issues. The course will enhance the knowledge and understanding of students on critical issues of race, gender, sexuality/other categories. Drawing on interdisciplinary approach/perspective, students will study and develop a global understanding of the complex intersectional systems of oppression that shape the lives of people of African descent, including other people of color. Discussions will focus on issues of civic engagement, public policy, policy advocacy, and the practice/methodology of activism.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 47122 SEMINAR IN ACTIVISM AND SOCIAL CHANGE 3 Credit Hours

(Slashed with AFS 57122) This senior level seminar course will provide students the opportunity to gain knowledge and understanding of activism and social change. Discussion will focus on strategies and methods of social change through community activism, policy advocacy, community organizing and development. Students will engage in readings, discussions, and analyses of relevant works on issues of activism, race, gender and social change. In addition to reviewing major theoretical and methodological approaches, students will develop a theory-driven research paper on a topical issue of interest on race, gender, and social justice by the end of the semester.

Prerequisite: None.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 47144 BLACK SOCIAL AND POLITICAL THOUGHT 3 Credit Hours

(Slashed with AFS 57144) This course explores the evolution of Black social and political thought and leadership within the global Black world. Drawing on the concepts of leadership and liberatory practices, the course will discuss the changing trends of Black social and political thought, strategies, ideologies, race, class, gender, conflict, competition and future prospects of Black political mobilization and leadership.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 49093 VARIABLE TITLE WORKSHOP IN PAS 2-6 Credit Hours

(Repeatable for credit)

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory

AFS 49095 SELECTED TOPICS 2,3 Credit Hours

(Repeatable for credit) Scheduled topic announced. Intended to encourage further study in areas not treated adequately in standard courses. Offered irregularly by available or visiting faculty.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 2-3 lecture

Grade Mode: Standard Letter-IP

AFS 49096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable once for credit) Research in areas of interest not available in departmental courses. Approval by faculty member or chairperson necessary prior to registration.

Prerequisite: Junior or senior standing.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

AFS 53100 RACE, CLASS AND FEMINIST THOUGHT 3 Credit Hours

(Slashed with AFS 43100) This graduate level course explores issues of race, class and gender through the lens of Black women and feminists of color. This course also examines how gender, race, and class intersect in the construction of identity, institutional formations and social movements in the African world.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 57100 RACE, GENDER AND SOCIAL JUSTICE 3 Credit Hours

(Slashed with AFS 47100) This graduate level course introduces students to the fields of race, gender and social justice in America and the rest of the world. Students will explore the intersectionality of these fields and how they shape our understanding of critical social justice issues. The course is designed for M.A. and/or PhD students who wish to complement and strengthen their research and pedagogical framework in their degree program, and those who are interested in working towards equity with regard to race, gender, sexuality/ other categories. Drawing on interdisciplinary approach/perspective, students will study and develop a global understanding of the complex intersectional systems of oppression that shape the lives of people of African descent, including other people of color. Discussions will focus on issues of civic engagement, public policy, policy advocacy, and the practice/methodology of activism. The knowledge of students in the interdisciplinary field of Africana Studies will also be broadened after taking this course.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 57122 SEMINAR IN ACTIVISM AND SOCIAL CHANGE 3 Credit Hours

(Slashed with AFS 47122) This graduate seminar course is designed to provide students the opportunity to undertake a critical overview of their graduate minor program in Race, Gender and Social Justice with a focus on strategies and methods of social change through community activism. Discussions will focus on critical issues of policy advocacy, community organizing and development. Students will engage in readings, discussions, and analyses of relevant works on issues of activism, race, gender and social change. In addition to reviewing major theoretical and methodological approaches, students will develop a theory-driven research paper on a topical issue of interest on race, gender, and social justice by the end of the semester.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AFS 57144 BLACK SOCIAL AND POLITICAL THOUGHT 3 Credit Hours

(Slashed with AFS 47144) This graduate level course explores the evolution of Black social and political thought and leadership within the global Black world. Drawing on the concepts of leadership and liberatory practices, the course will discuss the changing trends of Black social and political thought, strategies, ideologies, race, class, gender, conflict, competition and future prospects of Black political mobilization and leadership.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Department of Anthropology

Anthropology (ANTH)

ANTH 18095 SPECIAL TOPICS ANTHROPOLOGY 3 Credit Hours
(Repeatable for credit) Special Topics in Anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 18210 INTRODUCTION TO CULTURAL ANTHROPOLOGY (KSS) 3 Credit Hours

This introductory course in cultural anthropology examines the culture concept, the diverse ways of life found in communities around the world, and attempts by anthropologists and other social scientists to understand the commonalities underlying our diversity. It explores how individual lives are shaped by broader cultural and social forces, how people create meaning, and the nature of power relations. Students will gain insight into the potential of anthropological findings to help resolve contemporary human problems.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

ANTH 18230 INTRODUCTION TO FORENSIC ANTHROPOLOGY 3 Credit Hours

Forensic anthropology is the application of biological anthropology in a medico-legal context. The tools of archaeology and biological anthropology are used to discover, recover and identify human remains. Topics include human osteology, determining the biological profile (sex, age, ancestry and stature), facial reconstruction, establishing a positive I.D., trauma to bone, stages of decomposition, the role of insects in decomposition, and issues of mass graves.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 18420 INTRODUCTION TO ARCHAEOLOGY (KSS) 3 Credit Hours

Archaeology is the study of the human past using material remains. The themes of time change and human diversity will be emphasized as students learn about ancient societies and how they teach us about ourselves. We will survey prehistoric and ancient human existence, from our earliest bipedal ancestors between 5 and 10 million years ago until the beginnings of complex society.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

ANTH 18630 HUMAN EVOLUTION (KBS) 3 Credit Hours

Introduction to basic evolutionary theory with a focus on the emergence and progressive development of the human species during the last five million years. Includes related topics such as primate behavior and human variation.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, TAG Social and Behavioral Sciences, Transfer Module Natural Sciences

ANTH 18631 ISSUES IN HUMAN EVOLUTION (KBS) (KLAB) 1 Credit Hour

Laboratory study of primate and human anatomy; human paleontology; Mendelian, molecular and human genetics; and primate behavior, ecology and conservation.

Pre/corequisite: ANTH 18630.

Schedule Type: Laboratory

Contact Hours: 1 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab

ANTH 28095 SPECIAL TOPICS ANTHROPOLOGY 3 Credit Hours

(Repeatable for credit) Special Topics in Anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 28300 INTRODUCTION TO FORENSIC GENETICS 3 Credit Hours

Forensic genetics is a field in which the properties of proteins and nucleic acids (genes) are utilized to identify the person that produced them; for example, whose DNA is on a gun trigger? This is the first in a two-course series. This course provides a foundation in basic genetic principles and methods relevant to criminal investigation and victim identification. Topics include introduction and history of molecular forensics, crime scene evidence, serology (blood, semen, saliva), blood spatter, chromosome structure, principles of inheritance, linkage and crossing over, microsatellites (STRs), DNA extraction methods, standard PCR, capillary electrophoresis, mitochondrial DNA, sex chromosomes, basic population genetics, and CODIS database.

Prerequisite: ANTH 18230 or ANTH 18630.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 38095 SPECIAL TOPICS IN ANTHROPOLOGY 3 Credit Hours

Special topics in anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: Junior standing or above.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 38096 INDIVIDUAL INVESTIGATION IN ANTHROPOLOGY (ELR) 1-3 Credit Hours

(Repeatable for credit) Readings and/or research supervised by a member of the anthropology staff.

Prerequisite: Permission.

Schedule Type: Individual Investigation

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

ANTH 38440 QUANTITATIVE ANTHROPOLOGY 3 Credit Hours

Introduces the quantitative description of numerical data, provides an understanding of the basis of probability theory and statistical inference and acquaints the student with the role of computers in anthropology.

Prerequisite: ANTH 18420 or ANTH 18630.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 38480 ARCHAEOLOGICAL ANALYSIS (ELR) (WIC) 3 Credit Hours

Methods necessary for the description and laboratory analysis of prehistoric remains. Course will include laboratory exercises as well as class lectures.

Prerequisite: ANTH 18420.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

ANTH 38680 PRIMATE SOCIETIES 3 Credit Hours

This course will be a survey of the behavior of living primates. Topics covered include reproductive and foraging strategies, social structure and primate conservation. Antecedent human behavior will also be considered.

Prerequisite: ANTH 18630.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 38789 FACES: HUMAN HEAD ANATOMY WITH A FORENSIC ART FOCUS (ELR) 3 Credit Hours

Summer Florence Institute course: Renaissance artists became anatomists in order to create more life-like portrayals of the human figure, and Italy was in the forefront of these developments. Our course begins with studying works by these artist/anatomists: Antonio Pollaiuolo, Leonardo da Vinci, Michelangelo, and others, through visits to the Galleria dell'Accademia and Museum of the Bargello and lectures. We will examine drawings, paintings and sculptures of faces by these artists, and gain an appreciation for how well they understood human anatomy. We will also visit La Specola Anatomical Collection (exquisite wax models copied from real corpses during the 17th century) since we are studying anatomy. In the classroom, students will study human skulls, and learn the form and function of the muscles of facial expression and mastication. We will pay close attention to features of the skull that ultimately give each face its unique qualities, and study the areas that indicate age and sex of the individual. Each student will sculpt the facial bones of a skull, using an exact replica cast as a model. In the last part of the course students learn the techniques of two-dimensional forensic facial reconstruction. Using knowledge of head anatomy, and tissue depth data from the literature, each student will prepare detailed sketches (one man, one woman) based on a photograph of his and her skull. We will also learn about changes to the face over the life span, and make sketches of older people based on photographs of them when young.

Prerequisite: None.

Schedule Type: International Experience, Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ANTH 47777 CAREERS IN ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 57777) Practical course designed to familiarize students with the many career options available to anthropologists and relevant pathways to begin these careers. The course also covers strategies for entering and succeeding during graduate school, as well as navigating the modern job market.

Prerequisite: 8 credit hours of Anthropology (ANTH) courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48001 QUALITATIVE RESEARCH METHODS IN ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 58001) This course covers the qualitative research methods employed by anthropologists to collect and analyze data. Students will gain skills in ethnography, research design and analysis, and the ethical responsibilities associated with data collection and storage.

Prerequisite: ANTH 18210.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48010 NORTH AMERICA'S ICE AGE HUNTERS 3 Credit Hours

(Slashed with ANTH 58010) This class is an in-depth study of the Clovis people, their culture, their technology, their ancestors, and their progeny. The Clovis culture represents the first peoples of North America during the Pleistocene (Ice Age), over 13,000 years ago. These first Americans were colonizers to the New World, and tackled a dangerous and unfamiliar landscape.

Prerequisite: ANTH 18420.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48092 FORENSIC ARCHAEOLOGY FIELD SCHOOL (ELR) 3 Credit Hours

(Slashed with ANTH 58092) This course provides students with practical experience in archaeological fieldwork in the context of a mock crime scene. Students will excavate a complex burial feature. Surface survey, excavation and recording techniques, field drawing, and processing of bones and artifacts will be taught.

Prerequisite: ANTH 18230 or ANTH 18630.

Schedule Type: Laboratory, Lecture, Practical Experience

Contact Hours: 1 lecture, 3 lab, 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ANTH 48093 VARIABLE TITLE WORKSHOP IN ANTHROPOLOGY 1-6 Credit Hours

(Repeatable for credit) Classroom discussions and field study activity focused on professional and disciplinary concerns. Specific content varies with workshop group.

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

ANTH 48095 SPECIAL TOPICS IN ANTHROPOLOGY 3 Credit Hours

(Repeatable for credit) (Slashed with ANTH 58095) Offered irregularly when unusual resources and/or opportunities permit. Topic announced when scheduled.

Prerequisite: ANTH 18210 or 18420.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48150 RELIGION: A SEARCH FOR A MEANING 3 Credit Hours

(Slashed with ANTH 58150) This course teaches students the anthropological approaches to the study of religious beliefs and practices, as well as the role of religion in bringing about social change. Topics covered include: ritual, myth, witchcraft, sorcery, shamanism, syncretism, secularism and fundamentalism. Students will appreciate the diversity of ways in which religion is manifested cross-culturally and understand the different roles that religious beliefs play in human life. Students with Junior standing or above may request that the prerequisite be waived.

Prerequisite: ANTH 18210.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48214 POLITICS OF CULTURE (ELR) (WIC) 3 Credit Hours

(Slashed with ANTH 58214) Addresses the way in which culture has been politicized, and looks at such issues as cultural relativism and objectivity in anthropological studies with reference to specific peoples and geographic areas.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

ANTH 48220 CULTURAL ECOLOGY AND SUSTAINABILITY 3 Credit Hours

(Slashed with ANTH 58220) Exploration of the dynamic relationship between socio-cultural systems and physical-biological environment through Anthropology's comparative perspective on the crucial contemporary need to foster a sustainable society.

Prerequisite: ANTH 18210.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48225 ARCHAEOLOGY OF DEATH (ELR) (WIC) 3 Credit Hours

(Slashed with ANTH 58225) Archaeologists study cemeteries to learn how societies treat their dead, as well as work at mass disaster scenes, and clandestine graves. They aid law enforcement in many situations where human remains have been skeletonized. This course will provide students with an understanding of the processes and procedures involved in each.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

ANTH 48242 ARCHAEOLOGICAL CERAMICS 3 Credit Hours

(Slashed with ANTH 58242) This course will provide students with essential archaeological knowledge of ceramic materials via lecture and hands-on learning activities. Pottery will be addressed in a holistic manner, starting with its geochemical origins, through the various ways humans have sourced and manipulated this versatile raw material, as well as standard archaeological methods for study and interpretation. Ceramic materials from cultures all around the world will be discussed in depth to reveal both functional and social significance.

Prerequisite: ANTH 18420.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48245 PSYCHOLOGICAL ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 58245) Overview of psychological anthropology. Includes comparative cross-cultural socialization and personality development; group and national character; relationship of personality to politics, social and occupational roles, and recent explorations of the relationship between culture and cognition. Examines contributions by leading figures, from Freud, Boas, Benedict, and Whorf through modern studies of spatial cognition and navigation.

Prerequisite: ANTH 18210 or PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48250 MEDICAL ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 58250) This course teaches students the central concepts and methods of medical anthropology, treating illness and healing as biocultural, political and experiential phenomena. The course considers both the specificity of local medical cultures and the complex interactions among the environment, human behavior and political and economic policies that shape them. The course will sensitize students to cultural issues in sickness and health care, and provide some critical analytic concepts and tools. Students with JUNIOR standing or above may request that the prerequisite be waived.

Prerequisite: ANTH 18210 or ANTH 18630.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48262 PEOPLES AND CULTURES OF AMAZONIA 3 Credit Hours

(Slashed with ANTH 58262) This course introduces students to the cultural traditions of Lowland South American peoples. Through a variety of ethnographic readings and films students will explore key anthropological themes such as the relationship between 'nature' and 'culture', gender relations, violence, anthropological ethics and the impacts of colonialism and globalization. Topics covered include: cosmology, personhood, ritual practices, sorcery, shamanism, gender and indigenous activism. Students with Junior standing or above may request that the prerequisite be waived.

Prerequisite: ANTH 18210.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48280 BEING HUMAN: SIGNS AND SYMBOLS 3 Credit Hours

An exploration of semiotic anthropology, the study of the production and communication of meaning through signs and symbols in human life, from both a humanistic and a scientific perspective. Special emphasis is on what it means to be human from a spatial as well as an evolutionary perspective as it relates to our sustainability crisis. The topic is crucial to our species, and to life on earth more generally, given the current globalization of modernity and the propagation of its non-sustainable definition of human being.

Prerequisite: Sophomore standing or above.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48295 SPECIAL TOPICS IN CULTURAL ANTHROPOLOGY 3 Credit Hours

Special topics in anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: ANTH 18210.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48300 ADVANCED FORENSIC GENETICS 3 Credit Hours

(Slashed with ANTH 58300) Forensic genetics is a field in which the properties of proteins and nucleic acids (genes) are utilized to identify the person that produced them. This is the second in a two-course series, and it focuses on the analysis and interpretation of molecular forensic data, as used in criminal investigations. Topics include quantitative PCR, capillary electrophoresis and electrophoretic artifacts, NRC and ISFG recommendations, CODIS database, familial searches, low-copy DNA, mixture deduction, forensic statistics, missing persons, paternity tests, mass disaster identifications, quality control, accreditations and validations, courtroom testimony, legal challenges to DNA typing, and new approaches and technologies.

Prerequisite: ANTH 28300.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48330 PRIMATE ENDOCRINOLOGY 3 Credit Hours

(Slashed with ANTH 58330) This course provides a comprehensive overview of primate behavioral endocrinology, with an emphasis on primate adaptation to maximize reproductive fitness. We learn to identify the major taxonomic groups and their behavioral and physiological diversity, and explore how hormones contribute to shape different primate societies. Throughout the course, we explore hormonal influences on sexual behavior, aggression and dominance, stress and energetic balance, social bonding and parental care, as well as field and laboratory techniques to study nonhuman primates in their natural habitat.

Prerequisite: ANTH 18630.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48440 ARCHAEOLOGY OF ANCIENT OHIO 3 Credit Hours

(Slashed with ANTH 58440) Cultural evolution and human-environmental relationships in the ancient Ohio region documenting an 11,000 year period from initial occupation to the beginning of European written history.

Prerequisite: ANTH 18420.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48450 ANCIENT CIVILIZATIONS 3 Credit Hours

(Slashed with ANTH 58450) This course will explore the mechanisms involved in the development of early complex societies around the globe. Students will be introduced to cross-cultural comparative analysis to explore theories regarding the rise of the state in various ecological environments, as well as other causal explanations and organizational parameters associated with ancient state formation and maintenance.

Prerequisite: ANTH 18420.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48492 ARCHAEOLOGICAL FIELD METHODS (ELR) 3 Credit Hours

(Repeatable for credit) (Slashed with ANTH 58492) Field and laboratory techniques in archaeological research.

Prerequisite: Special approval.

Schedule Type: Lecture, Practical Experience

Contact Hours: 1.66 lecture, 4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ANTH 48495 SPECIAL TOPICS IN ARCHAEOLOGY 3 Credit Hours

Special topics in anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: ANTH 18420.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48550 FORENSIC SCIENCE IN THE COURTROOM 3 Credit Hours

(Slashed with ANTH 58550) This course will provide Students with an understanding of the types of biological forensic data utilized in court, and the strengths and weaknesses of these data. Though multiple types of analyses will be discussed, emphasis will be placed on DNA (STR) data, as it is the predominant type of biological evidence used today. The course will also cover the steps required to determine whether a new type of analysis is admissible at trial. Basic courtroom procedures, biases in data interpretation and presentation, case studies, and moot courts will be included.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48623 HUMAN VARIATION 3 Credit Hours

(Slashed with ANTH 58623) A detailed anthropological examination of the causes and extent of modern human variability.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48695 SPECIAL TOPICS IN BIOLOGICAL ANTHROPOLOGY 3 Credit Hours

Special topics in anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: ANTH 18630.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48810 HUMAN PALEONTOLOGY 3 Credit Hours

(Slashed with ANTH 58810) Study of primate fossils of the Miocene and Pliocene to include the origins of humans and their earliest ancestors.

Prerequisite: ANTH 18630.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48820 HUMAN MUSCULO-SKELETAL SYSTEM 3 Credit Hours

(Slashed with ANTH 58820) A largely hands-on course introducing the study of human anatomy for students interested in biological anthropology and archaeology. Topics include skeletal and functional anatomy biomechanics and estimation of age and sex from isolated bones.

Prerequisite: Junior standing or above.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48835 PRIMATE ECOLOGY AND CONSERVATION 3 Credit Hours

(Slashed with ANTH 58835) Study of the geographic distribution and evolutionary ecology of prosimians, monkeys and apes and human and climatic effects on their long-term survival.

Prerequisite: ANTH 18630 or ANTH 38680 or BSCI 10120.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48850 NATURAL SELECTION ACCORDING TO DARWIN 3 Credit Hours

(Slashed with ANTH 58850) Darwin's Origin of Species transformed our understanding of the natural world. Although he was not aware of the biological constituents of inheritance (i.e. genetics and the modern synthesis), his three ingredients for a system of descent with modification – variation, inheritance, and sorting – were wildly influential. This course will not only explore how Darwin understood his monumental theory, but also show that Darwin's original proposal explains both biological and cultural evolution. Students will gain an understanding of how Darwin's theory provided a foundation for modern anthropological thought and continues to inform anthropological queries.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 48889 INTERNATIONAL EXPERIENCE (ELR) 1-4 Credit Hours

(Slashed with ANTH 58889)(Repeatable for credit) Faculty-led study abroad experiences.

Prerequisite: None.

Schedule Type: International Experience

Contact Hours: 3-12 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ANTH 57777 CAREERS IN ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 47777) Practical course designed to familiarize students with the many career options available to anthropologists and relevant pathways to begin these careers. The course also covers strategies for entering and succeeding during graduate school, as well as navigating the modern job market.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58001 QUALITATIVE RESEARCH METHODS IN ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 48001) This course covers the qualitative research methods employed by anthropologists to collect and analyze data. Students will gain skills in ethnography, research design and analysis, and the ethical responsibilities associated with data collection and storage.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58010 NORTH AMERICA'S ICE AGE HUNTERS 3 Credit Hours
(Slashed with ANTH 48010) This class is an in-depth study of the Clovis people, their culture, their technology, their ancestors, and their progeny. The Clovis culture represents the first peoples of North America during the Pleistocene (Ice Age), over 13,000 years ago. These first Americans were colonizers to the New World, and tackled a dangerous and unfamiliar landscape.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58092 FORENSIC ARCHAEOLOGY FIELD SCHOOL 3 Credit Hours

(Slashed with ANTH 48092) This course provides students with practical experience in archaeological fieldwork in the context of a mock crime scene. Students will excavate a complex burial feature. Surface survey, excavation and recording techniques, field drawing, and processing of bones and artifacts will be taught.

Prerequisite: Graduate Standing.

Schedule Type: Laboratory, Lecture, Practical Experience

Contact Hours: 1 lecture, 3 lab, 3 other

Grade Mode: Standard Letter

ANTH 58095 SPECIAL TOPICS IN ANTHROPOLOGY 3 Credit Hours

(Repeatable for credit) (Slashed with ANTH 48095) Offered irregularly when unusual resources and/or opportunities permit.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58150 RELIGION: A SEARCH FOR MEANING 3 Credit Hours

(Slashed with ANTH 48150) This course teaches students anthropological approaches to the study of religious beliefs and practices, as well as the role of religion in bringing about social change. Topics covered include: ritual, myth, witchcraft, sorcery, shamanism, syncretism, secularism and fundamentalism. Students will appreciate the diversity of ways in which religion is manifested cross-culturally and understand the different roles that religious beliefs play in human life.

Prerequisite: Graduate Standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58214 POLITICS OF CULTURE 3 Credit Hours

(Slashed with ANTH 48214) This course will address the way in which culture has been politicized. It will look at issues such as cultural relativism and objectivity in anthropological studies with reference to specific peoples and geographic areas.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58220 CULTURAL ECOLOGY AND SUSTAINABILITY 3 Credit Hours

(Slashed with ANTH 48220) Exploration of the dynamic relationship between socio-cultural systems and the physical-biological environment through Anthropology's comparative perspective on the crucial contemporary need to foster a sustainable society.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58225 ARCHAEOLOGY OF DEATH 3 Credit Hours

(Slashed with ANTH 48225) Archaeologists study cemeteries to learn how societies treat their dead, as well as work at mass disaster scenes, and clandestine graves. They aid law enforcement in many situations where human remains have been skeletonized. This course will provide students with an understanding of the processes and procedures involved in each.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58242 ARCHAEOLOGICAL CERAMICS 3 Credit Hours

(Slashed with ANTH 48242) This course will provide students with essential archaeological knowledge of ceramic materials via lectures and hands-on learning activities. Pottery will be addressed in a holistic manner, starting with its geochemical origins, through the various ways humans have sourced and manipulated this versatile raw material, as well as standard archaeological methods for study and interpretation. Ceramic materials from cultures all around the world will be discussed in depth to reveal both functional and social significance.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58245 PSYCHOLOGICAL ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 48245) Overview of psychological anthropology. Includes comparative cross-cultural socialization and personality development; group and national character; relationship of personality to politics, social and occupational roles, and recent explorations of the relationship between culture and cognition. Examines contributions by leading figures, from Freud, Boas, Benedict, and Whorf through modern studies of spatial cognition and navigation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58250 MEDICAL ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 48250) This course teaches students the central concepts and methods of medical anthropology, treating illness and healing as biocultural, political and experiential phenomena. The course considers both the specificity of local medical cultures and the complex interactions among the environment, human behavior and political and economic policies that shape them. The course will sensitize students to cultural issues in sickness and health care, and provide some critical analytic concepts and tools.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58262 PEOPLES AND CULTURES OF AMAZONIA 3 Credit Hours

(Slashed with ANTH 48262) This course introduces students to the cultural traditions of Lowland South American peoples. Through a variety of ethnographic readings and films students will explore key anthropological themes such as the relationship between 'nature' and 'culture', gender relations, violence, anthropological ethics and the impacts of colonialism and globalization. Topics covered include: cosmology, personhood, ritual practices, sorcery, shamanism, gender and indigenous activism.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58295 SPECIAL TOPICS IN CULTURAL ANTHROPOLOGY 3 Credit Hours

Special topics in anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58300 ADVANCED FORENSIC GENETICS 3 Credit Hours

(Slashed with ANTH 48300) Forensic genetics is a field in which the properties of proteins and nucleic acids (genes) are utilized to identify the person that produced them. This is the second in a two-course series, and it focuses on the analysis and interpretation of molecular forensic data, as used in criminal investigations. Topics include quantitative PCR, capillary electrophoresis and electrophoretic artifacts, NRC and ISFG recommendations, CODIS database, familial searches, low-copy DNA, mixture deduction, forensic statistics, missing persons, paternity tests, mass disaster identifications, quality control, accreditations and validations, courtroom testimony, legal challenges to DNA typing, and new approaches and technologies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58330 PRIMATE ENDOCRINOLOGY 3 Credit Hours

(Slashed with ANTH 48330) This course provides a comprehensive overview of primate behavioral endocrinology, with an emphasis on primate adaptation to maximize reproductive fitness. We learn to identify the major taxonomic groups and their behavioral and physiological diversity, and explore how hormones contribute to shape different primate societies. Throughout the course, we explore hormonal influences on sexual behavior, aggression and dominance, stress and energetic balance, social bonding and parental care, as well as field and laboratory techniques to study nonhuman primates in their natural habitat.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58440 ARCHAEOLOGY OF ANCIENT OHIO 3 Credit Hours

(Slashed with ANTH 48440) Cultural evolution and human-environmental relationships in the ancient Ohio region documenting an 11,000 year period from initial occupation to the beginning of European written history.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58450 ANCIENT CIVILIZATIONS 3 Credit Hours

(Slashed with ANTH 48450) This course will explore the mechanisms involved in the development of early complex societies around the globe. Students will be introduced to cross-cultural comparative analysis to explore theories regarding the rise of the state in various ecological environments, as well as other causal explanations and organizational parameters associated with ancient state formation and maintenance.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58492 ARCHAEOLOGICAL FIELD METHODS 3 Credit Hours

(Repeatable for credit) (Slashed with ANTH 48492) Field and laboratory techniques in archaeological research.

Prerequisite: Graduate standing.

Schedule Type: Lecture, Practical Experience

Contact Hours: 1.66 lecture, 4 other

Grade Mode: Standard Letter

ANTH 58495 SPECIAL TOPICS IN ARCHAEOLOGY 3 Credit Hours

Special topics in anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58550 FORENSIC SCIENCE IN THE COURTROOM 3 Credit Hours

(Slashed with ANTH 48550) This course will provide students with an understanding of the types of biological forensic data utilized in court, and the strengths and weaknesses of these data. Though multiple types of analyses will be discussed, emphasis will be placed on DNA (STR) data, as it is the predominant type of biological evidence used today. The course will also cover the steps required to determine whether a new type of analysis is admissible at trial. Basic courtroom procedures, biases in data interpretation and presentation, case studies, and moot courts will be included.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58623 HUMAN VARIATION 3 Credit Hours

(Slashed with ANTH 48623) A detailed anthropological examination of the causes and extent of modern human variability.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58695 SPECIAL TOPICS IN BIOLOGICAL ANTHROPOLOGY 3 Credit Hours

Special topics in anthropology offered irregularly when unusual resources or opportunities exist. Topic announced when scheduled.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58810 HUMAN PALEONTOLOGY 3 Credit Hours

(Slashed with ANTH 48810) Study of primate fossils of the Miocene and Pliocene to include the origins of humans and their earliest ancestors.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58820 HUMAN MUSCULO-SKELETAL SYSTEM 3 Credit Hours

(Slashed with ANTH 48820) A largely hands-on course introducing the study of human anatomy for students interested in biological anthropology and archaeology. Topics include skeletal and functional anatomy, biomechanics, and estimation of age and sex from isolated bones.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58835 PRIMATE ECOLOGY AND CONSERVATION 3 Credit Hours

(Slashed with ANTH 48835) Study of the geographic distribution and evolutionary ecology of prosimians, monkeys and apes and human and climatic effects on their long-term survival.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58850 NATURAL SELECTION ACCORDING TO DARWIN 3 Credit Hours

(Slashed with ANTH 48850) Darwin's Origin of Species transformed our understanding of the natural world. Although he was not aware of the biological constituents of inheritance (i.e. genetics and the modern synthesis), his three ingredients for a system of descent with modification – variation, inheritance, and sorting – were wildly influential. This course will not only explore how Darwin understood his monumental theory, but also show that Darwin's original proposal explains both biological and cultural evolution. Students will gain an understanding of how Darwin's theory provided a foundation for modern anthropological thought and continues to inform anthropological queries.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 58889 INTERNATIONAL EXPERIENCE 1-4 Credit Hours

(Slashed with ANTH 48889) Faculty-led study abroad experiences.

Prerequisite: Graduate standing.

Schedule Type: Field Experience, International Experience

Contact Hours: 3-12 other

Grade Mode: Standard Letter

ANTH 68095 SPECIAL TOPICS IN ANTHROPOLOGY 3 Credit Hours
(Repeatable for credit) Offered irregularly when unusual resources and/or opportunities permit.

Prerequisite: 6 graduate hours toward MA in Anthropology; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 68096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Readings and/or research supervised by member of graduate faculty. Petition form available in the anthropology department office.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ANTH 68098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation. Repeated registration permitted. Petition form available in the anthropology department office.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ANTH 68199 THESIS I 2-6 Credit Hours

Thesis student must register for total of 6 hours, 2 to 6 hours in a single semester, or distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ANTH 68230 PROBLEMS IN CULTURAL ANTHROPOLOGY 3 Credit Hours

Basic graduate course in cultural anthropology required of all M.A. candidates. Course deals with major topics within this subdiscipline of anthropology.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 68299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: ANTH 68199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ANTH 68430 PROBLEMS IN WORLD PREHISTORY 3 Credit Hours

Basic graduate course in prehistoric archaeology required of all M.A. candidates.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 68630 PRINCIPLES OF BIOLOGICAL ANTHROPOLOGY 3 Credit Hours

(Cross-listed with BMS 78630) A graduate-level introduction to the field of biological anthropology. Topics include genetics, human variation, fossil and modern primates, early man.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ANTH 68637 BIOANTHROPOLOGICAL DATA ANALYSIS I 5 Credit Hours

(Cross-listed with BMS 78637) Examination of methods of univariate and bivariate experimental design. This survey emphasizes tests of hypothesis and estimation techniques with both classical and nonparametric procedures.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

ANTH 68638 BIOANTHROPOLOGICAL DATA ANALYSIS II 3 Credit Hours

(Cross-listed with BMS 78638) This survey of multivariate analysis in anthropology includes one-sample data exploration, multiple sample problems and regression methods. It also includes computer application. Graduate standing.

Prerequisite: ANTH 68637 (same course as BMS 78638).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Department of Biological Sciences

Biological Sciences (BSCI)

BSCI 10001 HUMAN BIOLOGY (KBS) 3 Credit Hours

Study of the scientific method and life's properties, emphasizing human biology. Topics include energy, genetics, reproduction, development disease, nutrition and physical fitness in humans. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

BSCI 10002 LIFE ON PLANET EARTH (KBS) 3 Credit Hours

Explores the fascinating breadth of life on Earth including the unique ecology and survival strategies of animals, plants and microbes in their natural habitats. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

BSCI 10003 LABORATORY EXPERIENCE IN BIOLOGY (KBS) (KLAB) 1 Credit Hour

Introductory college-level laboratory in biology for non-majors. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Pre/corequisite: BSCI 10001 or BSCI 10002.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, Transfer Module Natural Sciences, TAG Natural Science Lab

BSCI 10005 SMALL ANIMAL ANATOMY AND PHYSIOLOGY FOR VETERINARY TECHNICIANS 4 Credit Hours

Identification of anatomy and basic physiological functions of domestic small animals: skeletal, muscles, integumentary, special sense organs, respiratory, digestive, urinary, reproductive, endocrine, nerves, circulatory and immune. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: None.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 10110 BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB) 4 Credit Hours

This introductory course examines the biodiversity of life from its origins to present day, including the evolution, ecology, behavior, form, function and reproduction of major groups of organisms. Students must earn a final grade of at least C- in order to meet prerequisites for selected upper-division BSCI courses.

Prerequisite: None.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science

BSCI 10120 BIOLOGICAL FOUNDATIONS (ELR) (KBS) (KLAB) 4 Credit Hours

This introductory course examines the organization of life from subcellular biochemistry and molecular biology to genetics, bioenergetics and system homeostasis. Students must earn a final grade of at least C- to meet prerequisites for selected upper-division biological sciences (BSCI) courses.

Prerequisite: None.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science

BSCI 10195 SPECIAL TOPICS IN BIOLOGY 1-3 Credit Hours

(Repeatable for credit) Selected subjects and/or themes in biology.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

BSCI 11010 FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) 3 Credit Hours

Anatomy and physiology to include organization of the human body, cells, tissues, organs and systems; integumentary, skeletal, muscular and respiratory systems; and overviews of the nervous and circulatory system. This course is taught on Kent State's regional campuses for associate degree programs. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: Special approval.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab

BSCI 11020 FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB) 3 Credit Hours

Anatomy and physiology of the circulatory, digestive, urinary, nervous, endocrine and reproductive systems. This course is taught on Kent State's regional campuses for associate degree programs. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: BSCI 11010; and special approval.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab

BSCI 16001 HORTICULTURAL BOTANY 3 Credit Hours

Provides students with an understanding of the basic anatomy and physiology and growth characteristics of plants. Offered only at the Geauga and Salem campuses. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: None.

Schedule Type: Laboratory, Lecture

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 20019 BIOLOGICAL STRUCTURE AND FUNCTION 4 Credit Hours

Basic design of human systems emphasizing the physiochemical and cellular bases of organ-system structure, function and development. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BSCI 20021 BASIC MICROBIOLOGY 3 Credit Hours

Principles of microorganisms having a direct relationship on the health and well-being of humans. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: ATTR 25057 or BSCI 10005 or BSCI 11010 or BSCI 20019 or BSCI 21010 or EXSC 25057; and CHEM 10050 or CHEM 10055 or CHEM 10058 or CHEM 10060 or CHEM 11060 or NRST 10014.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 20022 BASIC MICROBIOLOGY LABORATORY 1 Credit Hour

Laboratory experience in microbiology. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Corequisite: BSCI 20021.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

BSCI 20195 SPECIAL TOPICS IN BIOLOGY 1-3 Credit Hours

(Repeatable for credit) Selected subjects and/or themes in Biology.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

BSCI 20196 INTRODUCTION TO INDIVIDUAL INVESTIGATION 1-2 Credit Hours

(Repeatable for credit) Introduction to research in the biological sciences under the direction of a BSCI faculty mentor.

Prerequisite: Minimum C grade in 8 hours of BSCI courses; and departmental and faculty mentor approvals required.

Schedule Type: Individual Investigation

Contact Hours: 1-2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 21010 ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) 4 Credit Hours

Anatomy, physiological chemistry, cytology, tissues and homeostatic mechanisms of the integumentary, skeletal, nervous, muscular and sensory systems. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: None.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science

BSCI 21020 ANATOMY AND PHYSIOLOGY II 4 Credit Hours

Anatomy and physiological processes as related to the following organ systems: endocrine, circulatory, respiratory, digestive, urinary and reproductive. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: BSCI 21010.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: TAG Science

BSCI 26002 ECOLOGICAL PRINCIPLES OF PEST MANAGEMENT 3 Credit Hours

Basic principles of integrated pest management, pesticide application, pest identification and environmental effects. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: BSCI 16001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 26003 PLANT IDENTIFICATION AND SELECTION I 3 Credit Hours

Identification and selection of horticulturally important plant species. Emphasis on woody species, shrubs and trees. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: BSCI 16001 and HORT 16003.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 26004 PLANT IDENTIFICATION AND SELECTION II 3 Credit Hours

Identification and selection of horticulturally important plant species. Emphasis on herbaceous species, ground covers and vines. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: BSCI 16001 and HORT 16003.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30050 HUMAN GENETICS 3 Credit Hours

Modern concepts of genetics applicable to the human including examination of genetically related diseases and their societal implications. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: Minimum 8 credit hours of Biology (BSCI) courses; and 3 credit hours of Chemistry (CHEM) courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30100 NEUROSCIENCE I 3 Credit Hours

(Cross-listed with NEUR 30100) Neuroscience I will cover basic principles in neuroscience from the cellular to systems levels. After completion of the course, students will have a basic understanding of how the nervous system is organized, electrophysiology properties of neurons, sensory systems, and motor pathways.

Prerequisite: BSCI 30140.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30105 CAREER PATHWAYS IN BIOLOGY 1 Credit Hour

Orients students toward various career pathways in the biological sciences.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BSCI 30130 HUMAN PHYSIOLOGY 3 Credit Hours

Integrating mechanisms, pharmacological and pathological considerations for selected organ systems.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade; and 4 credit hours of Chemistry (CHEM) courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30140 CELL BIOLOGY 4 Credit Hours

Investigation of the cell as the fundamental unit of life with an emphasis on the relationship between cellular structure and function.

Prerequisite: Minimum C- grade in the following courses: BSCI 10120; and CHEM 10058 or CHEM 10060 or CHEM 11060; and CHEM 10062.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30156 ELEMENTS OF GENETICS 3 Credit Hours

Principles of organic mechanisms for expression and transmission of traits as studied in molecules, cells, organisms and populations.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and 10120; and MATH 10675 or MATH 10775 or MATH 11010 or MATH 11022 or MATH 12002 or MATH 12021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Science

BSCI 30157 GENETICS LABORATORY 1 Credit Hour

Consists of hands-on experiments with modern computational and molecular biology experimental approaches.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade.

Pre/corequisite: BSCI 30156.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

BSCI 30158 READINGS IN GENETICS 1 Credit Hour

This course emphasizes principles covered in elements of genetics.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120.

Corequisite: BSCI 30156.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BSCI 30171 GENERAL MICROBIOLOGY 4 Credit Hours

Fundamental principles of microbiology and organisms including their structure, physiology, genetics, pathogenicity, classification, mechanisms of cultivation and control.

Prerequisite: Minimum C- grade in the following courses: BSCI 10110 and BSCI 30140; and CHEM 10058 or CHEM 10060 or CHEM 11060; and CHEM 10059 or CHEM 10061; and CHEM 10062 and CHEM 10063.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30189 SCIENTIFIC INQUIRY AND OBSERVATION OF THE NATURAL WORLD (ELR) 3 Credit Hours

This course offers the overview of scientific inquiry and methods used in biological and biomedical sciences, using the wealth of biological resources available in Florence. Students actively explore these resources through field trips to biology-related lab sites, visits to science museums and walking tours of relevant sites.

Prerequisite: Special approval.

Schedule Type: International Experience, Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 30200 NEUROSCIENCE II 3 Credit Hours

(Cross-listed with NEUR 30200) The course builds off of the principles taught in Neuroscience I by providing more depth and breadth to the functioning of the nervous system. The course provides students a more complete understanding of the neuroanatomy, neurophysiology and neural circuitry involved in sensory processing, motor control, and higher-order cognitive functioning.

Prerequisite: NEUR 30100 or BSCI 30100.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30267 PLANT PHYSIOLOGY 4 Credit Hours

Introduction to biochemical processes in plants and plant cells and how plants grow and maintain their bodies through dynamic interactions with the environment.

Prerequisite: Minimum C- grade in the following courses: BSCI 10110 or BSCI 10120; and CHEM 10058 or CHEM 10060 or CHEM 11060; and CHEM 10062.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30270 GENERAL PLANT BIOLOGY 3 Credit Hours

Covers all topics of modern plant biology, including molecular and cellular biology, physiology, anatomy, development, ecology, evolution and diversity.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30271 GENERAL PLANT BIOLOGY LABORATORY 1 Credit Hour

Laboratory and greenhouse exercises in general plant biology.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120.

Corequisite: BSCI 30270.

Schedule Type: Laboratory

Contact Hours: 1 lab

Grade Mode: Standard Letter

BSCI 30274 FORESTRY 3 Credit Hours

Management of the forest resource within appropriate environmental constraints for sustained use relative to watershed protection, lumber production, recreation and wildlife.

Prerequisite: Minimum C- grade in BSCI 10110.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30277 ECONOMIC BOTANY 3 Credit Hours

Economic botany is the scientific study of plants that are important to humans. It considers how plants are used and how plants have shaped up past and modern cultural development.

Prerequisite: Minimum C- grades in BSCI 10110.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30278 LOCAL FLORA - FALL (ELR) 3 Credit Hours

Identification and field study of local plants: native, naturalized and cultivated, focused on summer and fall flora.

Prerequisite: BSCI 10110 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 30279 LOCAL FLORA - SPRING (ELR) 3 Credit Hours

Identification and field study of local plants: native, naturalized and cultivated, focused on winter and spring flora.

Prerequisite: BSCI 10110 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 30300 EXPERIMENTAL METHODS IN NEUROSCIENCE 1 Credit Hour

(Cross-listed with NEUR 30300) Accompanying laboratory course to NEUR 30200 or BSCI 30200. Course provides a greater depth of understanding into and hand-on experience with the principles discussed in NEUR 30200 or BSCI 30200. Course provides students a full understanding in the major research techniques used in neuroscience. The major topics covered include: electrophysiology, neuroanatomy, learning and memory, the neuromuscular junction and sensory perception.

Prerequisite: Minimum C grade in NEUR 30100 or BSCI 30100.

Pre/corequisite: NEUR 30200 or BSCI 30200.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

BSCI 30360 GENERAL ECOLOGY 4 Credit Hours

Principles of ecology based on field studies of local plant and animal communities.

Prerequisite: BSCI 10110 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30361 BIOGEOGRAPHY 3 Credit Hours

Geographical distribution of biotic communities with special reference to North America and their environmental control.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30362 INTRODUCTION TO BIOLOGY OF THE TROPICS 3 Credit Hours

Biology and conservation of tropical ecosystems and organisms.

Prerequisite: Minimum C- grade in BSCI 10110; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30370 CLIMATE CHANGE BIOLOGY 3 Credit Hours

This course focuses on the biological impacts of climate change. It includes background on the issue of the biological consequences of climate change, as well as the history of research, current impacts and projected changes discussed in the Inter-Governmental Panel on Climate Change report, and the controversies of climate-change skeptics. It also includes the biogeochemistry of climate change effects on biology, climate change, and biological interactions, vector-borne infectious diseases, rates of evolution, and Great Lakes biology.

Prerequisite: Minimum C- grade in BSCI 10110; or ENVS 22070.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 30517 HUMAN ANATOMY 4 Credit Hours

An intensive investigation of the anatomy and development of the human body.

Prerequisite: Senior standing; and special approval.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30518 VERTEBRATE ANATOMY 4 Credit Hours

Concepts and methods of functional morphology. Comparative study of vertebrate organs and systems: skeletal, muscular, digestive, respiratory, circulatory, urogenital, nervous and endocrine.

Prerequisite: BSCI 10110 or BSCI 10120 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30560 INVERTEBRATE ZOOLOGY 4 Credit Hours

Survey of the animal kingdom emphasizing evolutionary developments.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30580 ENTOMOLOGY 4 Credit Hours

Classification, biology and ecology of the principal groups of insects.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade; and 10 credit hours of Biological Sciences (BIOL) courses.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30582 ORNITHOLOGY 4 Credit Hours

Field study of the natural history of local birds.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 30789 FEASTS AND PLAGUES: THE SCIENCE OF ITALIAN FOOD, WINE AND DISEASE - INTERNATIONAL EXPERIENCE (ELR) 3 Credit Hours

This course explores the microbial mechanisms responsible for plagues such as the Black Death as well as for their positive roles in food and wine production. These costs and benefits are explored in Florence, Italy, since each is ingrained in the city's history, culture, art and biology. Course activities include food and wine tastings and field trips to historical sites and museums in Florence and Siena. This course is designed to appeal to students with a wide array of interests in human health and society. Students analyze genomes of microbes responsible for human disease; discuss ecological and biological factors associated with disease transmission; construct cemetery life tables; discuss the impacts of disease on Italian art, architecture and culture; master knowledge of the fermentation process; and compare and contrast the microbiomes and environments of vineyards in Tuscany vs. California.

Prerequisite: None.

Schedule Type: International Experience, Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 30889 BEAUTY AND THE BRAIN: EXPLORING FLORENCE THROUGH THE SENSES (ELR) 3 Credit Hours

(Cross-listed with NEUR 30889) This is an introductory sensory neuroscience course for undergraduate students. By exploring the sensory richness of Florence, Italy, students delve into the biology of their sensory systems. Through a combination of field trips, laboratory exercises, lectures and presentations, students learn how our sensory systems function to change diverse environmental signals into information that can be interpreted by the brain. Site visits are used to highlight specific sensory systems and laboratories/lectures provide the conceptual framework. Together, these experiences lay the foundation for students' understanding of vision, taste, smell, touch and hearing in the unique environment of Florence, Italy.

Prerequisite: Special approval.

Schedule Type: International Experience, Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40020 BIOLOGY OF AGING 3 Credit Hours

(Slashed with BSCI 50020) Course covers theories of aging and the normal aging process, dysfunction, and diseases of the elderly categorized by body systems and how nutrition and exercise can offset those changes. This course may not be used to fulfill major or minor requirements in the following programs: B.A. Biology, B.S. Biology, B.S. Biotechnology, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, B.S. Plant Biology, B.S. Zoology and the Biological Sciences minor.

Prerequisite: (ATTR 25057 and ATTR 25058) or BSCI 10001 or (BSCI 11010 and BSCI 11020) or BSCI 20019 or (BSCI 21010 and BSCI 21020) or (EXSC 25057 and EXSC 25058).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40141 EXPERIMENTAL DESIGN AND ANALYSIS IN MOLECULAR BIOLOGY 3 Credit Hours

(Slashed with BSCI 50141 and BSCI 70141) This course explores experimental design and analysis of biological data using tools of molecular biology. Students will study modern and classic techniques and learn the pros and cons of each technique as well as alternative approaches in the context of experiments. The course will consist of a combination of lectures, student presentations and class discussions based on recent primary literature, with particular focus on cell death and disease, including cancer.

Prerequisite: BSCI 30156 and BSCI 30140.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40142 BIOENERGETICS 3 Credit Hours

(Slashed with BSCI 50142 and BSCI 70142) Lecture and discussion of respiration and photosynthesis, their origin, development and control in living systems. Concepts are introduced from fundamental principles. Lecture three hours weekly.

Prerequisite: BSCI 30140 and CHEM 20481 or 30481.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40143 EUKARYOTIC CELL BIOLOGY 3 Credit Hours

(Slashed with BSCI 50143 and BSCI 70143) Current survey of the structure and function of eukaryotic cells, including recent advances in research technology.

Prerequisite: BSCI 30140; and BSCI 30156 or CHEM 20481 or CHEM 30481.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40146 DEVELOPMENTAL BIOLOGY 3 Credit Hours

(Slashed with BSCI 50146 and BSCI 70146) Fundamental concepts and paradigms of development as exemplified by major model organisms. Examines our modern understanding of the molecular, cellular and genetic basis of developmental biology.

Prerequisite: BSCI 30156 with a minimum C grade; and 6 additional credit hours of Biological Sciences (BIOL) courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40147 DEVELOPMENTAL NEUROBIOLOGY 3 Credit Hours

(Slashed with BSCI 50147 and BSCI 70147) Covers fundamental principles of developmental neurobiology, including molecular and cellular processes involved in the formation of the vertebrate central nervous system.

Prerequisite: BSCI 30140; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40148 PRINCIPLES OF INFECTIOUS DISEASE 3 Credit Hours

(Slashed with BSCI 50148 and BSCI 70148) Basic principles of infectious disease with emphasis on major human pathogens, including protozoa, bacteria and viruses. Topics include infection establishment, spread within the host, pathology, immunity and host behavior.

Prerequisite: BSCI 30171 and CHEM 10061 and CHEM 10062 and CHEM 10063; and CHEM 10060 or CHEM 11060.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40150 MOLECULAR MECHANISMS OF DISEASE: CANCER 3 Credit Hours

(Slashed with BSCI 50150 and BSCI 70150) Explores the current understanding of molecular and cellular mechanisms of disease processes, including new technologies and modern strategies at the forefront of future biomedical research. Emphasis on a review of primary literature.

Prerequisite: BSCI 30140 and BSCI 30156; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40151 MECHANISMS OF DISEASE: OBESITY AND RELATED METABOLIC DISEASES 3 Credit Hours

(Slashed with BSCI 50151 and BSCI 70151) Addresses obesity from multiple angles, including health and disease process, underlying physiology and cell and molecular biology and the role of behavior. Emphasis on a review of primary literature to discuss obesity causes, consequences and treatments.

Prerequisite: BSCI 21010 or BSCI 30130 or (BSCI 30140 and NEUR 30100) or BSCI 40430; and BSCI 10120 with a minimum C- grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40152 MOLECULAR MECHANISMS OF DISEASE: NEUROLOGICAL DISORDERS 3 Credit Hours

(Slashed with BSCI 50152 and BSCI 70152) Major concepts and theoretical principles underlying neurological disorders.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40154 DIABETES AND CARDIOVASCULAR DISEASE 3 Credit Hours

(Slashed with BSCI 50154 and BSCI 70154) Physiological aspects of diabetes and cardiovascular disease, including associated pathologies and therapies.

Prerequisite: BSCI 40430; or BSCI 30140 and BSCI 30130.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40157 NEUROBIOLOGY OF DRUG ADDICTION 3 Credit Hours

(Slashed with BSCI 50157 and BSCI 70157) Introduction to neural structures, circuitry, and chemistry underlying drug addiction, main categories of drugs of abuse, and how brain cells and circuits are modified in response to addictive drugs.

Prerequisite: Minimum C- grades in BSCI 10110 and BSCI 10120; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40158 MOLECULAR BIOLOGY 3 Credit Hours

(Slashed with BSCI 50158 and BSCI 70158) Molecular genetics, DNA and RNA structure, chromosomes, DNA replication and repair, transcription and translation, regulation of gene expression, current concepts and technologies.

Prerequisite: BSCI 30140 and BSCI 30156.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40159 MOLECULAR BIOLOGY LABORATORY (ELR) (WIC) 3 Credit Hours

(Slashed with BSCI 50159 and BSCI 70159) Experience in research methods for studying cellular and molecular processes in plant and animal systems.

Prerequisite: BSCI 30140 and BSCI 30156.

Schedule Type: Laboratory

Contact Hours: 6 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

BSCI 40160 MARINE BIOLOGY 3 Credit Hours

(Slashed with BSCI 50160 and BSCI 70160) Natural history and ecology of marine organisms, with emphasis on life in coastal habitats.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40162 SOIL BIOLOGY 3 Credit Hours

(Slashed with BSCI 50162 and BSCI 70162) The ecology and physiology of organisms that live in soil, including microbes, plants and animals. The physical and chemical aspects of soil are introduced to understand how organisms in soils impact nutrient cycles and ecosystem development.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120; and junior or senior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40163 EVOLUTION 3 Credit Hours

(Slashed with BSCI 50163 and BSCI 70163) History of evolutionary theory, the evidences of evolution, the evolutionary forces and the products of these forces. Lecture three hours weekly.

Prerequisite: BSCI 30156; and 4 credit hours of Biological Sciences (BSCI) courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40170 STREAM BIOLOGY 3 Credit Hours

(Slashed with BSCI 50170 and BSCI 70170) This course explores the physical, chemical and biological aspects of flowing water ecosystems. We cover topics across many levels of biological organization (individual organisms to communities) and broad geographic extents (habitat patches to global cycles), and process these ranges from simple to complex. The lecture covers basic concepts and the lab supports these concepts with field and lab measurements. The course culminates with independent projects that explore current issues related to human impacts on streams.

Prerequisite: BSCI 10110 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 40174 IMMUNOLOGY 3 Credit Hours

(Slashed with BSCI 50174 and BSCI 70174) This course covers innate and adaptive immune recognition and response, generation of diversity in antigen receptors of T cells and B cells, lymphocyte development and T cell activation and regulation pathways. It also covers immune resistance to infection, mechanisms of allergic responses, autoimmune disease, tissue and organ transplantation and cancer immunology.

Prerequisite: BSCI 30171 and CHEM 10061 and CHEM 10062 and CHEM 10063; and CHEM 10058 or CHEM 10060 or CHEM 11060.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40191 SENIOR SEMINAR 1 Credit Hour

(Repeatable for credit) A capstone seminar course to examine biological topics and scientific contributions across subdisciplines. Discussion of current problems in the biological sciences related to societal needs and concerns.

Prerequisite: Biology major; and senior standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BSCI 40192 INTERNSHIP IN BIOLOGICAL SCIENCES (ELR) 3-12 Credit Hours

(Repeatable for credit) Work experience and training in the biological sciences under the supervision of appropriate personnel in a government agency, nonprofit organization or business. Maximum of 4 credit hours to count toward BSCI degrees as upper division elective hours.

Prerequisite: 18 hours of Biology; and 2.750 minimum overall GPA in Biology coursework; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-12 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40195 SPECIAL TOPICS IN BIOLOGY 1-3 Credit Hours

(Repeatable for credit) (Slashed with BSCI 50195 and BSCI 70195) Special topics in biology.

Prerequisite: 18 hours of Biology coursework; and special approval of instructor.

Schedule Type: Laboratory, Lecture

Contact Hours: 1-3 lecture, 2-6 lab

Grade Mode: Standard Letter-IP

BSCI 40196 INDIVIDUAL INVESTIGATION (ELR) 1-3 Credit Hours

(Repeatable for credit) Research study under the direction of a BSCI faculty mentor. May be repeated; however, a maximum of 6 credit hours count toward BSCI degrees as upper-division elective hours.

Prerequisite: A minimum BSCI grade average of 2.750; and at least 18 credit hours of BSCI coursework; and departmental and faculty mentor approvals required.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

BSCI 40199 SENIOR HONORS THESIS (ELR) 1-9 Credit Hours

(Repeatable for credit) Honors thesis research project completed during the senior year with BSCI faculty mentor and research committee. Maximum of 4 credit hours to count toward BSCI degrees as upper division elective hours.

Prerequisite: Departmental faculty mentor; and honors college approval.

Schedule Type: Project or Capstone

Contact Hours: 1-9 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

BSCI 40218 INTRODUCTION TO GENOMICS 3 Credit Hours

(Slashed with BSCI 50218 and BSCI 70218) This course provides an introduction to the structure, organization and function of genomes as well as technological approaches to sequencing and analyzing genomes. Students will explore the application of genomic tools to real-world problems, such as developing sustainable food and fuel supplies, improving disease treatment, understanding biodiversity and protecting the environment.

Prerequisite: Minimum C- grade in BSCI 10110 and BSCI 10120.

Pre/corequisite: BSCI 30156.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40220 BIOINFORMATICS 3 Credit Hours

(Cross-listed with BTEC 40220) (Slashed with BSCI 50220 and BSCI 70220) Analysis of biological databases, including nucleic acid and protein sequence searching, multiple sequence alignment, protein classification, phylogenetic analysis, comparative genomics, proteomics and protein structure analysis.

Prerequisite: BSCI 30140 and BSCI 30156 and BSCI 40158.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40222 INVASION BIOLOGY 3 Credit Hours

(Slashed with BSCI 50222 and BSCI 70222) This course will provide an overview of the science of biological invasions, focusing on the processes of introduction, establishment, and spread. It will discuss both invasions of species from other countries as well as encroachment of native species. The economic and ecological impacts of both plant and animal invasive species, as well as ways of combating the harmful effects of invasions will be discussed.

Prerequisite: BSCI 10110.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40224 QUANTITATIVE METHODS IN BIOLOGY 4 Credit Hours

Introduction to the quantitative skills required of practicing biologists (experimental design, graphing, inference and management of biological data). Real data from biological studies are used to address fundamental questions of the biological sciences. Laboratory exercises give experience with spreadsheet and statistical software used by practicing biologists.

Prerequisite: BSCI 10110 or BSCI 10120 with a minimum C- grade; and minimum C grade in the following courses: MATH 10675 or MATH 10775 or MATH 11010 or MATH 11022 or MATH 12002, or minimum 55 ALEKS math score.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

BSCI 40242 SEMINAR ON MEDICAL PRACTICE FOR UNDERSERVED POPULATIONS 2 Credit Hours

(Slashed with BSCI 50242). Course will introduce students to primary care and medical practice in rural and urban settings. Physicians and other healthcare practitioners from rural and urban settings will serve as invited speakers in this seminar. Preference for registration will be given to students following the Baccalaureate-MD program with junior standing and minimum 3.500 overall GPA.

Prerequisite: Special approval.

Schedule Type: Seminar

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory

BSCI 40270 PLANT ECOLOGY 3 Credit Hours

(Slashed with BSCI 50270 and BSCI 70270) Develop knowledge of plant ecology. Learn about the abiotic and biotic effects of plant ecology. Differentiate among population ecology, metapopulation ecology and community ecology as it applies to plants. Use stage-structured population models to understand population dynamics. Learn about resource-ratio models as they apply to plant competition. Study the patterns and mechanisms of succession. BSCI 30360 and/or any courses covering plant science are recommended prior to taking this course.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40272 PLANT ANATOMY 4 Credit Hours

(Slashed with BSCI 50272 and BSCI 70272) Development and structure of cells, tissues and tissue systems of seed plants. Both vegetative and reproductive structures of angiosperms are emphasized.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 40274 PLANT COMMUNITIES OF OHIO 3 Credit Hours

(Slashed with BSCI 50274 and BSCI 70274) Designed to familiarize students with the range of plant communities within Ohio by relating plant identification to biological, hydrological, geological, and climatic forces.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40292 INTERNSHIP IN PRIMARY CARE FOR THE UNDERSERVED (ELR) 2 Credit Hours

Students are placed in internships in urban or rural healthcare settings. Registration preference will be given to students following the Baccalaureate/M.D. pathway and who have junior standing and a minimum 3.500 overall GPA.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 6 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40356 EXPLORING MYSTERIES OF BIODIVERSITY 3 Credit Hours

(Slashed with BSCI 50356 and BSCI 70356) This course explores modern issues and mysteries surrounding the study of biodiversity using a conservation-based framework. Among course topics are characterizing biodiversity, searching for new and missing species, hidden/cryptic species, studying secretive species, management of endangered species, species reintroductions, Lazarus ecology (i.e., rediscovering species presumed extinct), resurrection ecology (i.e., bringing back ancient species), effects of human conflict on biodiversity and cryptozoology. Major issues, methodology (techniques/approaches) and ethics are explored across all course topics and include discussion of ecological, evolutionary, behavioral, genetic and reproductive aspects.

Prerequisite: BSCI 10110 with a minimum C- grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40360 ICHTHYOLOGY 4 Credit Hours

(Slashed with BSCI 50360 and BSCI 70360) Basic biology, natural history, behavior and ecology of the fishes.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade; and junior standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 40363 MICROBIAL ECOLOGY 3 Credit Hours

(Slashed with BSCI 50363 and BSCI 70363) Microbial interactions with their biotic and abiotic environment; control of distribution and physiological activities; biochemical cycles; current techniques; emphasis on bacteria in aquatic systems.

Prerequisite: BSCI 30171 or BSCI 30360.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

BSCI 40364 LIMNOLOGY 3 Credit Hours

(Slashed with BSCI 50364 and BSCI 70364) The study of the principles of aquatic ecology with emphasis on lakes and reservoirs.

Prerequisite: BSCI 30360.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40365 FIELD METHODS IN ORNITHOLOGY (ELR) 3 Credit Hours

(Slashed with BSCI 50365 and BSCI 70365) Habitat-based survey of Ohio birds. Field-based lectures and activities cover location, observation and identification of birds and their songs, as well as bird ecology and behavior.

Prerequisite: BSCI 10110 with a minimum C- grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40368 WETLAND ECOLOGY AND MANAGEMENT (ELR) 4 Credit Hours

(Slashed with BSCI 50368 and BSCI 70368) Lecture, laboratory and field study of the principles of wetland ecology, including adaptations of the biota to environmental conditions, comparison among different wetland habitat types and habitat management.

Prerequisite: BSCI 10110 with a minimum C- grade; and 4 credit hours of Biological Sciences (BSCI) courses.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40374 CONSERVATION BIOLOGY (ELR) 4 Credit Hours

(Slashed with BSCI 50374 and BSCI 70374) Provides a critical analysis of the factors that threaten biological diversity in the biosphere and the consequences on biological processes and quality of life.

Prerequisite: BSCI 30360.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40375 ENVIRONMENTAL BIOLOGY AND MANAGEMENT 4 Credit Hours

(Slashed with BSCI 50375 and BSCI 70375) Introduction to current concepts in applied ecology and ecosystem management. Students will learn aspects of ecosystem management and restoration including: 1) how environmental factors affect organism survival and ecosystem structure, 2) how human impacts such as pollution, habitat fragmentation, introduction of invasive species affect ecosystems, and 3) the use of ecological principles and methods to restore and manage ecosystems.

Prerequisite: BSCI 30360.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BSCI 40376 TROPICAL FIELD BIOLOGY AND CONSERVATION (ELR) 5 Credit Hours

(Slashed with BSCI 50376 and BSCI 70376) Introduction to major issues in tropical ecology and conservation including the threats to the biological diversity of tropical ecosystems resulting from human activities. Students learn how to apply modern field-observation techniques to generate and test problem-solving hypotheses.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120; junior or senior standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 6 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40377 PREPARATION FOR FIELD COURSE TO SOUTH AFRICA 1 Credit Hour

(Slashed with BSCI 50377 and BSCI 70377) Introduction to major issues in field ecology and conservation in South Africa, including the threats to the biological diversity of subtropical ecosystems resulting from human activities. Students learn how to apply modern field-observation techniques to generate and test problem-solving hypotheses. Three major biomes in South Africa will be studied: the savanna, the fynbos (macchia) and Succulent Karoo (= Cape Floral Kingdom.) Lectures will focus on the geography and history of South Africa, as well as introductions to the major South African biomes. Students will design field projects targeted to South African biomes.

Prerequisite: BSCI 10110 with a minimum C- grade; and junior standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1 lecture, 0 lab, 0 other

Grade Mode: Satisfactory/Unsatisfactory

BSCI 40378 FIELD COURSE TO SOUTH AFRICA (ELR) 4 Credit Hours

(Slashed with BSCI 50378 and BSCI 70378) This course covers all steps of the development and implementation of field-based research in South African environments, including design and analysis. Students write a report, present their research, apply data management and statistical tests appropriate for field courses (including contingency tables, basic t-tests, ANOVA and regression techniques) and develop scientific graphs and figures.

Prerequisite: BSCI 40377.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 6 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40380 BIOGEOCHEMISTRY 3 Credit Hours

(Cross-listed with ESCI 40380)(Slashed with BSCI 50380, BSCI 70380 and ESCI 50380) This course explores the chemical, physical, geological and biological processes and reactions that shape the world around us, and provides tools for understanding human alterations to global systems.

Throughout this course, students explore elemental cycles of diverse terrestrial and aquatic ecosystems, as well as assess how humans have drastically altered these elemental cycles on a global scale and the implications of these changes for biological systems.

Prerequisite: Minimum C grade in the following courses: (BSCI 10110 and BSCI 10120) or (ESCI 11041 or ESCI 11043); and (CHEM 10058 or CHEM 10060) and CHEM 10062.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40385 CURRENT TOPICS IN NEUROSCIENCE 3 Credit Hours

(Cross-listed with NEUR 40385)(Slashed with BSCI 50385 and BSCI 70385) This is a discussion- and readings-based course that focuses on cellular and molecular mechanisms underpinning functions of the central nervous system. Topics covered include synaptic plasticity; neuron-glia interactions; gene-environment interactions involved in learning, memory and disease; big data in neuroscience; and more. During this course, students develop knowledge and understanding of communication between brain cells; how gene-environment interactions impact learning and memory, behavior and disease; and modern techniques used in neuroscience research. Students read, summarize and discuss primary research papers in the context of neuroscience-related topics.

Prerequisite: BSCI 30140.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40389 ECOLOGY AND NATURAL HISTORY OF MEDITERRANEAN ECOSYSTEMS (ELR) 3 Credit Hours

The Mediterranean basin is a hotspot of diversity made of plant and animal species adapted to survive to hot dry summers and cool wet winters. The origin and drivers of the today's Mediterranean diversity will be examined through this course, and the ecology of this biome will be investigated through textbooks, videos and up-to-date research papers. Impacts of climate change and of human-practices will be considered both on terrestrial and marine ecosystems to give a wide view of the ongoing processes in the considered habitats and conservation strategies will be critically analyzed through discussion.

Prerequisite: BSCI 10110.

Schedule Type: International Experience, Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40429 NEURAL CONTROL OF REPRODUCTIVE FUNCTION 2 Credit Hours

(Cross-listed with NEUR 40429)(Slashed with BSCI 50429 and BSCI 70429) Course explores the role of the brain in regulating functions that are essential to ensure successful reproduction. Topics covered include an overview of the endocrine and neuroendocrine systems involved in reproduction, as well as regulation of puberty, fertility, pregnancy and lactation. The course also explores disorders, such as polycystic ovary syndrome, affecting the central regulation of reproduction.

Prerequisite: BSCI 30130 or BSCI 40430 or NEUR 30100.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 40430 ANIMAL PHYSIOLOGY 3 Credit Hours

Physiologic principles and concepts.

Prerequisite: Minimum C- grade in the following courses: BSCI 10110 and BSCI 10120; and (CHEM 10058 or CHEM 10060) and (CHEM 10059 or CHEM 10061).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40431 NEUROENDOCRINOLOGY 3 Credit Hours

(Slashed with BSCI 50431 and BSCI 70431) This course is an introduction to neuroendocrinology. There will be a focus on the major sources of neurohormones, the different classes of neurohormones, as well as how neurohormones are regulated, how they signal, and how they function. This course will integrate aspects of endocrinology, neuroscience, and physiology. After completion of this course students should have a basic understanding of the various neuroendocrine messengers and how they function.

Prerequisite: BSCI 30130 or BSCI 40430 or BSCI 40460 or NEUR 30100.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40432 ENDOCRINOLOGY 3 Credit Hours

(Slashed with BSCI 50432 and BSCI 70432) Principles of endocrine regulation of physiological and metabolic processes. Morphological and functional interrelationships between systems.

Prerequisite: (BSCI 21010 and BSCI 21020) or BSCI 30130 or (BSCI 30140 and NEUR 30100 and NEUR 30200) or BSCI 40430.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40450 BIOLOGICAL CLOCKS 3 Credit Hours

(Slashed with BSCI 50450 and BSCI 70450) Topics covered include the characteristics of biological clocks; their ecology, molecular biology and neurobiology; the function and organization of sleep; and the medical implications of biological rhythmicity.

Prerequisite: BSCI 30156.

Pre/corequisite: BSCI 30100 or BSCI 40430 or NEUR 30100 or PSYC 41363.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40460 ADVANCED HUMAN PHYSIOLOGY 3 Credit Hours

(Slashed with BSCI 50460 and BSCI 70460) Major concepts and theoretical principles of human physiology, including nervous, endocrine, cardiovascular, respiratory, renal, gastrointestinal and reproductive systems.

Prerequisite: BSCI 30140; and junior standing.

Corequisite: BSCI 40462.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40462 ADVANCED HUMAN PHYSIOLOGY: READINGS AND CASE STUDIES 1 Credit Hour

(Slashed with BSCI 50462 and BSCI 70462) Designed to complement the lecture course in Advanced Human Physiology. Students will read primary literature in physiology and work independently and in groups to apply their knowledge to solving case studies.

Prerequisite: BSCI 30140; and junior standing.

Corequisite: BSCI 40460.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BSCI 40463 MEDICAL BIOTECHNOLOGY 3 Credit Hours

(Slashed with BSCI 50463 and BSCI 70463) (Cross-listed BTEC 40463) Medical Biotechnology provides a basic understanding of how living cells and cellular materials can be used for medical applications, particularly in the diagnosis and therapy of human diseases.

Prerequisite: BSCI 30140.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40466 MEDICAL AND VETERINARY ENTOMOLOGY 3 Credit Hours

(Slashed with BSCI 50466 and BSCI 70466) This course covers the ecology of flies, lice, ticks, spiders, and other arthropods with a medical or veterinary importance. The course will consist of lectures and discussions on topics including evolutionary adaptations and lifecycles, allergic responses, disease transmission, forensic entomology, entomophobia, veterinary pests, and pest control techniques.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40515 ANIMAL BEHAVIOR 3 Credit Hours

(Slashed with BSCI 50515 and BSCI 70515) Explores the evolution of various animal behaviors; functions they might serve; and interplay among the social, ecological and physiological mechanisms that regulate their occurrence.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade; and 6 additional credit hours of Biological Sciences (BSCI) courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40517 MEDICAL HISTOLOGY 3 Credit Hours

(Slashed with BSCI 50517 and BSCI 70517) Study of the microscopic and submicroscopic structure of the human body in relation to function.

Prerequisite: Minimum C- grade in the following courses: BSCI 10110 and BSCI 10120 and BSCI 30140.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 40519 HORMONES AND BEHAVIOR 3 Credit Hours

(Slashed with BSCI 50519 and BSCI 70519) Current concepts of hormone and behavior interactions across species.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40525 WILDLIFE RESOURCES (ELR) 3 Credit Hours

(Slashed with BSCI 50525 and BSCI 70525) Ecological parameters are discussed relative to the preservation and management of wild animal populations. Aesthetic, economic and environmental values are discussed. Lecture three hours weekly.

Prerequisite: Minimum C- grade in BSCI 10110; plus 4 hours of Biology coursework.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BSCI 40556 VERTEBRATE ZOOLOGY 4 Credit Hours

(Slashed with BSCI 50556 and BSCI 70556) Field approach to identification and natural history of all Ohio vertebrates.

Prerequisite: BSCI 10110 and BSCI 10120 with a minimum C- grade; and 4 credit hours of Biological Sciences (BSCI) courses.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 40558 MAMMALOGY 3 Credit Hours

(Slashed with BSCI 50558 and BSCI 70558) This course will explore the biology of mammals. The course is organized into three sections. Section 1 will define what a mammal is and explore their origin, evolution, and modern distribution. Section 2 will survey modern mammal taxonomic diversity. Section 3 will explore the environmental physiology and various ecological roles that mammals play using specific case studies of mammalian ecological interactions in the world's major biomes.

Prerequisite: Minimum C- grade in BSCI 10110.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40560 HERPETOLOGY 3 Credit Hours

(Slashed with BSCI 50560 and BSCI 70560) This course will explore the biology of amphibians and reptiles. The course is organized into three sections. Section 1 we will explore their origin, evolution, and modern diversity of amphibians and reptiles (Yes, you will be required to memorize a whole mess of taxonomic names!). Section 2 will survey various aspects of the biology of amphibians and reptiles. Section 3 will explore the various aspects of the ecology of amphibians and reptiles, and examine a few critical topics in amphibian and reptile conservation.

Prerequisite: Minimum C- grade in BSCI 10110.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 40581 ANIMAL PARASITOLOGY 4 Credit Hours

(Slashed with BSCI 50581) Morphology, physiology, life-histories, systematics and economic importance of parasites. Lecture two hours lab, six hours weekly.

Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120; and 4 hours of Biology coursework.

Schedule Type: Laboratory, Lecture

Contact Hours: 2 lecture, 6 lab

Grade Mode: Standard Letter

BSCI 40600 WRITING IN THE BIOLOGICAL SCIENCES (WIC) 1 Credit Hour

Writing-intensive course taken with a 3- or 4-credit-hour upper-division biology course. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

Prerequisite: Biology major; and junior standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

BSCI 40621 ISLAND BIOLOGY: STUDY OF NATURAL LABORATORIES 2 Credit Hours

Islands have long been regarded as important “natural laboratories” that have contributed to the advancements of many scientific disciplines, including evolution, ecology and conservation biology. Although islands comprise only 5% of the world’s land surface, they support 30% of the world’s biodiversity hotspots, which include rare and recently extinct species. This course provides students with an introduction to island biology and focuses on the following four areas: (1) defining islands and biodiversity, (2) identifying characteristics of islands and their implications for ecology, evolution of biodiversity, (3) understanding dynamics of spatially subsidized food webs on islands, and (4) identifying conservation and management concerns of island biotas. The goal of the course is to increase student awareness and appreciation of islands and associated biodiversity. This course is for students pursuing careers in any biological field including ecology, evolutionary biology, conservation biology, invasive ecology, wildlife management and pre-professional fields.

Prerequisite: BSCI 10110; and junior standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 50020 BIOLOGY OF AGING 3 Credit Hours

(Slashed with BSCI 40020) Course covers theories of aging and the normal aging process, dysfunction, and diseases of the elderly categorized by body systems and how nutrition and exercise can offset those changes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50141 EXPERIMENTAL DESIGN AND ANALYSIS IN MOLECULAR BIOLOGY 3 Credit Hours

(Slashed with BSCI 40141 and BSCI 70141) This course explores experimental design and analysis of biological data using tools of molecular biology. Students will study modern and classic techniques and learn the pros and cons of each technique as well as alternative approaches in the context of experiments. The course will consist of a combination of lectures, student presentations and class discussions based on recent primary literature, with particular focus on cell death and disease, including cancer.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50142 BIOENERGETICS 3 Credit Hours

(Slashed with BSCI 40142 and BSCI 70142) Lecture and discussion of respiration and photosynthesis, their origin development and control in living systems. Concepts are introduced from fundamental principles. Lecture three hours weekly.

Prerequisite: BSCI 40430; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50143 EUKARYOTIC CELL BIOLOGY 3 Credit Hours

(Slashed with BSCI 40143 and BSCI 70143) Current survey of the structure and function of eukaryotic cells, including recent advances in research technology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50146 DEVELOPMENTAL BIOLOGY 3 Credit Hours

(Slashed with BSCI 40146 and BSCI 70146) Fundamental concepts and paradigms of development as exemplified by major model organisms. Examines our modern understanding of the molecular, cellular and genetic basis of developmental biology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50147 DEVELOPMENTAL NEUROBIOLOGY 3 Credit Hours

(Slashed with BSCI 40147 and BSCI 70147) Covers fundamental principles of developmental neurobiology, including molecular and cellular processes involved in the formation of the vertebrate central nervous system.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50148 PRINCIPLES OF INFECTIOUS DISEASE 3 Credit Hours

(Slashed with BSCI 40148 and BSCI 70148) Basic principles of infectious disease with emphasis on major human pathogens, including protozoa, bacteria and viruses. Topics include infection establishment, spread within the host, pathology, immunity and host behavior.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50150 MOLECULAR MECHANISMS OF DISEASE: CANCER 3 Credit Hours

(Slashed with BSCI 40150 and BSCI 70150) Explores the current understanding of molecular and cellular mechanisms of disease processes, including new technologies and modern strategies at the forefront of future biomedical research. Emphasis on a review of primary literature.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50151 MECHANISMS OF DISEASE: OBESITY AND RELATED METABOLIC DISEASES 3 Credit Hours

(Slashed with BSCI 40151 and BSCI 70151) Addresses obesity from multiple angles, including health and disease process, underlying physiology and cell and molecular biology and the role of behavior. Emphasis on a review of primary literature to discuss obesity causes, consequences and treatments.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50152 MOLECULAR MECHANISMS OF DISEASE: NEUROLOGICAL DISORDERS 3 Credit Hours

(Slashed with BSCI 40152 and BSCI 70152) Major concepts and theoretical principles underlying neurological disorders.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50154 DIABETES AND CARDIOVASCULAR DISEASE 3 Credit Hours

(Slashed with BSCI 40154 and BSCI 70154) This course covers physiological aspects of diabetes and cardiovascular disease, including associated pathologies and therapies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50157 NEUROBIOLOGY OF DRUG ADDICTION 3 Credit Hours

(Slashed with BSCI 40157 and BSCI 70157) Introduction to neural structures, circuitry, and chemistry underlying drug addiction, main categories of drugs of abuse, and how brain cells and circuits are modified in response to addictive drugs.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50158 MOLECULAR BIOLOGY 3 Credit Hours

(Slashed with BSCI 40158 and BSCI 70158) Molecular genetics, DNA and RNA structure, chromosomes, DNA replication and repair, transcription and translation, regulation of gene expression, current concepts and technologies.

Prerequisite: BSCI 30156; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50159 MOLECULAR BIOLOGY LABORATORY 3 Credit Hours

(Slashed with BSCI 40159 and BSCI 70159) Experience in research methods for studying cellular and molecular processes in plant and animal systems.

Prerequisite: Graduate standing; and special approval from instructor.

Schedule Type: Laboratory

Contact Hours: 9 lab

Grade Mode: Standard Letter

BSCI 50160 MARINE BIOLOGY 3 Credit Hours

(Slashed with BSCI 40160 and BSCI 70160) Natural history and ecology of marine organisms, with emphasis on life in coastal habitats. Lecture three hours weekly.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50162 SOIL BIOLOGY 3 Credit Hours

(Slashed with BSCI 40162 and BSCI 70162) The ecology and physiology of organisms that live in soil, including microbes, plants and animals. The physical and chemical aspects of soil are introduced to understand how organisms in soils impact nutrient cycles and ecosystem development.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50163 EVOLUTION 3 Credit Hours

(Slashed with BSCI 40163 and BSCI 70163) Discussion of the history of evolutionary theory, the evidence of evolution the evolutionary forces and the products of those forces.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50170 STREAM BIOLOGY 3 Credit Hours

(Slashed with BSCI 40170 and BSCI 70170) This course explores the physical, chemical and biological aspects of flowing water ecosystems. We cover topics across many levels of biological organization (individual organisms to communities) and broad geographic extents (habitat patches to global cycles), and process these ranges from simple to complex. The lecture covers basic concepts and the lab supports these concepts with field and lab measurements. The course culminates with independent projects that explore current issues related to human impacts on streams.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 50174 IMMUNOLOGY 3 Credit Hours

(Slashed with BSCI 40174 and BSCI 70174) This course covers innate and adaptive immune recognition and response, generation of diversity in antigen receptors of T cells and B cells, lymphocyte development and T cell activation and regulation pathways. It also covers immune resistance to infection, mechanisms of allergic responses, autoimmune disease, tissue and organ transplantation and cancer immunology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50195 SPECIAL TOPICS IN BIOLOGY 1-3 Credit Hours

(Repeatable for credit) (Slashed with BSCI 40195 and BSCI 70195) Special topics in biology.

Prerequisite: Graduate standing; and special approval of instructor.

Schedule Type: Laboratory, Lecture

Contact Hours: 1-3 lecture, 2-6 lab

Grade Mode: Standard Letter-IP

BSCI 50218 INTRODUCTION TO GENOMICS 3 Credit Hours

(Slashed with BSCI 40218 and BSCI 70218) This course provides an introduction to the structure, organization and function of genomes as well as technological approaches to sequencing and analyzing genomes. Students will explore the application of genomic tools to real-world problems, such as developing sustainable food and fuel supplies, improving disease treatment, understanding biodiversity and protecting the environment.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50220 BIOINFORMATICS 3 Credit Hours

(Slashed with BSCI 40220, BSCI 70220 and BTEC 40220) Analysis of biological databases, including nucleic acid and protein sequence searching, multiple sequence alignment, protein classification, phylogenetic analysis, comparative genomics, proteomics, protein structure analysis.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50222 INVASION BIOLOGY 3 Credit Hours

(Slashed with BSCI 40222 and BSCI 70222) This course will provide an overview of the science of biological invasions, focusing on the processes of introduction, establishment, and spread. It will discuss both invasions of species from other countries as well as encroachment of native species. The economic and ecological impacts of both plant and animal invasive species, as well as ways of combating the harmful effects of invasions will be discussed.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50242 SEMINAR ON MEDICAL PRACTICE FOR UNDERSERVED POPULATIONS 2 Credit Hours

(Slashed with BSCI 40242). Course will introduce students to primary care and medical practice in rural and urban settings. Physicians and other healthcare practitioners from rural and urban settings will serve as invited speakers in this seminar. Preference for registration will be given to students following the MA-MD program.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory

BSCI 50270 PLANT ECOLOGY 3 Credit Hours

(Slashed with BSCI 40270 and BSCI 70270) Develop knowledge of plant ecology. Learn about the abiotic and biotic effects of plant ecology. Differentiate among population ecology, metapopulation ecology and community ecology as it applies to plants. Use stage-structured population models to understand population dynamics. Learn about resource-ratio models as they apply to plant competition. Study the patterns and mechanisms of succession.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50272 PLANT ANATOMY 4 Credit Hours

(Slashed with BSCI 40272 and BSCI 70272) Development and structure of cells, tissues and tissue systems of seed plants. Both vegetative and reproductive structures of angiosperms are emphasized.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 50274 PLANT COMMUNITIES OF OHIO 3 Credit Hours

(Slashed with BSCI 40274 and BSCI 70274) Designed to familiarize students with the range of plant communities within Ohio by relating plant identification to biological, hydrological, geological, and climatic forces.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50356 EXPLORING MYSTERIES OF BIODIVERSITY 3 Credit Hours

(Slashed with BSCI 40356 and BSCI 70356) This course explores modern issues and mysteries surrounding the study of biodiversity using a conservation-based framework. Among course topics are characterizing biodiversity, searching for new and missing species, hidden/cryptic species, studying secretive species, management of endangered species, species reintroductions, Lazarus ecology (i.e., rediscovering species presumed extinct), resurrection ecology (i.e., bringing back ancient species), effects of human conflict on biodiversity and cryptozoology. Major issues, methodology (techniques/approaches) and ethics are explored across all course topics and include discussion of ecological, evolutionary, behavioral, genetic and reproductive aspects.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50360 ICHTHYOLOGY 4 Credit Hours

(Slashed with BSCI 40360 and BSCI 70360) Basic biology, natural history, behavior and ecology of the fishes.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 50363 MICROBIAL ECOLOGY 3 Credit Hours

(Slashed with BSCI 40363 and BSCI 70363) Microbial interactions with their biotic and abiotic environment; control of distribution and physiological activities; emphasis on bacteria in aquatic systems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50364 LIMNOLOGY 3 Credit Hours

(Slashed with BSCI 40364 and BSCI 70364) The study of the principles of aquatic ecology with emphasis on lakes and reservoirs.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50365 FIELD METHODS IN ORNITHOLOGY 3 Credit Hours
(Slashed with BSCI 40365 and BSCI 70365) Habitat-based survey of Ohio birds. Field-based lectures and activities cover location, observation and identification of birds and their songs, as well as bird ecology and behavior.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 50368 WETLAND ECOLOGY AND MANAGEMENT 4 Credit Hours

(Slashed with BSCI 40368 and BSCI 70368) Lecture, laboratory and field study of the principles of wetland ecology, including adaptations of the biota to environmental conditions, comparison among different wetland habitat types and habitat management.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 50374 CONSERVATION BIOLOGY 4 Credit Hours

(Slashed with BSCI 40374 and BSCI 70374) Provides a critical analysis of the factors that threaten biological diversity in the biosphere and the consequences on biological processes and quality of life.

Prerequisite: BSCI 30360; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BSCI 50375 ENVIRONMENTAL BIOLOGY AND MANAGEMENT 4 Credit Hours

(Slashed with BSCI 40375 and BSCI 70375) Introduction to current concepts in applied ecology and ecosystem management. Students will learn aspects of ecosystem management and restoration including: 1) how environmental factors affect organism survival and ecosystem structure, 2) how human impacts such as pollution, habitat fragmentation, introduction of invasive species affect ecosystems, and 3) the use of ecological principles and methods to restore and manage ecosystems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BSCI 50376 TROPICAL FIELD BIOLOGY AND CONSERVATION 5 Credit Hours

(Slashed with BSCI 40376 and BSCI 70376) Introduction to major issues in tropical ecology and conservation including the threats to the biological diversity of tropical ecosystems resulting from human activities. Students learn how to apply modern field-observation techniques to generate and test problem-solving hypotheses.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 6 lab

Grade Mode: Standard Letter

BSCI 50377 PREPARATION FOR FIELD COURSE TO SOUTH AFRICA 1 Credit Hour

(Slashed with BSCI 40377 and BSCI 70377) Introduction to major issues in field ecology and conservation in South Africa, including the threats to the biological diversity of subtropical ecosystems resulting from human activities. Students learn how to apply modern field-observation techniques to generate and test problem-solving hypotheses. Three major biomes in South Africa will be studied: the savanna, the fynbos (macchia) and Succulent Karoo (= Cape Floral Kingdom.) Lectures on the geography and history of South Africa, as well as introductions to the major South African biomes will be covered. Students will design field projects targeted to South African biomes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BSCI 50378 FIELD COURSE TO SOUTH AFRICA 4 Credit Hours

(Slashed with BSCI 40378 and BSCI 70378) This course covers all steps of the development and implementation of field-based research in South African environments, including design and analysis. Students write a report, present their research, apply data management and statistical tests appropriate for field courses (including contingency tables, basic t-tests, ANOVA and regression techniques) and develop scientific graphs and figures.

Prerequisite: BSCI 50377; and graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 6 lab

Grade Mode: Standard Letter

BSCI 50380 BIOGEOCHEMISTRY 3 Credit Hours

(Cross-listed with ESCI 50380)(Slashed with BSCI 40380, BSCI 70380 and ESCI 40380) This course explores the chemical, physical, geological and biological processes and reactions that shape the world around us, and provides tools for understanding human alterations to global systems. Throughout this course, students explore elemental cycles of diverse terrestrial and aquatic ecosystems, as well as assess how humans have drastically altered these elemental cycles on a global scale and the implications of these changes for biological systems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50385 CURRENT TOPICS IN NEUROSCIENCE 3 Credit Hours

(Slashed with BSCI 40385, BSCI 70385 and NEUR 40385) This is a discussion- and readings-based course that focuses on cellular and molecular mechanisms underpinning functions of the central nervous system. Topics covered include synaptic plasticity; neuron-glia interactions; gene-environment interactions involved in learning, memory and disease; big data in neuroscience; and more. During this course, students develop knowledge and understanding of communication between brain cells; how gene-environment interactions impact learning and memory, behavior and disease; and modern techniques used in neuroscience research. Students read, summarize and discuss primary research papers in the context of neuroscience-related topics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50429 NEURAL CONTROL OF REPRODUCTIVE FUNCTION 2 Credit Hours

(Slashed with BSCI 40429, BSCI 70429 and NEUR 40429) Course explores the role of the brain in regulating functions that are essential to ensure successful reproduction. Topics covered include an overview of the endocrine and neuroendocrine systems involved in reproduction, as well as regulation of puberty, fertility, pregnancy and lactation. The course also explores disorders, such as polycystic ovary syndrome, affecting the central regulation of reproduction.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 50431 NEUROENDOCRINOLOGY 3 Credit Hours

(Slashed with BSCI 40431 and BSCI 70431) This course is an introduction to neuroendocrinology. There will be a focus on the major sources of neurohormones, the different classes of neurohormones, as well as how neurohormones are regulated, how they signal, and how they function. This course will integrate aspects of endocrinology, neuroscience, and physiology. After completion of this course students should have a basic understanding of the various neuroendocrine messengers and how they function.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50432 ENDOCRINOLOGY 3 Credit Hours

(Slashed with BSCI 40432 and BSCI 70432) Principles of endocrine regulation of physiological and metabolic processes. Morphological and functional interrelationships between systems.

Prerequisite: BSCI 40430; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50450 BIOLOGICAL CLOCKS 3 Credit Hours

(Slashed with BSCI 40450 and BSCI 70450) Topics covered include the characteristics of biological clocks; their ecology, molecular biology and neurobiology; the function and organization of sleep; and the medical implications of biological rhythmicity.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50460 ADVANCED HUMAN PHYSIOLOGY 3 Credit Hours

(Slashed with BSCI 40460 and BSCI 70460) Major concepts and theoretical principles of human physiology, including nervous, endocrine, cardiovascular, respiratory, renal, gastrointestinal and reproductive systems.

Prerequisite: Graduate standing.

Corequisite: BSCI 50462.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50462 ADVANCED HUMAN PHYSIOLOGY: READINGS AND CASE STUDIES 1 Credit Hour

(Slashed with BSCI 40462 and BSCI 70462) Designed to complement the lecture course in Advanced Human Physiology. Students will read primary literature in physiology and work independently and in groups to apply their knowledge to solving case studies.

Prerequisite: Graduate standing.

Corequisite: BSCI 50460.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BSCI 50463 MEDICAL BIOTECHNOLOGY 3 Credit Hours

(Slashed with BSCI 40463, BSCI 70463 and BTEC 40463) Medical Biotechnology provides a basic understanding of how living cells and cellular materials can be used for medical applications, particularly in the diagnosis and therapy of human diseases.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50466 MEDICAL AND VETERINARY ENTOMOLOGY 3 Credit Hours

(Slashed with BSCI 40466 and BSCI 70466) This course covers the ecology of flies, lice, ticks, spiders, and other arthropods with a medical or veterinary importance. The course will consist of lectures and discussions on topics including evolutionary adaptations and lifecycles, allergic responses, disease transmission, forensic entomology, entomophobia, veterinary pests, and pest control techniques.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50515 ANIMAL BEHAVIOR 3 Credit Hours

(Slashed with BSCI 40515 and BSCI 70515) Explores the evolution of various animal behaviors; functions they might serve; and interplay among the social, ecological and physiological mechanisms that regulate their occurrence.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50517 MEDICAL HISTOLOGY 3 Credit Hours

(Slashed with BSCI 40517 and BSCI 70517) Study of the microscopic and submicroscopic structure of the human body in relation to function.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 50519 HORMONES AND BEHAVIOR 3 Credit Hours

(Slashed with BSCI 40519 and BSCI 70519) Current concepts of hormone and behavior interactions across species.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50525 WILDLIFE RESOURCES 3 Credit Hours

(Slashed with BSCI 40525 and BSCI 70525) Ecological parameters are discussed relative to the preservation and management of wild animal populations. Aesthetic economic and environmental values are discussed. Lecture three hours weekly.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50556 VERTEBRATE ZOOLOGY 4 Credit Hours

(Slashed with BSCI 40556 and BSCI 70556) Field approach to identification and natural history of all Ohio vertebrates.

Prerequisite: 4 credit hours of Biological Sciences (BSCI) courses; and graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 50558 MAMMALOGY 3 Credit Hours

(Slashed with BSCI 40558 and BSCI 70558) This course will explore the biology of mammals. The course is organized into three sections. Section 1 will define what a mammal is and explore their origin, evolution, and modern distribution. Section 2 will survey modern mammal taxonomic diversity. Section 3 will explore the environmental physiology and various ecological roles that mammals play using specific case studies of mammalian ecological interactions in the world's major biomes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50560 HERPETOLOGY 3 Credit Hours

(Slashed with BSCI 40560 and BSCI 70560) This course will explore the biology of amphibians and reptiles. The course is organized into three sections. Section 1 we will explore their origin, evolution, and modern diversity of amphibians and reptiles (Yes, you will be required to memorize a whole mess of taxonomic names!). Section 2 will survey various aspects of the biology of amphibians and reptiles. Section 3 will explore the various aspects of the ecology of amphibians and reptiles, and examine a few critical topics in amphibian and reptile conservation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 50581 ANIMAL PARASITOLOGY 4 Credit Hours

(Slashed with BSCI 40581) Morphology, physiology, life-histories, systematics and economic importance of parasites. Lecture two hours, lab six hours weekly.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 2 lecture, 6 other

Grade Mode: Standard Letter

BSCI 60104 BIOLOGICAL STATISTICS 4 Credit Hours

(Slashed with BSCI 70104) Principles of experimental design and statistical analysis and how to choose and interpret statistical tests using biological data sets.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

BSCI 60105 CAREER PATHWAYS IN BIOLOGY 1 Credit Hour

This course orients students to graduate studies and to various career pathways in the biological sciences. Students will learn about a variety of possible careers, and prepare application materials needed to enter the workforce or apply to additional graduate programs.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BSCI 60107 REPRODUCIBLE QUANTITATIVE METHODS FOR ECOLOGICAL DATA 4 Credit Hours

(Slashed with BSCI 80107) Using real, data driven examples from ecology and the environmental sciences, this course walks students through the process of scientific analysis and communication in a new, open, technologically enabled framework, and place technical skills in the context of reproducible research philosophy, ethics and regulations. Topics include data management and metadata, reproducible programming, and data visualization.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

BSCI 60110 CAREER AND PROFESSIONAL SKILLS FOR LIFE SCIENTISTS 2 Credit Hours

(Cross-listed with BMS 60110)(Slashed with BMS 80110 and BSCI 80110) This course helps prepare graduate students for advanced careers in science. Students learn about a variety of possible careers, prepare application materials and develop their professional oral and writing skills.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Satisfactory/Unsatisfactory

BSCI 60144 SELECTED READINGS IN EUKARYOTIC CELL BIOLOGY 1 Credit Hour

(Slashed with BSCI 70144) Directed readings in cell and molecular biology from the primary and review literature will be presented and discussed by the students.

Prerequisite: Graduate standing.

Corequisite: BSCI 50143.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BSCI 60184 RESPONSIBLE CONDUCT IN RESEARCH AND TEACHING-BIOLOGICAL SCIENCES 2 Credit Hours

(Slashed with BSCI 70184) Educates biology graduate students in central aspects of the responsible and effective conduct of research and teaching. Topics include appropriate conduct in the laboratory, effective presentations and issues related to proposal and manuscript preparation and review.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Satisfactory/Unsatisfactory

BSCI 60191 SEMINAR IN BIOLOGY 1 Credit Hour

(Repeatable for credit) Departmental seminar required of all graduate students.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 60196 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) (Slashed with BSCI 70196) Individual investigation in biology.

Prerequisite: Special approval of instructor and graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

BSCI 60198 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for master's level graduate students. Credits earned may be applied toward degree requirements if department approves.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 60199 THESIS I 2-6 Credit Hours

Thesis students must register for a minimum of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 60200 FOUNDATIONS OF NEUROSCIENCE 3 Credit Hours

(Cross-listed with BMS 60200)(Slashed with BMS 80200 and BSCI 80200)

This is a graduate-level introductory neuroscience course that will survey aspects of molecular and cellular neuroscience, the biophysics of the nervous system, basic neuroanatomy, and the homeostatic regulation of the periphery. After completion of this course students should have an understanding of how cells of the nervous system work, how these cells interact with homeostatic systems important to the regulation of peripheral physiology and behavior, and the basic neuroanatomy of these regulatory systems, including major neurotransmitter and neuroendocrine systems. Upon completion of this course, students should be prepared for advanced neuroscience coursework.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 60299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: BSCI 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 60370 ECOLOGICAL AND EVOLUTIONARY GENETICS 2 Credit Hours

(Slashed with BSCI 70370) Genetic and genomic approaches to studying ecology and evolution in populations and communities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 60371 EVOLUTIONARY BIOLOGY 2 Credit Hours

(Slashed with BSCI 70371) Theoretical and experimental approaches to studying evolution from genes to populations and communities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 60372 COMMUNITIES AND ECOSYSTEMS 2 Credit Hours

(Slashed with BSCI 70372) Theory and experimental approaches to studying community and ecosystem ecology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 60373 POPULATION AND COMMUNITY ECOLOGY 2 Credit Hours

(Slashed with BSCI 70373) Theory and experimental approaches to studying population and community ecology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 60391 SEMINAR IN ECOLOGY 1 Credit Hour

(Slashed with BSCI 70391)(Repeatable for credit) Seminar on topics in animal and plant ecology. Credits earned may be applied to degree if department approves.

Prerequisite: Graduate standing; and special approval of instructor.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 60462 NEUROBIOLOGY: SYSTEMS AND BEHAVIOR 4 Credit Hours

(Cross-listed with BMS 60462)(Slashed with BMS 70462 and BSCI 80462) Provides broad coverage of the parts of the central nervous systems and how they integrate sensory information, drive motor function and regulate behavior.

Prerequisite: BMS 60729 or BMS 70729; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BSCI 60491 SEMINAR IN PHYSIOLOGY 1 Credit Hour

(Repeatable for credit)(Slashed with BSCI 70491) Credits may be applied toward degree if department approves.

Prerequisite: Graduate standing; and special approval of instructor.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 60630 ADVANCED WRITING IN THE BIOLOGICAL SCIENCES 2 Credit Hours

(Slashed with BSCI 80630) Graduate students will track progress on a substantive writing task (e.g., thesis, dissertation, or manuscript) and complete exercises to enhance their capacity to communicate scientific findings in written formats and overcome barriers to productive writing habits. Students who do not have a specific writing project will work with the instructor to identify a project that aligns with their scholarly development and career goals, including but not limited to grant proposals, fellowship applications, literature review articles, research reports, etc. Students will pass the course by demonstrating consistent participation through attendance, submission of reflections on writing progress, and submission of short-term, skills based writing activities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture, 0 lab, 0 other

Grade Mode: Satisfactory/Unsatisfactory

BSCI 70104 BIOLOGICAL STATISTICS 4 Credit Hours

(Slashed with BSCI 60104) Principles of experimental design and statistical analysis, and how to choose and interpret statistical tests using biological data sets.

Prerequisite: Doctoral standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

BSCI 70141 EXPERIMENTAL DESIGN AND ANALYSIS IN MOLECULAR BIOLOGY 3 Credit Hours

(Slashed with BSCI 40141 and BSCI 50141) This course explores experimental design and analysis of biological data using tools of molecular biology. Students will study modern and classic techniques and learn the pros and cons of each technique as well as alternative approaches in the context of experiments. The course will consist of a combination of lectures, student presentations and class discussions based on recent primary literature, with particular focus on cell death and disease, including cancer.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70142 BIOENERGETICS 3 Credit Hours

(Slashed with BSCI 40142 and BSCI 50142) Lecture and discussion of respiration and photosynthesis, their origin development and control in living systems. Concepts are introduced from fundamental principles. Lecture three hours weekly.

Prerequisite: BSCI 40430; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70143 EUKARYOTIC CELL BIOLOGY 3 Credit Hours

(Slashed with BSCI 40143 and BSCI 50143) Current survey of the structure and function of eukaryotic cells, including recent advances in research technology.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70144 SELECTED READINGS IN EUKARYOTIC CELL BIOLOGY 1 Credit Hour

(Slashed with BSCI 60144) Directed readings in cell and molecular biology from the primary and review literature will be presented and discussed by the students.

Prerequisite: Doctoral standing.

Corequisite: BSCI 70143.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BSCI 70146 DEVELOPMENTAL BIOLOGY 3 Credit Hours

(Slashed with BSCI 40146 and BSCI 50146) Fundamental concepts and paradigms of development as exemplified by major model organisms.

Examines our modern understanding of the molecular, cellular and genetic basis of developmental biology.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70147 DEVELOPMENTAL NEUROBIOLOGY 3 Credit Hours

(Slashed with BSCI 40147 and BSCI 50147) Covers fundamental principles of developmental neurobiology, including molecular and cellular processes involved in the formation of the vertebrate central nervous system.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70148 PRINCIPLES OF INFECTIOUS DISEASE 3 Credit Hours

(Slashed with BSCI 40148 and BSCI 50148) Basic principles of infectious disease with emphasis on major human pathogens, including protozoa, bacteria and viruses. Topics include infection establishment, spread within the host, pathology, immunity and host behavior.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70150 MOLECULAR MECHANISMS OF DISEASE: CANCER 3 Credit Hours

(Slashed with BSCI 40150 and BSCI 50150) Explores the current understanding of molecular and cellular mechanisms of disease processes, including new technologies and modern strategies at the forefront of future biomedical research. Emphasis on a review of primary literature.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70151 MECHANISMS OF DISEASE: OBESITY AND RELATED METABOLIC DISEASES 3 Credit Hours

(Slashed with BSCI 40151 and BSCI 50151) Addresses obesity from multiple angles, including health and disease process, underlying physiology and cell and molecular biology and the role of behavior. Emphasis on a review of primary literature to discuss obesity causes, consequences and treatments.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70152 MOLECULAR MECHANISMS OF DISEASE: NEUROLOGICAL DISORDERS 3 Credit Hours

(Slashed with BSCI 40152 and BSCI 50152) Major concepts and theoretical principles underlying neurological disorders.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70154 DIABETES AND CARDIOVASCULAR DISEASE 3 Credit Hours

(Slashed with BSCI 40154 and BSCI 50154) This course covers physiological aspects of diabetes and cardiovascular disease, including associated pathologies and therapies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70157 NEUROBIOLOGY OF DRUG ADDICTION 3 Credit Hours

(Slashed with BSCI 40157 and BSCI 50157) Introduction to neural structures, circuitry, and chemistry underlying drug addiction, main categories of drugs of abuse, and how brain cells and circuits are modified in response to addictive drugs.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70158 MOLECULAR BIOLOGY 3 Credit Hours

(Slashed with BSCI 40158 and BSCI 50158) Molecular genetics, DNA and RNA structure, chromosomes, DNA replication and repair, transcription and translation, regulation of gene expression, current concepts and technologies.

Prerequisite: BSCI 30156; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70159 MOLECULAR BIOLOGY LABORATORY 3 Credit Hours

(Slashed with BSCI 40159 and BSCI 50159) Experience in research methods for studying cellular and molecular processes in plant and animal systems.

Prerequisite: Doctoral standing; and special approval from instructor.

Schedule Type: Laboratory

Contact Hours: 9 lab

Grade Mode: Standard Letter

BSCI 70160 MARINE BIOLOGY 3 Credit Hours

(Slashed with BSCI 40160 and BSCI 50160) Natural history and ecology of marine organisms, with emphasis on life in coastal habitats. Lecture three hours weekly.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70162 SOIL BIOLOGY 3 Credit Hours

(Slashed with BSCI 40162 and BSCI 50162) The ecology and physiology of organisms that live in soil, including microbes, plants and animals. The physical and chemical aspects of soil are introduced to understand how organisms in soils impact nutrient cycles and ecosystem development.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70163 EVOLUTION 3 Credit Hours

(Slashed with BSCI 40163 and BSCI 50163) Discussion of the history of evolutionary theory, the evidence of evolution, the evolutionary forces and the products of those forces.

Prerequisite: BSCI 30156; and 4 credit hours of Biological Sciences (BSCI) courses; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70170 STREAM BIOLOGY 3 Credit Hours

(Slashed with BSCI 40170 and BSCI 50170) This course explores the physical, chemical and biological aspects of flowing water ecosystems. We cover topics across many levels of biological organization (individual organisms to communities) and broad geographic extents (habitat patches to global cycles), and process these ranges from simple to complex. The lecture covers basic concepts and the lab supports these concepts with field and lab measurements. The course culminates with independent projects that explore current issues related to human impacts on streams.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 70174 IMMUNOLOGY 3 Credit Hours

(Slashed with BSCI 40174 and BSCI 50174) This course covers innate and adaptive immune recognition and response, generation of diversity in antigen receptors of T cells and B cells, lymphocyte development and T cell activation and regulation pathways. It also covers immune resistance to infection, mechanisms of allergic responses, autoimmune disease, tissue and organ transplantation and cancer immunology.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70184 RESPONSIBLE CONDUCT IN RESEARCH AND TEACHING-BIOLOGICAL SCIENCES 2 Credit Hours

(Slashed with BSCI 60184) Educates biology graduate students in central aspects of the responsible and effective conduct of research and teaching. Topics include appropriate conduct in the laboratory, effective presentations and issues related to proposal and manuscript preparation and review.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Satisfactory/Unsatisfactory

BSCI 70191 SEMINAR IN BIOLOGY 1 Credit Hour

(Repeatable for credit) Departmental seminar required of all graduate students.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 70195 SPECIAL TOPICS IN BIOLOGY 1-3 Credit Hours

(Repeatable for credit) (Slashed with BSCI 40195 and BSCI 50195)

Prerequisite: Doctoral standing; and special approval of instructor.

Schedule Type: Laboratory, Lecture

Contact Hours: 1-3 lecture, 2-6 lab

Grade Mode: Standard Letter-IP

BSCI 70196 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) (Slashed with BSCI 60196) Individual investigation in biology.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

BSCI 70218 INTRODUCTION TO GENOMICS 3 Credit Hours

(Slashed with BSCI 40218 and BSCI 50218) This course provides an introduction to the structure, organization and function of genomes as well as technological approaches to sequencing and analyzing genomes. Students will explore the application of genomic tools to real-world problems, such as developing sustainable food and fuel supplies, improving disease treatment, understanding biodiversity and protecting the environment.

Prerequisite: Doctoral Standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70220 BIOINFORMATICS 3 Credit Hours

(Slashed with BSCI 40220, BSCI 50220 and BTEC 40220) Analysis of biological databases, including nucleic acid and protein sequence searching, multiple sequence alignment, protein classification, phylogenetic analysis, comparative genomics, proteomics, protein structure analysis.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70222 INVASION BIOLOGY 3 Credit Hours

(Slashed with BSCI 40222 and BSCI 50222) This course will provide an overview of the science of biological invasions, focusing on the processes of introduction, establishment, and spread. It will discuss both invasions of species from other countries as well as encroachment of native species. The economic and ecological impacts of both plant and animal invasive species, as well as ways of combating the harmful effects of invasions will be discussed.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70270 PLANT ECOLOGY 3 Credit Hours

(Slashed with BSCI 40270 and BSCI 50270) Develop knowledge of plant ecology. Learn about the abiotic and biotic effects of plant ecology. Differentiate among population ecology, metapopulation ecology and community ecology as it applies to plants. Use stage-structured population models to understand population dynamics. Learn about resource-ratio models as they apply to plant competition. Study the patterns and mechanisms of succession.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70272 PLANT ANATOMY 4 Credit Hours

(Slashed with BSCI 40272 and BSCI 50272) Development and structure of cells, tissues and tissue systems of seed plants. Both vegetative and reproductive structures of angiosperms are emphasized.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 70274 PLANT COMMUNITIES OF OHIO 3 Credit Hours

(Slashed with BSCI 40274 and BSCI 50274) Designed to familiarize students with the range of plant communities within Ohio by relating plant identification to biological, hydrological, geological, and climatic forces.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70356 EXPLORING MYSTERIES OF BIODIVERSITY 3 Credit Hours

(Slashed with BSCI 40356 and BSCI 50356) This course explores modern issues and mysteries surrounding the study of biodiversity using a conservation-based framework. Among course topics are characterizing biodiversity, searching for new and missing species, hidden/cryptic species, studying secretive species, management of endangered species, species reintroductions, Lazarus ecology (i.e., rediscovering species presumed extinct), resurrection ecology (i.e., bringing back ancient species), effects of human conflict on biodiversity and cryptozoology. Major issues, methodology (techniques/approaches) and ethics are explored across all course topics and include discussion of ecological, evolutionary, behavioral, genetic and reproductive aspects.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70360 ICHTHYOLOGY 4 Credit Hours

(Slashed with BSCI 40360 and BSCI 50360) Basic biology, natural history, behavior and ecology of the fishes.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 70363 MICROBIAL ECOLOGY 3 Credit Hours

(Slashed with BSCI 40363 and BSCI 50363) Microbial interactions with their biotic and abiotic environment; control of distribution and physiological activities; emphasis on bacteria in aquatic systems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70364 LIMNOLOGY 3 Credit Hours

(Slashed with BSCI 40364 and BSCI 50364) The study of the principles of aquatic ecology with emphasis on lakes and reservoirs.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70365 FIELD METHODS IN ORNITHOLOGY 3 Credit Hours

(Slashed with BSCI 40365 and BSCI 50365) Habitat-based survey of Ohio birds. Field-based lectures and activities cover location, observation and identification of birds and their songs, as well as bird ecology and behavior.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 70368 WETLAND ECOLOGY AND MANAGEMENT 4 Credit Hours

(Slashed with BSCI 40368 and BSCI 50368) Lecture, laboratory and field study of the principles of wetland ecology, including adaptations of the biota to environmental conditions, comparison among different wetland habitat types and habitat management.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 70370 ECOLOGICAL AND EVOLUTIONARY GENETICS 2 Credit Hours

(Slashed with BSCI 60370) Genetic and genomic approaches to studying ecology and evolution in populations and communities.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 70371 EVOLUTIONARY BIOLOGY 2 Credit Hours

(Slashed with BSCI 60371) Theoretical and experimental approaches to studying evolution from genes to populations and communities.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 70372 COMMUNITIES AND ECOSYSTEMS 2 Credit Hours

(Slashed with BSCI 60372) Theory and experimental approaches to studying community and ecosystem ecology.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 70373 POPULATION AND COMMUNITY ECOLOGY 2 Credit Hours

(Slashed with BSCI 60373) Theory and experimental approaches to studying population and community ecology.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 70374 CONSERVATION BIOLOGY 4 Credit Hours

(Slashed with BSCI 40374 and BSCI 50374) Provides a critical analysis of the factors that threaten biological diversity in the biosphere and the consequences on biological processes and quality of life.

Prerequisite: BSCI 30360; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BSCI 70375 ENVIRONMENTAL BIOLOGY AND MANAGEMENT 4 Credit Hours

(Slashed with BSCI 40375 and BSCI 50375) Introduction to current concepts in applied ecology and ecosystem management. Students will learn aspects of ecosystem management and restoration including: 1) how environmental factors affect organism survival and ecosystem structure, 2) how human impacts such as pollution, habitat fragmentation, introduction of invasive species affect ecosystems, and 3) the use of ecological principles and methods to restore and manage ecosystems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BSCI 70376 TROPICAL FIELD BIOLOGY AND CONSERVATION 5 Credit Hours

(Slashed with BSCI 40376 and BSCI 50376) Introduction to major issues in tropical ecology and conservation including the threats to the biological diversity of tropical ecosystems resulting from human activities. Students learn how to apply modern field-observation techniques to generate and test problem-solving hypotheses.

Prerequisite: Doctoral standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 6 lab

Grade Mode: Standard Letter

BSCI 70377 PREPARATION FOR FIELD COURSE TO SOUTH AFRICA 1 Credit Hour

(Slashed with BSCI 40377 and BSCI 50377) Introduction to major issues in field ecology and conservation in South Africa, including the threats to the biological diversity of subtropical ecosystems resulting from human activities. Students learn how to apply modern field-observation techniques to generate and test problem-solving hypotheses. Three major biomes in South Africa will be studied: the savanna, the fynbos (macchia) and Succulent Karoo (= Cape Floral Kingdom.) Lectures on the geography and history of South Africa, as well as introductions to the major South African biomes will be covered. Students will design field projects targeted to South African biomes.

Prerequisite: Doctoral Standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BSCI 70378 FIELD COURSE TO SOUTH AFRICA 4 Credit Hours

(Slashed with BSCI 40378 and BSCI 50378) This course covers all steps of the development and implementation of field-based research in South African environments, including design and analysis. Students write a report, present their research, apply data management and statistical tests appropriate for field courses (including contingency tables, basic t-tests, ANOVA and regression techniques) and develop scientific graphs and figures.

Prerequisite: BSCI 70377; and doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 6 lab

Grade Mode: Standard Letter

BSCI 70380 BIOGEOCHEMISTRY 3 Credit Hours

(Slashed with BSCI 40380, BSCI 50380, ESCI 40380 and ESCI 50380) This course explores the chemical, physical, geological and biological processes and reactions that shape the world around us, and provides tools for understanding human alterations to global systems. Throughout this course, students explore elemental cycles of diverse terrestrial and aquatic ecosystems, as well as assess how humans have drastically altered these elemental cycles on a global scale and the implications of these changes for biological systems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70385 CURRENT TOPICS IN NEUROSCIENCE 3 Credit Hours

(Slashed with BSCI 40385, BSCI 50385 and NEUR 40385) This is a discussion- and readings-based course that focuses on cellular and molecular mechanisms underpinning functions of the central nervous system. Topics covered include synaptic plasticity; neuron-glia interactions; gene-environment interactions involved in learning, memory and disease; big data in neuroscience; and more. During this course, students develop knowledge and understanding of communication between brain cells; how gene-environment interactions impact learning and memory, behavior and disease; and modern techniques used in neuroscience research. Students read, summarize and discuss primary research papers in the context of neuroscience-related topics.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70391 SEMINAR IN ECOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BSCI 60391) Seminar on topics in animal and plant ecology. Credits earned may be applied to degree if department approves.

Prerequisite: Doctoral standing; and special approval of instructor.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 70429 NEURAL CONTROL OF REPRODUCTIVE FUNCTION 2 Credit Hours

(Slashed with BSCI 40429, BSCI 50429 and NEUR 40429) Course explores the role of the brain in regulating functions that are essential to ensure successful reproduction. Topics covered include an overview of the endocrine and neuroendocrine systems involved in reproduction, as well as regulation of puberty, fertility, pregnancy and lactation. The course also explores disorders, such as polycystic ovary syndrome, affecting the central regulation of reproduction.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BSCI 70431 NEUROENDOCRINOLOGY 3 Credit Hours

(Slashed with BSCI 40431 and BSCI 50431) This course is an introduction to neuroendocrinology. There will be a focus on the major sources of neurohormones, the different classes of neurohormones, as well as how neurohormones are regulated, how they signal, and how they function. This course will integrate aspects of endocrinology, neuroscience, and physiology. After completion of this course students should have a basic understanding of the various neuroendocrine messengers and how they function.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70432 ENDOCRINOLOGY 3 Credit Hours

(Slashed with BSCI 40432 and BSCI 50432) Principles of endocrine regulation of physiological and metabolic processes. Morphological and functional interrelationships between systems.

Prerequisite: BSCI 40430; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70450 BIOLOGICAL CLOCKS 3 Credit Hours

(Slashed with BSCI 40450 and BSCI 50450) Topics covered include the characteristics of biological clocks; their ecology, molecular biology and neurobiology; the function and organization of sleep; and the medical implications of biological rhythmicity.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70460 ADVANCED HUMAN PHYSIOLOGY 3 Credit Hours

(Slashed with BSCI 40460 and BSCI 50460) Major concepts and theoretical principles of human physiology, including nervous, endocrine, cardiovascular, respiratory, renal, gastrointestinal and reproductive systems.

Prerequisite: Doctoral standing.

Corequisite: BSCI 70462.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70462 ADVANCED HUMAN PHYSIOLOGY: READINGS AND CASE STUDIES 1 Credit Hour

(Slashed with BSCI 40462 and BSCI 50462) Designed to complement the lecture course in Advanced Human Physiology. Students will read primary literature in physiology and work independently and in groups to apply their knowledge to solving case studies.

Prerequisite: Doctoral standing.

Corequisite: BSCI 70460.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BSCI 70463 MEDICAL BIOTECHNOLOGY 3 Credit Hours

(Slashed with BSCI 40463, BSCI 50463 and BTEC 40463) Medical Biotechnology provides a basic understanding of how living cells and cellular materials can be used for medical applications, particularly in the diagnosis and therapy of human diseases.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70466 MEDICAL AND VETERINARY ENTOMOLOGY 3 Credit Hours

(Slashed with BSCI 40466 and BSCI 50466) This course covers the ecology of flies, lice, ticks, spiders, and other arthropods with a medical or veterinary importance. The course will consist of lectures and discussions on topics including evolutionary adaptations and lifecycles, allergic responses, disease transmission, forensic entomology, entomophobia, veterinary pests, and pest control techniques.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70491 SEMINAR IN PHYSIOLOGY 1 Credit Hour

(Repeatable for credit)(Slashed with BSCI 60491) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval of instructor.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 70515 ANIMAL BEHAVIOR 3 Credit Hours

(Slashed with BSCI 40515 and BSCI 50515) Explores the evolution of various animal behaviors; functions they might serve; and interplay among the social, ecological and physiological mechanisms that regulate their occurrence.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70517 MEDICAL HISTOLOGY 3 Credit Hours

(Slashed with BSCI 40517 and BSCI 50517) Study of the microscopic and submicroscopic structure of the human body in relation to function.

Prerequisite: 4 credit hours of Biological Sciences (BSCI) courses; and doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 70519 HORMONES AND BEHAVIOR 3 Credit Hours

(Slashed with BSCI 40519 and BSCI 50519) Current concepts of hormone and behavior interactions across species.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70525 WILDLIFE RESOURCES 3 Credit Hours

(Slashed with BSCI 40525 and BSCI 50525) Ecological parameters are discussed relative to the preservation and management of wild animal populations. Aesthetic economic and environmental values are discussed. Lecture three hours weekly.

Prerequisite: 4 hours of Biology; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70556 VERTEBRATE ZOOLOGY 4 Credit Hours

(Slashed with BSCI 40556 and BSCI 50556) Field approach to identification and natural history of all Ohio vertebrates.

Prerequisite: 4 credit hours of Biological Sciences (BSCI) courses; and doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

BSCI 70558 MAMMALOLOGY 3 Credit Hours

(Slashed with BSCI 40558 and BSCI 50558) This course will explore the biology of mammals. The course is organized into three sections. Section 1 will define what a mammal is and explore their origin, evolution, and modern distribution. Section 2 will survey modern mammal taxonomic diversity. Section 3 will explore the environmental physiology and various ecological roles that mammals play using specific case studies of mammalian ecological interactions in the world's major biomes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 70560 HERPETOLOGY 3 Credit Hours

(Slashed with BSCI 40560 and BSCI 50560) This course will explore the biology of amphibians and reptiles. The course is organized into three sections. Section 1 we will explore their origin, evolution, and modern diversity of amphibians and reptiles (Yes, you will be required to memorize a whole mess of taxonomic names!). Section 2 will survey various aspects of the biology of amphibians and reptiles. Section 3 will explore the various aspects of the ecology of amphibians and reptiles, and examine a few critical topics in amphibian and reptile conservation.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 80107 REPRODUCIBLE QUANTITATIVE METHODS FOR ECOLOGICAL DATA 4 Credit Hours

(Slashed with BSCI 60107) Using real, data driven examples from ecology and the environmental sciences, this course walks students through the process of scientific analysis and communication in a new, open, technologically enabled framework, and place technical skills in the context of reproducible research philosophy, ethics and regulations. Topics include data management and metadata, reproducible programming, and data visualization.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

BSCI 80110 CAREER AND PROFESSIONAL SKILLS FOR LIFE SCIENTISTS 2 Credit Hours

(Cross-listed with BMS 80110)(Slashed with BMS 60110 and BSCI 60110)

This course helps prepare graduate students for advanced careers in science. Students learn about a variety of possible careers, prepare application materials and develop their professional oral and writing skills.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Satisfactory/Unsatisfactory

BSCI 80198 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed candidacy examination.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Special approval; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 80200 FOUNDATIONS OF NEUROSCIENCE 3 Credit Hours

(Cross-listed with BMS 80200)(Slashed with BMS 60200 and BSCI 60200)

This is a graduate-level introductory neuroscience course that will survey aspects of molecular and cellular neuroscience, the biophysics of the nervous system, basic neuroanatomy, and the homeostatic regulation of the periphery. After completion of this course students should have an understanding of how cells of the nervous system work, how these cells interact with homeostatic systems important to the regulation of peripheral physiology and behavior, and the basic neuroanatomy of these regulatory systems, including major neurotransmitter and neuroendocrine systems. Upon completion of this course, students should be prepared for advanced neuroscience coursework.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BSCI 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: BSCI 80199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BSCI 80462 NEUROBIOLOGY: SYSTEMS AND BEHAVIOR 4 Credit Hours

(Cross-listed with BMS 70462)(Slashed with BMS 60462 and BSCI 60462)

Provides broad coverage of the parts of the central nervous systems and how they integrate sensory information, drive motor function and regulate behavior.

Prerequisite: BMS 60729 or BMS 70729; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BSCI 80630 ADVANCED WRITING IN THE BIOLOGICAL SCIENCES 2 Credit Hours

(Slashed with BSCI 60630) Graduate students will track progress on a substantive writing task (e.g., thesis, dissertation, or manuscript) and complete exercises to enhance their capacity to communicate scientific findings in written formats and overcome barriers to productive writing habits. Students who do not have a specific writing project will work with the instructor to identify a project that aligns with their scholarly development and career goals, including but not limited to grant proposals, fellowship applications, literature review articles, research reports, etc. Students will pass the course by demonstrating consistent participation through attendance, submission of reflections on writing progress, and submission of short-term, skills based writing activities.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture, 0 lab, 0 other

Grade Mode: Satisfactory/Unsatisfactory

Clinical Laboratory Sciences (CLS)**CLS 49010 CLINICAL MICROBIOLOGY: THEORY 4 Credit Hours**

Theoretical consideration of laboratory isolation, cultivation, identification and characterization of pathogenic microorganisms.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 8 other

Grade Mode: Standard Letter-IP

CLS 49011 CLINICAL MICROBIOLOGY: APPLICATIONS 4 Credit Hours

Applied and practical considerations of theoretical aspects of laboratory isolation, cultivation, identification and characterization of pathogenic microorganisms.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 8 other

Grade Mode: Standard Letter-IP

CLS 49012 CLINICAL IMMUNOLOGY: THEORY 1 Credit Hour

Theoretical considerations of laboratory practices involving quantitation and detection of antigens and antibodies and the significance of these findings in pathological states.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

CLS 49013 CLINICAL IMMUNOLOGY: APPLICATIONS 1 Credit Hour

Applied and practical consideration of laboratory practices in immunology and serology relating to diagnosis of disease states.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

CLS 49014 CLINICAL MYCOLOGY: THEORY AND APPLICATIONS 1 Credit Hour

Theoretical, applied and practical consideration of the isolation, identification and characterization of pathogenic fungi and their relation to human disease states.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

CLS 49015 CLINICAL PARASITOLOGY: THEORY AND APPLICATIONS 1 Credit Hour

Theoretical, applied and practical considerations of the isolation identification and characterization of human parasites and their relations to pathologic conditions.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

CLS 49020 CLINICAL CHEMISTRY: THEORY 4 Credit Hours

Theoretical considerations of the principles of clinical chemistry relating to the identification and quantitation of biologically important substances in blood and other body fluids.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 8 other

Grade Mode: Standard Letter-IP

CLS 49021 CLINICAL CHEMISTRY: APPLICATIONS 3 Credit Hours

Applied and practical considerations of clinical chemistry principles relating to significant changes in body fluids as the result of pathologic conditions.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 6 other

Grade Mode: Standard Letter-IP

CLS 49022 URINALYSIS: THEORY 1 Credit Hour

Theoretical considerations of the physiological activities of the renal system together with laboratory principles of analysis of urine and other body fluids.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

CLS 49023 URINALYSIS: APPLICATIONS 1 Credit Hour

Applied and practical considerations of laboratory practices in urine and other body fluid analysis as aids in diagnosis of disease.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

CLS 49030 IMMUNOHEMATOLOGY: THEORY 2 Credit Hours

Theoretical consideration of laboratory procedures involved in blood grouping and typing; identification of blood group antigens and antibodies collection and preparation of blood for transfusion.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 4 other

Grade Mode: Standard Letter-IP

CLS 49031 IMMUNOHEMATOLOGY: APPLICATIONS 2 Credit Hours

Applied and practical consideration of laboratory methods for the administration of blood and its components.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 4 other

Grade Mode: Standard Letter-IP

CLS 49032 COAGULATION: THEORY AND APPLICATIONS 1 Credit Hour

Theoretical consideration of the coagulation mechanism and its relation to pathological states; identification of abnormalities and deficiencies.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

CLS 49033 CLINICAL HEMATOLOGY: THEORY 2 Credit Hours

Theoretical considerations of the development of formed elements; identification of marrow and blood cells; study of normal and abnormal cellular blood components.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 4 other

Grade Mode: Standard Letter-IP

CLS 49034 CLINICAL HEMATOLOGY: APPLICATIONS 2 Credit Hours

Applied and practical consideration of laboratory methods and procedures in identification and enumeration of normal and abnormal formed elements of blood.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 4 other

Grade Mode: Standard Letter-IP

CLS 49040 TOPICS IN LABORATORY MANAGEMENT 1 Credit Hour

Consideration of topics relating to safety, education, personnel, budgeting, scheduling and medical legal problems. Repeatable for a total of 4 hours.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

CLS 49095 SPECIAL TOPICS IN MEDICAL TECHNOLOGY 1-4 Credit Hours

(Repeatable for a maximum of 4 credit hours) Topical consideration of special techniques encountered in nuclear medicine, cytology, cytogenetics, virology, toxicology and special instrumentation.

Prerequisite: Medical Laboratory Science major.

Schedule Type: Clinical Laboratory

Contact Hours: 2-8 other

Grade Mode: Standard Letter-IP

Department of Chemistry and Biochemistry

Chemistry (CHEM)

CHEM 00020 INTRODUCTION TO CHEMISTRY 2 Credit Hours

Problem-based introduction to the fundamentals of chemistry including significant figures, unit conversions, measurement, structure of matter, energy, composition of matter, atomic structure, the periodic table, introduction to bonding, and the formulas and names of both ionic and covalent compounds. Course does not count toward graduation.

Prerequisite: Math ACT score of 18; or ALEKS math assessment score of 45; or minimum C grade in any MATH course.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 10030 CHEMISTRY IN OUR WORLD (KBS) 3 Credit Hours

A course for non-science majors that utilizes environmental and consumer topics to introduce chemical principles and develop critical-thinking skills.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

CHEM 10031 CHEMISTRY IN OUR WORLD LABORATORY (KBS) (KLAB) 1 Credit Hour

Discovery-based experiments to introduce chemical principles and develop critical-thinking skills. A course for non-science majors; includes chemistry that is related to environmental and consumer issues.

Pre/corequisite: CHEM 10030.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, Transfer Module Natural Sciences, TAG Natural Science Lab

CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) 3 Credit Hours

Basic concepts of chemistry (including atomic structure, chemical bonding and reactions) necessary for courses in elementary organic chemistry and physiological chemistry. Students may only receive credit toward graduation for one of the following: CHEM 10050; or CHEM 10060 and CHEM 10061; or CHEM 10970 and CHEM 10971.

Prerequisite: Minimum 16 ACT math score or MATH 10675 or MATH 11009 or MATH 11010 or MATH 11012 or MATH 12002 or MATH 12011 or MATH 12021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

CHEM 10055 MOLECULES OF LIFE (KBS) 3 Credit Hours

An integrated introduction to molecular systems and their participation in the processes of life.

Pre/corequisite: MATH 10040 or MATH 10041 or MATH 10772 or MATH 10775 with a minimum C grade or any course between MATH 11009 to MATH 49998; or minimum 55 ALEKS math score; or minimum 22 ACT math score; or minimum 530 SAT math score.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences

CHEM 10058 GENERAL CHEMISTRY FOR LIFE SCIENCES I (KBS) 4 Credit Hours

This is a chemistry course for non-chemistry majors and those who are not on the premed/pre-pharm track. It focuses on fundamental concepts and the development of problem-solving strategies. Students are introduced to a variety of concepts in modern chemistry, emphasizing stoichiometry, introduction to chemical reactions, thermochemistry, periodicity, molecular structure, chemical bonding and behavior of gases. Classroom time is divided into lectures, discussions and problem-solving activities to enable students to develop foundational knowledge. Students may only receive credit toward graduation for one of the following courses: CHEM 10050 or CHEM 10055 or CHEM 10058 or CHEM 10060 or CHEM 10970 or CHEM 11060.

Prerequisite: MATH 10675 or MATH 10772 with a minimum C grade; or a pre/co-requisite of MATH 10775 or MATH 11009 or MATH 11010 and minimum 45 ALEKS math score.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences

CHEM 10059 GENERAL CHEMISTRY FOR LIFE SCIENCES II 4 Credit Hours

Continuation of CHEM 10058, emphasizing intermolecular forces, properties of mixtures, kinetics, equilibrium, main group chemistry, acid-base chemistry, thermodynamics and electrochemistry. Students may only receive credit toward graduation for one of the following courses: CHEM 10050 or CHEM 10055 or CHEM 10059 or CHEM 10061 or CHEM 10971.

Prerequisite: Minimum C grade in the following courses: CHEM 10058 or CHEM 10060 or CHEM 10970 or CHEM 11060.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CHEM 10060 GENERAL CHEMISTRY I (KBS) 4 Credit Hours

(Equivalent to CHEM 11060) This is a college-level chemistry course for science majors, focusing on fundamental concepts and the development of problem-solving strategies and critical thinking. Students are introduced to a variety of concepts of modern chemistry, emphasizing stoichiometry, introduction to chemical reactions, thermochemistry, atomic structure, periodicity, molecular structure, chemical bonding and behavior of gases. Classroom time is divided into lectures, discussions and problem-solving activities to enable students to develop both foundational knowledge and analytical skills. Students may only receive credit toward graduation for one of the following courses: CHEM 10050 or CHEM 10055 or CHEM 10058 or CHEM 10060 or CHEM 10970 or CHEM 11060.

Prerequisite: Minimum C grade in the following courses: MATH 10675 or MATH 10772 or MATH 10775 or MATH 11009 or MATH 11010; or minimum 67 ALEKS math score; or minimum 27 ACT math score.

Pre/corequisite: MATH 11022 or MATH 12002 or MATH 12021.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, TAG Science

CHEM 10061 GENERAL CHEMISTRY II (KBS) 4 Credit Hours

Continuation of CHEM 10060, emphasizing intermolecular forces, properties of mixtures, main group chemistry, kinetics, equilibrium, acid-base chemistry, thermodynamics and electrochemistry. Students may only receive credit toward graduation for one of the following courses: CHEM 10050 or CHEM 10055 or CHEM 10059 or CHEM 10061 or CHEM 10971.

Prerequisite: Minimum C grade in the following courses: CHEM 10060 or CHEM 10970 or CHEM 11060.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, TAG Science

CHEM 10062 GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB) 1 Credit Hour

Laboratory covering pertinent aspects of CHEM 10060.

Pre/corequisite: CHEM 10058 or CHEM 10060 or CHEM 10970 or CHEM 11060.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science

CHEM 10063 GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB) 1 Credit Hour

Laboratory covering pertinent aspects of CHEM 10061, including qualitative analysis.

Prerequisite: CHEM 10062.

Pre/corequisite: CHEM 10059 or CHEM 10061 or CHEM 10971.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science

CHEM 10970 HONORS GENERAL CHEMISTRY I (KBS) 4 Credit Hours

Rigorous general chemistry course for qualified students. Stoichiometry, equilibrium, thermochemistry, atomic structure and chemical bonding, descriptive inorganic and nuclear chemistry.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences

CHEM 10971 HONORS GENERAL CHEMISTRY II (KBS) 4 Credit Hours

A continuation of CHEM 10970. Topics include properties of mixtures, properties of the elements, periodic patterns, organic compounds, kinetics, equilibrium, thermodynamics and electrochemistry.

Prerequisite: Minimum C grade in CHEM 10970.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences

CHEM 11060 GENERAL CHEMISTRY I BOOST (KBS) 6 Credit Hours

(Equivalent to CHEM 10060) This is a college-level chemistry course for science majors, focusing on fundamental concepts and the development of problem-solving strategies and critical thinking. Students are introduced to a variety of concepts of modern chemistry, emphasizing stoichiometry, introduction to chemical reactions, thermochemistry, atomic structure, periodicity, molecular structure, chemical bonding and behavior of gases. This course includes five lecture sessions and one recitation session. Classroom time is divided into lectures, discussions and problem-solving activities to enable students to develop both foundational knowledge and analytical skills. Recitation sessions include problem solving with an emphasis on developing core skills. The endpoint of this course is identical to that of CHEM 10060. Students may only receive credit toward graduation for one of the following courses: CHEM 10050 or CHEM 10055 or CHEM 10060 or CHEM 10970 or CHEM 11060.

Prerequisite: MATH 10675 or MATH 10772 with a minimum C grade; or minimum 45 ALEKS math score and a pre/co-requisite of MATH 10775 or MATH 11009 or MATH 11010.

Schedule Type: Lecture, Recitation

Contact Hours: 5 lecture, 1 other

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences

CHEM 20095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Selected topics in chemistry.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 20098 INTRODUCTION TO CHEMICAL RESEARCH (ELR) 1-3 Credit Hours

Research experience for freshmen and sophomores. Registration requires prior approval of the research director. Does not count toward the electives for the BS or BA chemistry degree. A written report is required.

Prerequisite: Minimum overall 2.500 GPA in Chemistry and special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

CHEM 20481 BASIC ORGANIC CHEMISTRY I 4 Credit Hours

Survey of the structure, preparation and reactions (including mechanisms) of organic compounds emphasizing the chemistry of biologically important functional groups. Students may only receive credit toward graduation for one of the following courses: CHEM 10055 or CHEM 20481 or CHEM 30481.

Prerequisite: Minimum C grade in the following courses: CHEM 10059 or CHEM 10061 or CHEM 10971.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Science

CHEM 20482 BASIC ORGANIC CHEMISTRY II 2 Credit Hours

Continuation of CHEM 20481, emphasizing the chemistry of functional groups prevalent in biological chemistry. Students may only receive credit toward graduation for one of the following courses: CHEM 10055 or CHEM 20482 or CHEM 30482.

Prerequisite: Minimum C grade in CHEM 20481.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

Attributes: TAG Science

CHEM 30051 CAREER PATHWAYS IN CHEMISTRY 1 Credit Hour

Designed to introduce students to the wide range of career pathways available in chemistry. Students learn different strategies for identifying and pursuing career opportunities, and develop their communication skills through writing assignments and oral presentations.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

CHEM 30105 ANALYTICAL CHEMISTRY I 3 Credit Hours

Covers the fundamental theory, experimental methods, and applications of analytical chemistry principles in chemistry as well as other related disciplines such as life sciences and environmental science. It covers analytical measurements, experimental error, statistics, chemical equilibrium and titration, spectrometry as well as analytical separation techniques.

Prerequisite: CHEM 10061 or CHEM 10971.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 30106 ANALYTICAL CHEMISTRY II 2 Credit Hours

Covers the theoretical basis and experimental methods of analytical chemistry not considered in Analytical Chemistry I (CHEM 30105), such as noise reduction, advanced chemical equilibria and titrations, electrochemistry, atomic spectroscopy, instrumental design, and sample preparation.

Prerequisite: CHEM 30105.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 30107 ANALYTICAL CHEMISTRY LABORATORY I (WIC) 1 Credit Hour

Fundamental laboratory class for analytical chemistry. Provides hands-on experience to students on the subjects including data treatment, volumetric analysis, spectrophotometry, separation techniques and mass spectroscopy.

Prerequisite: CHEM 10063.

Pre/corequisite: CHEM 30105.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

CHEM 30108 ANALYTICAL CHEMISTRY LABORATORY II (WIC) 2 Credit Hours

Advanced analytical chemistry laboratory class which covers a broad range of modern analytical techniques, including ion-selective electrodes, voltammetry, atomic spectroscopy, mass-spectrometry and capillary electrophoresis. Unlike Analytical Chemistry Laboratory I (CHEM 30107) this class focuses on forensic rather than bioanalytical applications.

Prerequisite: CHEM 30105.

Pre/corequisite: CHEM 30107.

Schedule Type: Laboratory

Contact Hours: 6 lab

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

CHEM 30284 INTRODUCTORY BIOLOGICAL CHEMISTRY 4 Credit Hours

Chemistry and metabolism of biochemically important compounds; nature of enzyme action; metabolic regulation and bioenergetics.

Prerequisite: CHEM 20481; or CHEM 30481 and CHEM 30482.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CHEM 30301 INORGANIC CHEMISTRY I 3 Credit Hours

Chemistry of hydrogen, ions in aqueous solution, redox reactions, coordination complexes: d-block chemistry, crystal field model, electronic spectra and magnetism, introduction to organometallic chemistry, periodic trends for p-block elements.

Prerequisite: CHEM 10061 or CHEM 10971.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 30475 ORGANIC CHEMISTRY LABORATORY I (ELR) 1 Credit Hour

Practical experience in organic laboratory techniques on both micro- and macroscale: physical methods for purification and characterization of organic compounds, introduction to organic reactions.

Prerequisite: CHEM 10063.

Pre/corequisite: CHEM 20481 or 30481.

Schedule Type: Laboratory

Contact Hours: 1 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, TAG Science

CHEM 30476 ORGANIC CHEMISTRY LABORATORY II 1 Credit Hour

Continuation of CHEM 30475, involving multi-step organic experiments that utilize techniques introduced in CHEM 30475.

Prerequisite: CHEM 30475.

Pre/corequisite: CHEM 20482 or 30482.

Schedule Type: Laboratory

Contact Hours: 1 lab

Grade Mode: Standard Letter

Attributes: TAG Science

CHEM 30481 ORGANIC CHEMISTRY I 4 Credit Hours

Introduction to organic chemistry from structural, mechanistic and synthetic viewpoints with an emphasis on the chemistry of biologically relevant functional groups. Students may only receive credit toward graduation for one of the following courses: CHEM 10055 or CHEM 20481 or CHEM 30481.

Prerequisite: CHEM 10061 or CHEM 10971 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Science

CHEM 30482 ORGANIC CHEMISTRY II 4 Credit Hours

Continuation of CHEM 30481; organic chemistry from mechanistic and synthetic viewpoints; IR and NMR spectroscopy; mass spectrometry. Students may only receive credit toward graduation for one of the following courses: CHEM 10055 or CHEM 20482 or CHEM 30482.

Prerequisite: CHEM 30481 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Science

CHEM 40092 INTERNSHIP IN CHEMISTRY AND BIOCHEMISTRY (ELR) 1-9 Credit Hours

(Repeatable for credit) Workplace experience in chemistry or biochemistry relevant to a student's career objectives. Includes career advising and job search strategies. Comprehensive written report and presentation of activities required after completion of internship.

Prerequisite: Junior standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-27 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

CHEM 40093 VARIABLE TITLE WORKSHOP IN CHEMISTRY 1-6 Credit Hours

(Repeatable for credit) Variable titled workshop in chemistry.

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

CHEM 40099 SENIOR HONORS THESIS (ELR) 1-9 Credit Hours

(Repeatable for credit) For departmental honors, may be started summer prior to senior year. Register each semester during senior year. Minimum total 5 credit hours.

Prerequisite: Special approval.

Schedule Type: Project or Capstone

Contact Hours: 1-9 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

CHEM 40109 BIOANALYTICAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 50109 and CHEM 70109) Covers traditional as well as newly emerging topics in the field of bioanalytical chemistry. Provides an overview of the fundamental biological targets for bioanalytical assays, such as lipids, peptides, proteins, nucleic acids and cells. Briefly introduces traditional tools, such as chromatography, electrophoresis, mass spectrometry, fluorescence techniques, immunoassays, and biosensors. Discusses approaches most recently developed in the field, which include lab-on-a-chip and single molecule techniques.

Prerequisite: CHEM 30105.

Pre/corequisite: CHEM 30284 or CHEM 40245 or CHEM 40261.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40113 CHEMICAL SEPARATIONS 3 Credit Hours

(Cross-listed with CHEM 50113 and CHEM 70113) Theory, instrumentation and applications of chemical separations for chemical analysis with an emphasis on gas and liquid chromatography.

Prerequisite: CHEM 30106.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40115 APPLICATIONS OF SPECTROSCOPY AND IMAGING 3 Credit Hours

(Slashed with CHEM 50115 and CHEM 70115) This course covers the fundamentals of optics, recent developments in spectroscopy and microscopy and their applications in chemistry. Included are methods of optical microscope-based spectroscopy and imaging in relation to analytical chemistry, biochemistry and polymer chemistry research; such as principles and applications of fluorescence spectroscopy, atomic force microscopy, optical tweezer and patch clamp.

Prerequisite: CHEM 30482.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40195 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 50195 and CHEM 70195) (Repeatable for credit) In depth examination of current topics in analytical chemistry through guided study of literature and presentations.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 40245 BIOCHEMICAL FOUNDATIONS OF MEDICINE 4 Credit Hours

(Slashed with CHEM 50245) Chemistry and metabolism of biologically important compounds; enzyme catalysis; metabolic regulation, inborn and induced errors of metabolism. Does not count toward the B.S. Biochemistry major.

Prerequisite: CHEM 30481.

Pre/corequisite: CHEM 30482.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CHEM 40248 ADVANCED BIOLOGICAL CHEMISTRY 3 Credit Hours
(Slashed with CHEM 50248 and CHEM 70248) Supra-molecular structures of DNA, advanced topics in DNA replication, recombination, damage and repair; gene transcription, Pre-RNA processing, mRNA translation, post-translational modifications on proteins; protein folding, protein splicing, sorting of proteins in different parts of the cells, and protein turn-over; cell signaling and cell cycle; and genetic diseases and their therapies.

Prerequisite: CHEM 30284 or CHEM 40245.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40251 ADVANCED BIOLOGICAL CHEMISTRY LABORATORY (WIC) 2 Credit Hours

Practical experience in the characterization of biomolecules; recombinant DNA technology; electrophoretic separation of macromolecules, affinity purification; mass spectrometric approaches; protein folding; RNA structure, interactions and catalytic mechanisms.

Pre/corequisite: CHEM 40262.

Schedule Type: Laboratory

Contact Hours: 6 lab

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

CHEM 40261 BIOCHEMISTRY: BIOMOLECULE STRUCTURE AND FUNCTION 3 Credit Hours

(Slashed with CHEM 50261 and CHEM 70261) Introduction to biochemical principles regarding the structure and function of biomolecules including water, amino acids, proteins, carbohydrates and lipids; emphasis on enzymes, membranes and bioenergetics.

Prerequisite: CHEM 20481 or CHEM 30482.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40262 BIOCHEMISTRY: METABOLISM AND GENE EXPRESSION 3 Credit Hours

(Slashed with CHEM 50262 and CHEM 70262) Aspects of biochemistry focusing on information, chemical and energy flow, including: integration of metabolic pathways; DNA replication, repair, recombination and modification; transcription and translation; signal transduction, post-translational modification.

Prerequisite: CHEM 30284 OR CHEM 40261.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40263 PHYSICAL BIOCHEMISTRY 3 Credit Hours

(Slashed with CHEM 50263 and CHEM 70263) Principles and techniques of physical chemistry used in studying biomacromolecules and biological systems, spectroscopy, structure and properties of biological molecules.

Prerequisite: CHEM 40555 or CHEM 40567; and CHEM 30284 or CHEM 40245 or CHEM 40261.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40264 MEDICAL BIOCHEMISTRY 3 Credit Hours

(Slashed with CHEM 50264 and CHEM 70264) The course provides an in-depth exploration of the biochemical basis for disease and its application to clinical medicine with an emphasis on new discoveries and other advances.

Prerequisite: CHEM 40262 or BSCI 40143.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40295 SPECIAL TOPICS IN BIOCHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 50295 and CHEM 70295) (Repeatable for credit) In depth examination of current topics in biochemistry through guided study of literature and presentations.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 40302 INORGANIC CHEMISTRY II 3 Credit Hours

(Slashed with CHEM 50302) Physical techniques of inorganic chemistry, molecular structure and bonding, metallic and ionic solids, organometallic chemistry, homogeneous and heterogeneous catalysis; solid-state and materials chemistry, nanomaterials, nanoscience and nanotechnology; molecular symmetry, molecular orbital theory of polyatomic molecules and octahedral complexes, electronic spectra and reaction mechanisms of d-block complexes.

Prerequisite: CHEM 30301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40303 INORGANIC CHEMISTRY III 2 Credit Hours

(Slashed with CHEM 50303) Molecular symmetry, molecular orbital theory of polyatomic molecules and octahedral complexes, electronic spectra and reaction mechanisms of d-block complexes, periodic trends of Groups 1 and 2 and d-block, bioinorganic chemistry.

Prerequisite: CHEM 40302.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 40352 INORGANIC MATERIALS CHEMISTRY 3 Credit Hours

(Slashed with CHEM 50352 and CHEM 70352) Broad survey of the synthesis, properties, characterization and applications of inorganic materials.

Prerequisite: CHEM 40302.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40364 INTERMEDIATE INORGANIC CHEMISTRY LAB 1 Credit Hour

A laboratory course providing experience in the synthesis of significant inorganic compounds and the techniques of various experimental and spectroscopic methods and chromatographic separations.

Prerequisite: CHEM 40302.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

CHEM 40365 BIOLOGICAL INORGANIC CHEMISTRY 3 Credit Hours

(Slashed with CHEM 50365 and CHEM 70365) Physical methods, s-block metals, metal ion-induced folding, electron transfer proteins, oxidoreductases, substrate binding and activation by non-redox mechanisms, biomineralization, group-atom transfer and metals in medicine.

Prerequisite: CHEM 30301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40395 SPECIAL TOPICS IN INORGANIC CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 50395 and CHEM 70395) (Repeatable for credit) In depth examination of current topics in inorganic chemistry through guided study of literature and presentations.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 40451 ORGANIC MATERIALS CHEMISTRY 3 Credit Hours

(Slashed with CHEM 50451 and CHEM 70451) Broad survey of the synthesis, properties, characterization and applications of organic and polymeric materials.

Prerequisite: CHEM 30482.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40476 SPECTROSCOPIC IDENTIFICATION OF ORGANIC COMPOUNDS 2 Credit Hours

(Slashed with CHEM 50476 and CHEM 70476) Strategies for structural elucidation of organic compounds from analysis of infrared, proton and carbon NMR, and mass spectrometric data through lectures and problem solving.

Prerequisite: CHEM 30482.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 40477 INTERMEDIATE ORGANIC CHEMISTRY LABORATORY 1 Credit Hour

(Slashed with CHEM 50477) Continuation of CHEM 30476, including hands-on use of a high-field NMR spectrometer; single and multistep organic syntheses.

Prerequisite: CHEM 30476 and CHEM 40483.

Schedule Type: Laboratory

Contact Hours: 1 lab

Grade Mode: Standard Letter

CHEM 40483 INTERMEDIATE ORGANIC CHEMISTRY 2 Credit Hours

(Slashed with CHEM 50483 and CHEM 70483) Continuation of CHEM 30482; organic chemistry from mechanistic and synthetic viewpoints, including synthetic design, organotransition metal chemistry and free radical chemistry.

Prerequisite: CHEM 30482 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 40485 PHYSICAL ORGANIC CHEMISTRY 3 Credit Hours

(Slashed with CHEM 50485 and CHEM 70485) This course presents a modern view of organic chemistry through the study of organic reaction mechanisms, advanced chemical bonding theories, high-energy intermediates and reactivity patterns common to organic chemical reactions. Emphasis is placed on synthetic organic chemistry with a focus on chemical structure, reactivity, chemical kinetics, thermodynamics, physical and chemical behavior and reaction mechanisms. Central to these investigations is understanding the use of molecular spectroscopy and molecular modeling software as investigative tools. A specific goal of this course is to introduce students to concepts necessary to solving mechanistic organic problems encountered in the research laboratory. The course covers common organic reaction mechanisms, experimental techniques and theoretical approaches to understanding reaction mechanisms. All topics are approached from a structural and mechanistic perspective. Emphasis is also placed on the importance of organic chemistry in biochemical systems. Classroom time is divided into lectures, discussions and problem solving sessions to enable students to develop both advanced knowledge and problem solving skills in organic chemistry.

Prerequisite: Minimum C grade in CHEM 30482.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40495 SPECIAL TOPICS IN ORGANIC CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 50495 and CHEM 70495) (Repeatable for credit) In depth examination of current topics in organic chemistry through guided study of literature and presentations.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 40541 ADVANCED PHYSICAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 50541 and CHEM 70541) Covers basic materials of modern physical chemistry in two broad areas: thermodynamics and introductory quantum mechanics.

Prerequisite: CHEM 40556.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40555 PHYSICAL CHEMISTRY I 3 Credit Hours

(Slashed with CHEM 50555 and CHEM 70555) Fundamental concepts of physical chemistry, with example problems chosen emphasizing applications in chemistry and the biological sciences.

Prerequisite: Minimum C grade in CHEM 10061 or CHEM 10971; and a minimum C grade in MATH 12003; and PHY 23102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40556 PHYSICAL CHEMISTRY II 3 Credit Hours

(Slashed with CHEM 50556 and CHEM 70556) A continuation of CHEM 40555. Areas covered include quantum mechanics, atomic and molecular structure, spectroscopy, statistical mechanics, theories of reaction rates and the solid state.

Prerequisite: CHEM 40555 or PHY 45301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40557 PHYSICAL CHEMISTRY LABORATORY 2 Credit Hours
(Slashed with CHEM 50557 and CHEM 70557) Experiments in numerous areas of physical chemistry, including the interpretation and reporting of obtained experimental data, correlation of results with theory and an introduction to the computer treatment of data.

Prerequisite: CHEM 40556.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

CHEM 40559 NANOMATERIALS 3 Credit Hours

(Slashed with CHEM 50559 and CHEM 70559) Fundamental aspects of nanomaterials ranging from nanoparticles to three-dimensional (3D) nanostructures emphasizing their synthesis, chemistry and applications.

Prerequisite: CHEM 10061 or CHEM 10971 and; CHEM 40555 or CHEM 40567.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40563 QUANTUM CHEMISTRY 3 Credit Hours

(Slashed with CHEM 50563 and CHEM 70563) This course builds on the physical chemistry course sequence and introduces advanced topics of quantum mechanics and their applications in chemistry and towards understanding the electronic structure of atoms and molecules.

Prerequisite: CHEM 40556.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40564 COMPUTATIONAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 50564 and CHEM 70564) The course introduces the theoretical foundations and practical techniques of computational chemistry research.

Pre/corequisite: CHEM 40556 or CHEM 40567.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 40567 PHYSICAL CHEMISTRY FOR LIFE SCIENCES 4 Credit Hours

Traditional aspects of physical chemistry with minimal calculus treatment. Applications to the health sciences emphasized.

Prerequisite: Minimum C grade in CHEM 10061 or CHEM 10971; and MATH 12002 or MATH 12021.

Pre/corequisite: PHY 13002 or PHY 23102.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CHEM 40568 ELEMENTARY PHYSICAL CHEMISTRY LABORATORY 1 Credit Hour

Provides hands-on experience with calorimetry, viscosimetry and spectroscopic techniques.

Prerequisite: CHEM 40555 or CHEM 40567.

Schedule Type: Laboratory

Contact Hours: 1 lab

Grade Mode: Standard Letter

CHEM 40571 SURFACE CHEMISTRY 2 Credit Hours

(Slashed with CHEM 50571 and CHEM 70571) Treatment of basic principles and concepts in surface and colloid chemistry. Relationship to practical systems emphasized. Two hours lecture weekly.

Prerequisite: CHEM 40555 or CHEM 40567.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 40595 SPECIAL TOPICS IN PHYSICAL CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 50595 and CHEM 70595) (Repeatable for credit) In depth examination of current topics in physical chemistry through guided study of literature and presentations.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 40795 CURRENT TOPICS IN CHEMICAL EDUCATION 1-3 Credit Hours

(Slashed with CHEM 50795) (Repeatable for credit) Recent advances in chemical research, instrumentation and theory important to chemical educators.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Satisfactory/Unsatisfactory

CHEM 40796 INDIVIDUAL INVESTIGATION 1-8 Credit Hours

(Repeatable for credit) Registration requires prior approval of the research director. Written report required. Maximum of two hours may be applied to the four hour CHEM 40000 elective requirement for the chemistry concentration within the B.S. in Chemistry.

Prerequisite: Minimum 2.500 overall GPA in Chemistry; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-8 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CHEM 41010 BIOPHOTONICS 3 Credit Hours

(Slashed with CHEM 51010) (Cross-listed with BSCI 41110 and BSCI 51110 and PHY 41010 and PHY 51010) Interdisciplinary overview of the basics of biophotonics; application of biophotonic techniques to probe biological samples. Introduction to the foundations of optics and photonics and how the molecular structure of organic molecules translates into unique photonic properties and targeting in biological cells or tissue. Preparation of fluorescent materials, advanced spectroscopy and cell visualization using regular and confocal fluorescence microscopy.

Prerequisite: Special approval.

Schedule Type: Combined Lecture and Lab

Contact Hours: 1 lecture, 6 lab

Grade Mode: Standard Letter

CHEM 50093 VARIABLE TITLE WORKSHOP IN CHEMISTRY 1-6 Credit Hours

(Repeatable for credit) Variable titled workshop in chemistry.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

CHEM 50109 BIOANALYTICAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40109 and CHEM 70109) Covers traditional as well as newly emerging topics in the field of bioanalytical chemistry. The course will provide an overview of the fundamental biological targets for the bioanalytical assays, such as lipids, peptides, proteins, nucleic acids, and cells. The course will then briefly introduce traditional tools, such as chromatography, electrophoresis, mass spectrometry, fluorescence techniques, immunoassays, and biosensors. Finally, the course will discuss approaches most recently developed in the field, which include lab-on-a-chip and single molecule techniques.

Prerequisite: CHEM 30105; and graduate standing; and special approval.

Corequisite: CHEM 30284 or 40245 or 40261.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50113 CHEMICAL SEPARATIONS 3 Credit Hours

(Slashed with CHEM 40113 and CHEM 70113) Theory, instrumentation and applications of chemical separations for chemical analysis. Emphasis on gas and liquid chromatography.

Prerequisite: CHEM 30106; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50115 APPLICATIONS OF SPECTROSCOPY AND IMAGING 3 Credit Hours

(Slashed with CHEM 40115 and CHEM 70115) This course covers the fundamentals of optics, recent developments in spectroscopy and microscopy and their applications in chemistry. Included are methods of optical microscope-based spectroscopy and imaging in relation to analytical chemistry, biochemistry and polymer chemistry research; such as principles and applications of fluorescence spectroscopy, atomic force microscopy, optical tweezer and patch clamp.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50166 PRINCIPLES AND APPLICATIONS IN ANALYTICAL CHEMISTRY 2 Credit Hours

Survey of important principles and concepts and their application in Analytical Chemistry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 50195 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40195 and CHEM 70195) (Repeatable for credit) In depth examination of current topics in analytical chemistry through guided study of literature and presentations.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 50245 BIOCHEMICAL FOUNDATIONS OF MEDICINE 4 Credit Hours

(Slashed with CHEM 40245) Introduction to chemistry and metabolism of important compounds in biological systems; enzymes and characteristics of enzyme catalysis; regulation of metabolism at molecular, cellular and organism levels; inborn and induced errors of metabolism. Designed and scheduled for and priority given to students in integrated life sciences program.

Prerequisite: CHEM 30481; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CHEM 50248 ADVANCED BIOLOGICAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40248 and CHEM 70248) Supra-molecular structures of DNA, advanced topics in DNA replication, recombination, damage and repair; gene transcription, Pre-RNA processing, mRNA translation, post-translational modifications on proteins; protein folding, protein splicing, sorting of proteins in different parts of the cells, and protein turn-over; cell signaling and cell cycle; and genetic diseases and their therapies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50261 BIOCHEMISTRY: BIOMOLECULE STRUCTURE AND FUNCTION 3 Credit Hours

(Slashed with CHEM 40261 and CHEM 70261) Introduction to biochemical principles regarding the structure and function of biomolecules including water, amino acids, proteins, carbohydrates and lipids; emphases on enzymes, membranes and bioenergetics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50262 BIOCHEMISTRY: METABOLISM AND GENE EXPRESSION 3 Credit Hours

(Slashed with CHEM 40262 and CHEM 70262) Aspects of biochemistry focusing on information, chemical and energy flow, including: integration of metabolic pathways; DNA replication, repair, recombination and modification; transcription and translation; signal transduction, and post-translational modification.

Prerequisite: CHEM 50261 or CHEM 70261; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50263 PHYSICAL BIOCHEMISTRY 3 Credit Hours

(Slashed with CHEM 40263 and CHEM 70263) Principles and techniques of physical chemistry used in studying biomacromolecules and biological systems. Topics covered are thermodynamics, spectroscopy, structure and properties of biological molecules.

Prerequisite: Graduate standing in Chemistry.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50264 MEDICAL BIOCHEMISTRY 3 Credit Hours

(Slashed with CHEM 40264 and CHEM 70264) Course provides an in-depth exploration of the biochemical basis for disease and its application to clinical medicine with an emphasis on new discoveries and other advances.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50266 PRINCIPLES AND APPLICATIONS IN BIOCHEMISTRY 2 Credit Hours

Survey of important principles and concepts and their application in biochemistry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

CHEM 50295 SPECIAL TOPICS IN BIOCHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40295 and CHEM 70295) (Repeatable for credit) In depth examination of current topics in biochemistry through guided study of literature and presentations.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 50302 INORGANIC CHEMISTRY II 3 Credit Hours

(Slashed with CHEM 40302) Physical techniques of inorganic chemistry, molecular structure and bonding, metallic and ionic solids, organometallic chemistry, homogeneous and heterogeneous catalysis; solid-state and materials chemistry, nanomaterials, nanoscience and nanotechnology; molecular symmetry, molecular orbital theory of polyatomic molecules and octahedral complexes, electronic spectra and reaction mechanisms of d-block complexes.

Prerequisite: CHEM 30301; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50303 INORGANIC CHEMISTRY III 2 Credit Hours

(Slashed with CHEM 40303) Molecular symmetry, molecular orbital theory of polyatomic molecules and octahedral complexes, electronic spectra and reaction mechanisms of d-block complexes, periodic trends Groups 1 and 2 and d-block, bioinorganic chemistry.

Prerequisite: CHEM 50302; and graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 50352 INORGANIC MATERIALS CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40352 and CHEM 70352) Broad survey of the synthesis, properties, characterization and applications of inorganic materials.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50365 BIOLOGICAL INORGANIC CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40365 and CHEM 70365) Physical methods, s-block metals, metal-induced stabilization, electron transfer proteins, oxidoreductases, hydrolases and lyases, metal transport and storage, nitrogenases, group-atom transfer and metals in medicine.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50366 PRINCIPLES AND APPLICATIONS IN INORGANIC CHEMISTRY 2 Credit Hours

Survey of important principles and concepts and their application in inorganic chemistry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 50395 SPECIAL TOPICS IN INORGANIC CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40395 and CHEM 70395) (Repeatable for credit) In depth examination of current topics in inorganic chemistry through guided study of literature and presentations.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 50451 ORGANIC MATERIALS CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40451 and CHEM 70451) Broad survey of the synthesis, properties, characterization and applications of organic and polymeric materials.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50466 PRINCIPLES AND APPLICATIONS IN ORGANIC CHEMISTRY 2 Credit Hours

Survey of important principles and concepts and their application in Organic Chemistry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 50476 SPECTROSCOPIC IDENTIFICATION OF ORGANIC COMPOUNDS 2 Credit Hours

(Slashed with CHEM 40476 and CHEM 70476) Strategies for structural elucidation of organic compounds from analysis of infrared, proton and carbon NMR and mass spectrometric data through lectures and problem solving.

Prerequisite: CHEM 30482; and graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 50477 INTERMEDIATE ORGANIC CHEMISTRY LABORATORY 1 Credit Hour

Continuation of CHEM 30476, including hands-on use of a high-field NMR spectrometer; single and multistep organic syntheses.

Prerequisite: CHEM 50483 and graduate standing.

Schedule Type: Laboratory

Contact Hours: 1 lab

Grade Mode: Standard Letter

CHEM 50483 INTERMEDIATE ORGANIC CHEMISTRY 2 Credit Hours

(Slashed with CHEM 40483 and CHEM 70483) Organic chemistry from mechanistic and synthetic viewpoints, including synthetic design, organotransition metal chemistry and free radical chemistry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 50485 PHYSICAL ORGANIC CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40485 and CHEM 70485) This course presents a modern view of organic chemistry through the study of organic reaction mechanisms, advanced chemical bonding theories, high-energy intermediates and reactivity patterns common to organic chemical reactions. Emphasis is placed on synthetic organic chemistry with a focus on chemical structure, reactivity, chemical kinetics, thermodynamics, physical and chemical behavior and reaction mechanisms. Central to these investigations is understanding the use of molecular spectroscopy and molecular modeling software as investigative tools. A specific goal of this course is to introduce students to concepts necessary to solving mechanistic organic problems encountered in the research laboratory. The course covers common organic reaction mechanisms, experimental techniques and theoretical approaches to understanding reaction mechanisms. All topics are approached from a structural and mechanistic perspective. Emphasis is also placed on the importance of organic chemistry in biochemical systems. Classroom time is divided into lectures, discussions and problem solving sessions to enable students to develop both advanced knowledge and problem solving skills in organic chemistry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50495 SPECIAL TOPICS IN ORGANIC CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40495 and CHEM 70495) (Repeatable for credit) In depth examination of current topics in organic chemistry through guided study of literature and presentations.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 50541 ADVANCED PHYSICAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40541 and CHEM 70541) Covers basic materials of modern physical chemistry in two broad areas: thermodynamics and introductory quantum mechanics.

Prerequisite: CHEM 50556; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50555 PHYSICAL CHEMISTRY I 3 Credit Hours

(Slashed with CHEM 40555 and CHEM 70555) Fundamental concepts of physical chemistry, with example problems chosen emphasizing application in chemistry and the biological sciences.

Prerequisite: Graduate standing in Chemistry.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50556 PHYSICAL CHEMISTRY II 3 Credit Hours

(Slashed with CHEM 40556 and CHEM 70556) A continuation of CHEM 50555. Areas covered are chemical kinetics, quantum chemistry and the solid state.

Prerequisite: CHEM 50555 or PHY 45301; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50557 PHYSICAL CHEMISTRY LABORATORY 2 Credit Hours

(Slashed with CHEM 40557 and CHEM 70557) Experiments in numerous areas of physical chemistry, including the interpretation and reporting of obtained experimental data, correlation of results with theory and an introduction to the computer treatment of data.

Prerequisite: Graduate standing.

Pre/corequisite: CHEM 50555 and CHEM 50556.

Schedule Type: Laboratory

Contact Hours: 4 lab

Grade Mode: Standard Letter

CHEM 50559 NANOMATERIALS 3 Credit Hours

(Slashed with CHEM 40559 and CHEM 70559). Fundamental aspects of nanomaterials ranging from nanoparticles to three-dimensional (3D) nanostructures emphasizing their synthesis, chemistry and applications.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50563 QUANTUM CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40563 and CHEM 70563) This course builds on the physical chemistry course sequence and introduces advanced topics of quantum mechanics and their applications in chemistry and towards understanding the electronic structure of atoms and molecules.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50564 COMPUTATIONAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40564 and CHEM 70564) The course introduces the theoretical foundations and practical techniques of computational chemistry research.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 50566 PRINCIPLES AND APPLICATIONS IN PHYSICAL CHEMISTRY 2 Credit Hours

Survey of key principles and concepts and their application in Physical Chemistry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 50571 SURFACE CHEMISTRY 2 Credit Hours

(Slashed with CHEM 40571 and CHEM 70571) Treatment of basic principles and concepts in surface and colloid chemistry. Relationship to practical systems emphasized.

Prerequisite: CHEM 40555 or 40567; and graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 50595 SPECIAL TOPICS IN PHYSICAL CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40595 and CHEM 70595) (Repeatable for credit) In depth examination of current topics in physical chemistry through guided study of literature and presentations.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 50795 CURRENT TOPICS IN CHEMICAL EDUCATION 1-3 Credit Hours

(Repeatable for credit) (Slashed with CHEM 40795) Designed to present recent advances in chemical research, instrumentation and theory to chemistry educators.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Satisfactory/Unsatisfactory

CHEM 51010 BIOPHOTONICS 3 Credit Hours

(Slashed with CHEM 41010) (Cross-listed with BSCI 41110 and BSCI 51110 and PHY 41010 and PHY 51010) Interdisciplinary overview of the basics of biophotonics; application of biophotonic techniques to probe biological samples. Introduction to the foundations of optics and photonics and how the molecular structure of organic molecules translates into unique photonic properties and targeting in biological cells or tissue. Preparation of fluorescent materials, advanced spectroscopy and cell visualization using regular and confocal fluorescence microscopy.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Combined Lecture and Lab

Contact Hours: 1 lecture, 6 lab

Grade Mode: Standard Letter

CHEM 60099 MASTERS CAPSTONE PROJECT 3-6 Credit Hours

(Repeatable for credit) Capstone project in the form of literature reviews or research projects covering topics in chemistry, biochemistry or chemical education.

Prerequisite: Graduate standing.

Schedule Type: Project or Capstone

Contact Hours: 3-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CHEM 60199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CHEM 60254 BIOMEMBRANES 2 Credit Hours

(Slashed with CHEM 70254) Biological membranes; composition, structure, dynamics and biogenesis; structure/function of protein mediated membrane transport.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 60291 SEMINAR: RECENT DEVELOPMENTS IN BIOCHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 70291) Presentation and discussion of research papers from current biochemistry literature. Participation by students and faculty.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 60299 THESIS II 2 Credit Hours

Thesis students must continue registration until all degree requirements are met.

Prerequisite: CHEM 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CHEM 60327 MODERN INORGANIC CHEMISTRY 3 Credit Hours

(Slashed with CHEM 70327) Synthesis, structure and reactivity of inorganic compounds including transition metal and organometallic complexes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 60391 SEMINAR: RECENT DEVELOPMENTS IN INORGANIC CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 70391) Presentation and discussion of research papers from current inorganic chemistry literature. Participation by students and faculty.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 60472 ADVANCED ORGANIC CHEMISTRY-SYNTHETIC ASPECTS 3 Credit Hours

(Slashed with CHEM 70472) Disconnection approach to organic synthesis. Modern methods for carbon-carbon bond formation and functional group interconversion, and their application to natural product synthesis.

Prerequisite: CHEM 30482; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 60473 STEREOSELECTIVE ORGANIC SYNTHESIS 3 Credit Hours

(Slashed with CHEM 70473) Modern methods of asymmetric synthesis; introduction to selected methods for stereoselective N-heterocycle synthesis; application of these methods in natural product synthesis.

Prerequisite: CHEM 30482; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 60541 ADVANCED PHYSICAL CHEMISTRY 3 Credit Hours

Covers basic materials of modern physical chemistry in two broad areas: thermodynamics and introductory quantum mechanics.

Prerequisite: CHEM 50556; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 60591 SEMINAR: RECENT DEVELOPMENTS IN PHYSICAL CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 70591) Presentation and discussion of research papers from current physical chemistry literature. Participation by students and faculty.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 60691 SEMINAR: RECENT DEVELOPMENTS IN INDUSTRIAL CHEMISTRY 1 Credit Hour

Presentation and discussion of research papers from the current industrial chemistry field. Participation by students and faculty.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

CHEM 60894 COLLEGE TEACHING OF CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 70894) Experience in teaching of chemistry at college level.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

CHEM 60898 MASTERS RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for master's students. Credits earned may be applied toward degree if department approves.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CHEM 61191 SEMINAR: PROBLEM SOLVING IN ANALYTICAL CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 71191) Problem solving in analytical chemistry, including chemical analysis methods, instrumentation, sample preparation, and data handling.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 61491 SEMINAR: PROBLEM SOLVING IN ORGANIC CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 71491) Practical experience in the solving of current problems of synthesis, spectroscopy, and mechanism in organic chemistry.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 62191 SEMINAR: ANALYTICAL CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 72191) Student and faculty presentations on topics in analytical chemistry.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 62291 SEMINAR: BIOCHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 72291) Student and faculty presentations on topics in biochemistry

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 62391 SEMINAR: INORGANIC CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 72391) Student and faculty presentations on topics in inorganic chemistry.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 62491 SEMINAR: ORGANIC CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 72491) Presentation of topics from the recent literature on aspects of organic chemistry including synthesis, spectroscopy, mechanism, and materials properties.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 62591 SEMINAR: PHYSICAL CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 72591) Student and faculty presentations on topics in physical chemistry.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 62691 SEMINAR: INDUSTRIAL CHEMISTRY 1 Credit Hour

Presentation of current research in industrial chemistry. Participation by students and faculty.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

CHEM 62791 SEMINAR: CHEMICAL EDUCATION 1 Credit Hour

Presentation of current research in chemical education. Participation by students and faculty.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

CHEM 70093 VARIABLE TITLE WORKSHOP IN CHEMISTRY 1-6 Credit Hours

(Repeatable for credit) Variable title workshop in Chemistry.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

CHEM 70109 BIOANALYTICAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40109 and CHEM 50109) Covers traditional as well as newly emerging topics in the field of bioanalytical chemistry. The course will provide an overview of the fundamental biological targets for the bioanalytical assays, such as lipids, peptides, proteins, nucleic acids, and cells. The course will then briefly introduce traditional tools, such as chromatography, electrophoresis, mass spectrometry, fluorescence techniques, immunoassays, and biosensors. Finally, the course will discuss approaches most recently developed in the field, which include lab-on-a-chip and single molecule techniques.

Prerequisite: CHEM 30105; and doctoral standing; and special approval.

Corequisite: CHEM 30284 or CHEM 40245 or CHEM 40261.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70113 CHEMICAL SEPARATIONS 3 Credit Hours

(Slashed with CHEM 40113 and CHEM 50113) Theory, instrumentation and applications of chemical separations for chemical analysis. Emphasis on gas and liquid chromatography.

Prerequisite: CHEM 30106; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70115 APPLICATIONS OF SPECTROSCOPY AND IMAGING 3 Credit Hours

(Slashed with CHEM 40115 and CHEM 50115) This course covers the fundamentals of optics, recent developments in spectroscopy and microscopy and their applications in chemistry. Included are methods of optical microscope-based spectroscopy and imaging in relation to analytical chemistry, biochemistry and polymer chemistry research; such as principles and applications of fluorescence spectroscopy, atomic force microscopy, optical tweezer and patch clamp.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70195 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40195 and CHEM 50195) (Repeatable for credit) In depth examination of current topics in analytical chemistry through guided study of literature and presentations.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 70248 ADVANCED BIOLOGICAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40248 and CHEM 50248) Supra-molecular structures of DNA, advanced topics in DNA replication, recombination, damage and repair; gene transcription, Pre-RNA processing, mRNA translation, post-translational modifications on proteins; protein folding, protein splicing, sorting of proteins in different parts of the cells, and protein turn-over; cell signaling and cell cycle; and genetic diseases and their therapies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70254 BIOMEMBRANES 2 Credit Hours

(Slashed with CHEM 60254) Biological membranes; composition, structure, dynamics and biogenesis; structure/function of protein mediated membrane transport.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 70261 BIOCHEMISTRY: BIOMOLECULE STRUCTURE AND FUNCTION 3 Credit Hours

(Slashed with CHEM 40261 and CHEM 50261) Introduction to biochemical principles regarding the structure and function of biomolecules including water, amino acids, proteins, carbohydrates and lipids; emphases on enzymes, membranes and bioenergetics.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70262 BIOCHEMISTRY: METABOLISM AND GENE EXPRESSION 3 Credit Hours

(Slashed with CHEM 40262 and CHEM 50262) Aspects of biochemistry focusing on information, chemical and energy flow, including: integration of metabolic pathways; DNA replication, repair, recombination and modification; transcription and translation; signal transduction, and post-translational modification.

Prerequisite: CHEM 50261 or CHEM 70261; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70263 PHYSICAL BIOCHEMISTRY 3 Credit Hours

(Slashed with CHEM 40263 and CHEM 50263) Principles and techniques of physical chemistry used in studying biomacromolecules and biological systems. Topics covered are thermodynamics, spectroscopy, structure and properties of biological molecules.

Prerequisite: Doctoral standing in Chemistry.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70264 MEDICAL BIOCHEMISTRY 3 Credit Hours

(Slashed with CHEM 40264 and CHEM 50264) The course provides an in-depth exploration of the biochemical basis for disease and its application to clinical medicine with an emphasis on new discoveries and other advances.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70291 SEMINAR: RECENT DEVELOPMENTS IN BIOCHEMISTRY 1 Credit Hour

(Slashed with CHEM 60291)(Repeatable for credit) Presentation and discussion of research papers from current biochemistry literature. Participation by students and faculty.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 70295 SPECIAL TOPICS IN BIOCHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40295 and CHEM 50295) (Repeatable for credit) In depth examination of current topics in biochemistry through guided study of literature and presentations.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 70327 MODERN INORGANIC CHEMISTRY 3 Credit Hours

(Slashed with CHEM 60327) Synthesis, structure and reactivity of inorganic compounds including transition metal and organometallic complexes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70352 INORGANIC MATERIALS CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40352 and CHEM 50352) Broad survey of the synthesis, properties, characterization and applications of inorganic materials.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70365 BIOLOGICAL INORGANIC CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40365 and CHEM 50365) Physical methods, s-block metals, metal-induced stabilization, electron transfer proteins, oxidoreductases, hydrolases and lyases, metal transport and storage, nitrogenases, group-atom transfer and metals in medicine.

Prerequisite: CHEM 30301; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70391 SEMINAR: RECENT DEVELOPMENTS IN INORGANIC CHEMISTRY 1 Credit Hour

(Slashed with CHEM 60391)(Repeatable for credit) Presentation and discussion of research papers from current inorganic chemistry literature. Participation by students and faculty.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 70395 SPECIAL TOPICS IN INORGANIC CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40395 and CHEM 50395) (Repeatable for credit) In depth examination of current topics in inorganic chemistry through guided study of literature and presentations.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 70451 ORGANIC MATERIALS CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40451 and CHEM 50451) Broad survey of the synthesis, properties characterization and applications of organic and polymeric materials.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70472 ADVANCED ORGANIC CHEMISTRY-SYNTHETIC ASPECTS 3 Credit Hours

(Slashed with CHEM 60472) Disconnection approach to organic synthesis. Modern methods for carbon-carbon bond formation and functional group interconversion, and their application to natural product synthesis. Doctoral standing.

Prerequisite: CHEM 30482.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70473 STEREOSELECTIVE ORGANIC SYNTHESIS 3 Credit Hours

(Slashed with CHEM 60473) Modern methods of asymmetric synthesis; introduction to selected methods for stereoselective N-heterocycle synthesis; application of these methods in natural product synthesis.

Prerequisite: CHEM 30482; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70476 SPECTROSCOPIC IDENTIFICATION OF ORGANIC COMPOUNDS 2 Credit Hours

(Slashed with CHEM 40476 and CHEM 50476) Strategies for structural elucidation of organic compounds from analysis of infrared, proton and carbon NMR, and mass spectrometric data through lectures and problem solving.

Prerequisite: CHEM 30482; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 70483 INTERMEDIATE ORGANIC CHEMISTRY 2 Credit Hours

(Slashed with CHEM 40483 and CHEM 50483) Organic chemistry from mechanistic and synthetic viewpoints, including synthetic design, organotransition metal chemistry and free radical chemistry.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 70485 PHYSICAL ORGANIC CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40485 and CHEM 50485) This course presents a modern view of organic chemistry through the study of organic reaction mechanisms, advanced chemical bonding theories, high-energy intermediates and reactivity patterns common to organic chemical reactions. Emphasis is placed on synthetic organic chemistry with a focus on chemical structure, reactivity, chemical kinetics, thermodynamics, physical and chemical behavior and reaction mechanisms. Central to these investigations is understanding the use of molecular spectroscopy and molecular modeling software as investigative tools. A specific goal of this course is to introduce students to concepts necessary to solving mechanistic organic problems encountered in the research laboratory. The course covers common organic reaction mechanisms, experimental techniques and theoretical approaches to understanding reaction mechanisms. All topics are approached from a structural and mechanistic perspective. Emphasis is also placed on the importance of organic chemistry in biochemical systems. Classroom time is divided into lectures, discussions and problem solving sessions to enable students to develop both advanced knowledge and problem solving skills in organic chemistry.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70495 SPECIAL TOPICS IN ORGANIC CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40495 and CHEM 50495) (Repeatable for credit) In depth examination of current topics in organic chemistry through guided study of literature and presentations.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 70541 ADVANCED PHYSICAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40541 and CHEM 50541) Covers basic materials of modern physical chemistry in two broad areas: thermodynamics and introductory quantum mechanics.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70555 PHYSICAL CHEMISTRY I 3 Credit Hours

(Slashed with CHEM 40555 and CHEM 50555) Fundamental concepts of physical chemistry, with example problems chosen emphasizing applications in chemistry and the biological sciences.

Prerequisite: Doctoral standing in Chemistry.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70556 PHYSICAL CHEMISTRY II 3 Credit Hours

(Slashed with CHEM 40556 and CHEM 50556) Fundamental concepts of physical chemistry of current interest. Included are biological and medical aspects of physical chemistry. Graduate credit given to nonchemistry and nonphysics majors and with permission to certain chemistry majors.

Prerequisite: CHEM 50555 or 70555; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70557 PHYSICAL CHEMISTRY LABORATORY 2 Credit Hours

(Slashed with CHEM 40557 and CHEM 50557) Experiments in numerous areas of physical chemistry, including the interpretation and reporting of obtained experimental data correlation of results with theory and an introduction to the computer treatment of data.

Prerequisite: Doctoral standing.

Pre/corequisite: CHEM 70555 and CHEM 70556.

Schedule Type: Laboratory

Contact Hours: 4 lab

Grade Mode: Standard Letter

CHEM 70559 NANOMATERIALS 3 Credit Hours

(Slashed with CHEM 40559 and CHEM 50559) Fundamental aspects of nanomaterials ranging from nanoparticles to three-dimensional (3D) nanostructures emphasizing their synthesis, chemistry and applications.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70563 QUANTUM CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40563 and CHEM 50563) This course builds on the physical chemistry course sequence and introduces advanced topics of quantum mechanics and their applications in chemistry and towards understanding the electronic structure of atoms and molecules.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70564 COMPUTATIONAL CHEMISTRY 3 Credit Hours

(Slashed with CHEM 40564 and CHEM 50564) The course introduces the theoretical foundations and practical techniques of computational chemistry research.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHEM 70571 SURFACE CHEMISTRY 2 Credit Hours

(Slashed with CHEM 40571 and CHEM 50571) Treatment of basic principles and concepts in surface and colloid chemistry. Relationship to practical systems emphasized.

Prerequisite: CHEM 40555 or CHEM 40567; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

CHEM 70591 SEMINAR: RECENT DEVELOPMENTS IN PHYSICAL CHEMISTRY 1 Credit Hour

(Slashed with CHEM 60591)(Repeatable for credit) Presentation and discussion of research papers from current physical chemistry literature. Participation by students and faculty.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 70595 SPECIAL TOPICS IN PHYSICAL CHEMISTRY 1-3 Credit Hours

(Slashed with CHEM 40595 and CHEM 50595) (Repeatable for credit) In depth examination of current topics in physical chemistry through guided study of literature and presentations.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CHEM 70894 COLLEGE TEACHING OF CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 60894) Experience in teaching of chemistry at college level.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

CHEM 71191 SEMINAR: PROBLEM SOLVING IN ANALYTICAL CHEMISTRY 1 Credit Hour

(Slashed with CHEM 61191)(Repeatable for credit) Problem solving in analytical chemistry, including chemical analysis methods, instrumentation, sample preparation, and data handling.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 71491 SEMINAR: PROBLEM SOLVING IN ORGANIC CHEMISTRY 1 Credit Hour

(Slashed with CHEM 61491)(Repeatable for credit) Practical experience in the solving of current problems of synthesis, spectroscopy, and mechanism in organic chemistry.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 72191 SEMINAR: ANALYTICAL CHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 62191) Student and faculty presentations on topics in analytical chemistry.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 72291 SEMINAR: BIOCHEMISTRY 1 Credit Hour

(Repeatable for credit) (Slashed with CHEM 62291) Student and faculty presentations on topics in biochemistry.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 72391 SEMINAR: INORGANIC CHEMISTRY 1 Credit Hour

(Slashed with CHEM 62391)(Repeatable for credit) Student and faculty presentations on topics in inorganic chemistry.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 72491 SEMINAR: ORGANIC CHEMISTRY 1 Credit Hour

(Slashed with CHEM 62491)(Repeatable for credit) Presentation of topics from the recent literature on aspects of organic chemistry including synthesis, spectroscopy, mechanism, and materials properties.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 72591 SEMINAR: PHYSICAL CHEMISTRY 1 Credit Hour

(Slashed with CHEM 62591)(Repeatable for credit) Student and faculty presentations on topics in physical chemistry.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter-IP

CHEM 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in two semesters is required, first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CHEM 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: CHEM 80199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CHEM 80898 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for doctoral students. Credits earned may be applied toward degree if department approves.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Department of Computer Science

Computer Science (CS)

CS 10051 COMPUTER SCIENCE PRINCIPLES (KMCR) 4 Credit Hours

An introductory, broad and hands-on coverage of aspects of computer science, including algorithms, problem solving, operating systems concepts, computer architecture, programming languages and modern applications.

Prerequisite: None.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning

CS 10062 PROGRAMMING FOR PROBLEM SOLVING IN SCIENCES 4 Credit Hours

Solving problems in a science frequently requires a knowledge of programming. This course provides an introduction to using programs to solve problems. It is designed for majors and non-majors who have had little or no prior programming experience. The course emphasizes a hands-on, team-based approach to learning programming and problem solving.

Prerequisite: Minimum 55 ALEKS math score or minimum C grade in either MATH 11009 (or MATH 10772) or MATH 11010 (or MATH 10775 or MATH 10675).

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

CS 13001 COMPUTER SCIENCE I: PROGRAMMING AND PROBLEM SOLVING 4 Credit Hours

Computer science concepts, including algorithm development and problem-solving strategies focused on procedural abstraction. High-level programming concepts, including data types, expressions, program structures, functions, parameter passing, scope, extent, arrays and introduction to recursion and object-oriented concepts. Students may only receive credit toward graduation for one of the following: CS 13001; or CS 13011 and CS 13012.

Prerequisite: MATH 11022 or MATH 12002 or MATH 12011; or minimum C grade in one of the following courses: MATH 10675 or MATH 10775 or MATH 11010; or minimum 67 ALEKS math score.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2.8 lecture, 3.36 lab

Grade Mode: Standard Letter

CS 13011 COMPUTER SCIENCE IA: PROCEDURAL PROGRAMMING 2 Credit Hours

Computer science concepts, including algorithm development and problem-solving strategies focused on programming abstractions. High-level programming concepts, including variables, branching, iteration and functions. Students may only receive credit toward graduation for one of the following: CS 13001; or CS 13011 and CS 13012.

Prerequisite: MATH 11022 or MATH 12002 or MATH 12011; or minimum C grade in one of the following courses: MATH 10675 or MATH 10775 or MATH 11010; or minimum 67 ALEKS math score.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1.4 lecture, 1.68 lab

Grade Mode: Standard Letter

CS 13012 COMPUTER SCIENCE IB: OBJECT ORIENTED PROGRAMMING 2 Credit Hours

Computer science concepts, including algorithm development and problem-solving strategies focused on programming abstractions. High-level programming concepts, including introduction to recursion and object-oriented concepts. Students may only receive credit toward graduation for one of the following: CS 13001; or CS 13011 and CS 13012.

Prerequisite: CS 13011 with a minimum C grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1.4 lecture, 1.68 lab

Grade Mode: Standard Letter

CS 19995 SPECIAL TOPICS IN COMPUTER SCIENCE 1-3 Credit Hours

(Repeatable for credit) Special topics from all areas of computer science.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CS 20062 ADVANCED PROGRAMMING WITH PYTHON 4 Credit Hours

This course introduces students to advanced computer programming design and development with the main focus on data structures and abstraction using Python. Students learn basic object-oriented and GUI programming and graph algorithm applications.

Prerequisite: CS 10062 or CS 13001 or CS 13012.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

CS 23001 COMPUTER SCIENCE II: DATA STRUCTURES AND ABSTRACTION 4 Credit Hours

Advanced computer programming design, and development with a primary focus on data structures and abstraction using an object oriented programming language.

Prerequisite: Minimum C grade in CS 13001 or CS 13012.

Corequisite: CS 23022.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

CS 23022 DISCRETE STRUCTURES FOR COMPUTER SCIENCE 3 Credit Hours

(Cross-listed with MATH 23022) Discrete structures for computer scientists with a focus on: mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking, applications and modeling. Specific topics include propositional and predicate logic and logical modeling using Boolean algebra and logical gates, information representation using binary system, sets, functions, relations, logical argumentation and proof techniques, recursion and recursive modeling, sequences and summation, arithmetic and geometric progressions, algorithms, iterative vs recursive algorithms, mathematical and structural induction, recursive structures, counting, permutation and combination, binomial expansion, matrices and matrix-operations, graphs and trees and their traversal, probability and Bayes' theorem, finite state machines, their modeling and applications, Regular grammar, basics of number theory, modeling computation and Turing machines, decidability and halting problem.

Prerequisite: Minimum C grade in MATH 11009 or MATH 11010 or MATH 11022, or ALEKS score of 78.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 23301 ROBOTICS AND EMBEDDED SYSTEMS LABORATORY I 1 Credit Hour

This course provides a team based, hands-on introduction to linking and programming robotic and embedded systems. Students in this course work with junior and senior level students on projects building devices that require linking and programming robotic and embedded systems.

Prerequisite: Minimum C grade in CS 13001 or CS 13012.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

CS 23302 ROBOTICS AND EMBEDDED SYSTEMS LABORATORY II 2 Credit Hours

This course is the second computer science course on linking and programming robotic and embedded systems in a team based, hands-on environment. Students in this course work with junior and senior level students on projects building devices that require linking and programming robotic and embedded systems.

Prerequisite: CS 23001 and CS 23301 with a minimum C grade.

Schedule Type: Laboratory

Contact Hours: 4 lab

Grade Mode: Standard Letter

CS 29995 SPECIAL TOPICS IN COMPUTER SCIENCE 1-3 Credit Hours

(Repeatable for credit) Special topics from all areas of computer science.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CS 30062 PYTHON FOR DATA SCIENCE 3 Credit Hours

This course will introduce basic topics in the field of data science, including data collection, storage, manipulation, and visualization, as well as the area of machine learning. Specifically, students will learn how to use Python to import, clean, analyze, visualize, and learn data for real-world applications.

Prerequisite: CS 20062 or CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 32301 HUMAN INTERFACE COMPUTING 3 Credit Hours

Foundations of human computer interaction including interaction design. Foundations of graphics and visualization. Basic concepts in security and secure design including cryptography. Introduction to intelligent systems including basic knowledge representation and basic machine learning.

Prerequisite: Minimum C grade in CS 20062 or CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 33007 INTRODUCTION TO DATABASE SYSTEM DESIGN 3 Credit Hours

An introduction to the basic theoretical aspects of database systems, file organization, search methodologies, language design and performance evaluation techniques, initial modeling concepts and their use in hierarchical, network, relational and object-oriented database designs.

Prerequisite: Minimum C grade in CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 33101 STRUCTURE OF PROGRAMMING LANGUAGES 3 Credit Hours

Introduction to grammar, discrete and data structure concepts, syntax, semantics, abstraction, Advanced Programming Constructs, implementation model for imperative languages, dynamic memory management, type theory, concurrent programming, functional programming, logic programming, object oriented programming, event driven programming.

Prerequisite: Minimum C grade in CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 33192 INTERNSHIP IN COMPUTER SCIENCE (ELR) 1-3 Credit Hours

(Repeatable for credit) Supervised work experience in computer science. Since this work will be outside the department a report and final presentation will be required; a site visit might also be necessary.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

CS 33211 OPERATING SYSTEMS 3 Credit Hours

Introduction to operating systems, processes and threads, CPU scheduling, mutual exclusion and synchronization, deadlock, memory management, file systems, security, networking and distributed systems and current topics. systems.

Prerequisite: Minimum C grade in CS 23001.

Pre/corequisite: CS 35101.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 33301 EMBEDDED SYSTEM PROGRAMMING 3 Credit Hours

An embedded system is a combination of computer hardware and software specifically designed for a particular function. Embedded systems have been playing important roles in various application areas such as industrial machines, automobiles, medical equipment, cameras, household appliances, airplanes, vending machines, toys and other uses. Students will learn fundamental concepts of designing and programming embedded computer systems, including requirements specifications, architectural and detailed design, and implementation, focusing on real-time aspects of programming languages, operating system kernels, and hardware architectures.

Prerequisite: Minimum C grade in CS 23001.

Corequisite: CS 35101.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 33302 INTRODUCTION TO INTELLIGENT ROBOTICS 3 Credit Hours

This course introduces students to the basic knowledge of programming of robotic systems, including algorithmic modeling and design, geometric motion planning and robot operating systems, all for making intelligent robots. Computer science is an integral part of robotics as it includes areas such as computer algorithms, computational geometry, artificial intelligence, machine learning and image processing. The material covered in this course consists of a brief description of the intrinsic geometry, kinematics, statics, mechanics and controls of robotic systems and goes deeper into developing algorithms and useful software libraries. In addition, this course introduces practical examples and performance results using them with hands-on experience in a lab setting.

Prerequisite: CS 20062 or CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 33901 SOFTWARE ENGINEERING 3 Credit Hours

An introduction to software engineering concepts: life cycle models; modeling languages; requirements analysis; specification; design; testing; validation; project management and maintenance.

Prerequisite: Minimum C grade in CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 35101 COMPUTER ORGANIZATION 3 Credit Hours

Computer system organization, including performance measures, instruction sets, computer arithmetic, central processing unit, pipelining, memory hierarchy and parallel processors.

Prerequisite: Minimum C grade in the following courses: CS 10062 or CS 13001; or CS 13011 and CS 13012.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 35201 COMPUTER COMMUNICATION NETWORKS 3 Credit Hours

An introduction to net-centric systems, data communication protocols, network architectures, routing protocols, network management, congestion control, network security, compression techniques, mobile and wireless networks and WWW as an example of a client-server system.

Prerequisite: CS 20062 or CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 38101 INTRODUCTION TO GAME PROGRAMMING 3 Credit Hours

Game engine scripting, event driven and data driven programming, game engine data structures, basic game related graphics and AI concepts, a short game development project.

Prerequisite: Minimum C grade in CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 39995 SPECIAL TOPICS IN COMPUTER SCIENCE 1-3 Credit Hours

(Repeatable for credit) Special topics from all areas of computer science.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 40510 INTRODUCTION TO NATURAL LANGUAGE PROCESSING 3 Credit Hours

(Cross-listed with MCLS 40510)(Slashed with CS 50510, CS 70510, MCLS 50510 and MCLS 70510) This course provides an introduction to natural language processing, discusses methods to analyze translation product and translation process data and applies and evaluates machine learning methods on natural language data. Students use tools to transform texts into structured representations that are elementary for numerous applications, artificial intelligence, data analytics and predictive modeling. Knowledge of Python is strongly encouraged, but not required.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 41038 INTERMEDIATE LOGIC 3 Credit Hours

(Cross-listed with MATH 41038 and PHIL 41038)(Slashed with MATH 51038 and PHIL 51038) A detailed, systematic study of symbolic logic for philosophy majors, mathematics majors, computer science majors and anyone else interested in advanced study in logic. The aim of the course is twofold: (1) to develop a facility in understanding and using symbolic logic for various purposes, and (2) to understand and appreciate symbolic logic as an area of study in itself. Topics include the distinction between syntactic, object-level proofs and semantic, meta-level proofs; the distinction between axiomatic systems and natural deduction systems of object-level proofs; various systems of modal logic; and some non-classical logics.

Prerequisite: Computer Science major or minor; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 42201 NUMERICAL LINEAR ALGEBRA 3 Credit Hours

(Cross-listed with MATH 42201)(Slashed with CS 52201 and MATH 52201) Fundamentals of numerical linear algebra; solving linear systems; QR factorization and least squares; iterative methods for eigenvalue problems.

Prerequisite: Minimum C grade in the following courses CS 10062 or CS 13001 or (CS 13011 and CS 13012) or ENGR 15302 or (ENGR 15300 and ENGR 15301); and MATH 12003 or MATH 12013; and MATH 21001 or MATH 21002 or MATH 32051.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 42202 NUMERICAL APPROXIMATION AND OPTIMIZATION 3 Credit Hours

(Cross-listed with MATH 42202)(Slashed with CS 52202 and MATH 52202) This course introduces numerical methods for solving nonlinear equations, optimizing functions, performing interpolation, computing differentiation and integration and solving differential equations.

Prerequisite: Minimum C grade in the following courses: CS 10062 or CS 13001 or (CS 13011 and CS 13012) or ENGR 15302 or (ENGR 15300 and ENGR 15301); and (MATH 22005 and MATH 32044) or MATH 32052.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43016 BIG DATA ANALYTICS 3 Credit Hours

This course will introduce the state-of-art computing platforms with the focus on how to utilize them in processing (managing and analyzing) massive datasets. The course will utilize several key data processing tasks, including simple statistics, data aggregation, join processing, frequent pattern mining, data clustering, information retrieval, pagerank, and massive graph analytics as the case study for large scale data processing.

Prerequisite: CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43105 DATA MINING TECHNIQUES 3 Credit Hours

Concepts and techniques of data mining. Data mining is a process of discovering information from a set of large databases. This course takes a database perspective on data mining, covering a set of interesting topics, including association rule mining, clustering, classification, web mining, etc. It covers the basics of some important theoretical foundations for data mining, including linear regression, Bayesian inferences, information theory, and markov chain random walk.

Prerequisite: CS 33007.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43118 GRAPH AND SOCIAL NETWORK ANALYSIS 3 Credit Hours

(Slashed with CS 53118 and CS 73118) Catalog Description: This course covers a number of important and useful ideas in graph databases, especially in social networks (e.g. the data model for certain-uncertain graphs), indexing over graphs, and query processing algorithms for graph databases (e.g., single-source path queries, path queries, reachability queries, keyword search queries, subgraph matching, etc.). The influence maximization problems over social networks in real applications are also discussed as well as various queries over the distributed graph database.

Prerequisite: CS 33007.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43202 SYSTEMS ADMINISTRATION 3 Credit Hours

(Slashed with CS 53202) The setting up and day-to-day administration of multiuser multitasking systems, such as the various versions of UNIX, together with the analysis of problems which can arise in these activities.

Prerequisite: CS 33211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43203 SYSTEMS PROGRAMMING 3 Credit Hours

(Slashed with CS 53203) This course provides an in-depth exploration of the Unix/Linux operating system's structure while teaching students how to write system and network programs. It is ideal for those interested in developing system software for Unix/Linux or gaining a deeper understanding of a multi-tasking, multi-user operating system. The course covers key topics, including the file system, terminal and device input/output, multi-tasking, inter-process communication, video display management and network programming. Theoretical concepts are integrated with practical examples of how Unix implements them. By the end of the course, students have the skills to understand how most Unix commands function and are capable of drafting their own versions of many common commands.

Prerequisite: CS 33211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43301 SOFTWARE DEVELOPMENT FOR ROBOTICS 3 Credit Hours

(Slashed with CS 53301) Robots are being used in multiple places that are not easily accessible for humans to support the lack of available labor and gain extra precision, and for cost-effective manufacturing processes, monitoring, space exploration, precision surgery and artificial limb support for elderly and physically challenged persons. Computer science is an integral part of robotics as it includes areas such as computer algorithms, artificial intelligence and image processing, which are essential aspects of robotics. This first course on robotics teaches students various motions of rigid robots; mathematics and algorithms related to these motions; motion planning; obstacle avoidance; and intelligent path planning, including the use of various sensors. In addition, students learn Robot Operating System (ROS) and ROS programming which provide a structured, modular and well-supported environment that facilitates understanding and experimentation in the field of robotics.

Prerequisite: Minimum C grade in the following courses: CS 23001; and CS 33301 or CS 33302.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43302 ALGORITHMIC ROBOTICS 3 Credit Hours

(Slashed with CS 53302 and CS 73302) This course provides students theoretical, mathematical, and practical foundations for the design, analysis, and evaluation of algorithms for robots for diverse robotic applications. We will focus on a principled and mathematically sound approach to the design of algorithms for robots rather than ad hoc and hacking development approaches.

Prerequisite: CS 33301 and CS 43301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43303 INTERNET OF THINGS 3 Credit Hours

(Slashed with CS 53303 and CS 73303) This course will provide a comprehensive understanding of the Internet of Things by looking into a variety of real-world application scenarios, existing and new technologies and architectures, communication protocols and standardization efforts, societal and behavioral changes, and how to apply these technologies to tackle real-world problems.

Prerequisite: CS 33301 or CS 45231.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43305 ADVANCED DIGITAL DESIGN 3 Credit Hours

(Slashed with CS 53305) This course describes techniques in the design of digital systems. Topics covered include combinational and sequential logic, gate-level minimization, registers and counters, memory and programmable logic, hardware description languages, digital communication including serial and parallel and synchronous and asynchronous methods.

Prerequisite: CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43334 HUMAN-ROBOT INTERACTION 3 Credit Hours

(Slashed with CS 53334 and CS 73334) Human-Robot Interaction (HRI) is the study of interactions between humans and robots dedicated to understanding, designing, and evaluating robotic systems for use by and with humans. HRI is a multidisciplinary field that incorporates human-computer interaction, artificial intelligence, robotics, natural language understanding, design, and social sciences. Interaction between humans and robots may take several forms, but are generally categorized by how close in proximity the humans and robots are to each other such as remote, proximate, and hybrid interaction. In the class, students will learn the fundamental technologies and theories in each category, and blend this knowledge with various case studies and lab activities.

Prerequisite: CS 33301 and CS 43301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 43401 SECURE PROGRAMMING 3 Credit Hours

Code vulnerabilities, static code analysis, error handling, secure I/O, race conditions and mediation, handling buffer and integer overflow, handling vulnerabilities in web and database programming, privacy and cryptography, random number generators.

Prerequisite: Minimum C grade in CS 20062 or in CS 23001; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 44001 COMPUTER SCIENCE III - PROGRAMMING PATTERNS 4 Credit Hours

(Slashed with CS 54001) Extends students' knowledge of object-oriented programming, and improves their C++ programming skills. Specifically, the course covers procedural and object-based programming, inheritance, polymorphism, popular design patterns and generic programming.

Prerequisite: CS 23001 with a minimum C grade.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

CS 44003 MOBILE APPS IN IOS PROGRAMMING 3 Credit Hours

(Slashed with CS 54003) Students are introduced to mobile applications programming in the iOS environment using model, view, controller paradigms. Other topics include swift, programming using on board devices like GPS, cameras, motion detectors, and screen touches.

Prerequisite: CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 44004 DRONE PROGRAMMING 3 Credit Hours

(Slashed with CS 54004) This course describes the design, programming and control of autonomous drones. Topics covered include drone software and hardware architecture, use case models, interoperability, trajectory programming, flight control programming and sensors. Students apply this knowledge in the context of programming assignments with a drone simulator. Subsequently, students develop custom programs designed to control and fly autonomous drones.

Prerequisite: CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 44105 WEB PROGRAMMING I 3 Credit Hours

(Slashed with CS 54105) This course is the first of a two-course sequence on Web Programming covering from basic to advanced topics on Web Programming based on open standards and best practices. Topics covered include the HyperText Markup Language (HTML), specifying look and feel using Cascading Style Sheets (CSS), client side programming in Javascript, server side programming in PHP, and the Hypertext Transfer Protocol (HTTP).

Prerequisite: CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 44106 WEB PROGRAMMING II 3 Credit Hours

(Slashed with CS 54106) This course is the second of a two-course sequence on Web Programming covering advanced topics on Web Programming based on open standards and best practices. This is a project course exploring advanced aspects of Web programming. Topics covered include advanced server side programming in PHP; database driven websites; structured query language (SQL) and MySQL; E-commerce; web hosting using Apache, PHP and MySQL; basic and digest authentication; web security, encryption and digital certificates; Extensible Markup Language (XML) for the web, AJAX and web services; scalable vector graphics (SVG); mobile websites.

Prerequisite: CS 44105.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 44201 ARTIFICIAL INTELLIGENCE 3 Credit Hours

(Slashed with CS 54201) Computational intelligence concepts and methods such as modeling real-world problems as state-space search problems; heuristics, local and meta-heuristics search; game playing and adversarial search; constraint-based problem solving and optimization; automated machine learning theory and techniques; Knowledge based systems including logical inference techniques, fuzzy logic and case-based reasoning; probabilistic and uncertainty-based reasoning; ontology and semantic networks, and planning

Prerequisite: CS 23001 and CS 23022.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 44202 MACHINE LEARNING AND DEEP LEARNING 3 Credit Hours

(Slashed with CS 54202) This course provides an overview of some fundamental concepts, techniques and algorithms in machine learning and deep learning, and will give students a basic understanding (ideas and intuitions) of how modern machine learning works. Specifically, there are three main objectives: 1. To help student get familiar with the fundamental mathematical tools (linear algebra, probability theory, statistical inference, numerical optimization, and learning theory) which lays the foundation of machine learning algorithms and techniques; 2. To introduce the core machine learning concepts and topics, such as linear regression, classification, SVM, and neural networks (and its deep variants); in addition, we will utilize the recommendation system for students to learn how real world machine system works; 3. Teach students how to program and use the latest machine learning packages, such as Tensorflow.

Prerequisite: CS 23001 and MATH 21002 and MATH 20011 and MATH 12013.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 44901 SOFTWARE DEVELOPMENT PROJECT (ELR) (WIC) 4 Credit Hours

With the supervision of the instructor, students work in teams to design and implement a realistic software project similar to projects they would encounter in the workplace.

Prerequisite: CS 33901; and junior standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

CS 44902 SOFTWARE REQUIREMENTS ENGINEERING 3 Credit Hours

(Slashed with CS 54902) Students will learn a systematic approach to requirements elicitation, envisioning, requirements engineering, while leveraging design-based ideation and validation. Topics include software and systems requirements engineering, interface design and modeling, systems architecture, performance engineering, ethics, systems verification and testing.

Prerequisite: CS 33901.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 45102 CENTRAL PROCESSING UNIT (CPU) ARCHITECTURES 3 Credit Hours

(Slashed with CS 55102) This course explores CPU architectures and concepts, focusing mostly on general purpose CPUs. It begins by examining the x86 architecture, the origins of reduced instruction set computers, and how those diverse concepts were reconciled. It looks at superscalar execution, out-of-order execution, branch prediction, and speculative execution, and their use in the Intel Pentium Pro and Pentium II. Finally, it concludes by exploring some contemporary CPU architectures such as embedded processors, graphics processors, and the open-source RISC-V architecture.

Prerequisite: CS 35101; and CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 45203 COMPUTER NETWORK SECURITY 3 Credit Hours

(Slashed with CS 55203) Overview of network security including attacks and vulnerabilities and defense measures, secure network design, network and transport layers security, intrusion detection techniques, defense against denial of service attacks, network hardware, software, and applications attacks and their defense, security policies, legal and ethical issues in cyber and computer crimes.

Prerequisite: CS 35201 and CS 47221; and MATH 20011 or MATH 30011.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 45231 INTERNET ENGINEERING 3 Credit Hours

(Slashed with CS 55231) Design fundamentals and working principles of internet systems at the IP layer and above. DNS, inter-domain routing, internet client server programming, application-level protocols (HTTP, XML, etc.), web server architecture, browser, internet security and multimedia serving.

Prerequisite: CS 23001 and CS 33211 and CS 35201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 46101 DESIGN AND ANALYSIS OF ALGORITHMS 3 Credit Hours

(Slashed with CS 56101) Introduction to algorithmic concepts, design and complexity analysis of algorithms and data structures, searching, sorting, graph and string algorithms.

Prerequisite: MATH 12003 or MATH 12013; and minimum C grade in CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 47101 COMPUTER GRAPHICS 3 Credit Hours

Display file generation, interactive graphics techniques, display devices, three-dimensional graphics, graphic system design, graphic languages and applications in man-machine communications.

Prerequisite: CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 47102 COMPUTER HAPTICS 3 Credit Hours

(Slashed with CS 57102 and CS 77102) This course introduces students to computer haptics which is the study of touch with a focus on computing, developing algorithms and designing new user interfaces, innovatively enhancing existing human-computer systems. This course is organized into modules that include fundamental concept and theory lectures and practical programming assignments, including a term project with real haptic (touch feedback) devices combined with virtual reality display devices.

Prerequisite: CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 47205 INFORMATION SECURITY 3 Credit Hours

(Slashed with CS 57205) An introduction to concepts and methodology useful for information security, as specified by the NSTISSI NO. 4011 standard from the NSA.

Prerequisite: CS 47221; and CS 20062 or CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 47206 DATA SECURITY AND PRIVACY 3 Credit Hours

(Slashed with CS 57206) The goal of the course is to familiarize the students with basic concepts of security and privacy, their definitions, applications and current advances in research community and industry. This course addresses the security and privacy issues in legacy systems and also studies security and privacy policies and legislations. This course also reviews current research projects in the area of security and privacy.

Prerequisite: CS 47221; and CS 20062 or CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 47207 DIGITAL FORENSICS 3 Credit Hours

(Slashed with CS 57207) This course addresses the need for digital forensics, best practices for general incidence response, legal aspects of forensics, tools and techniques to perform a full computer forensic investigation.

Prerequisite: Minimum C grade in CS 20062 or in CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 47221 INTRODUCTION TO CRYPTOLOGY 3 Credit Hours

This is a course on the modern science of Cryptology; that is, the process of hiding information by converting it, through a reversible process, into something unrecognizable. Of course, only the recipient should be able to reverse the "hiding" or encrypting process. As far as usage in life is concerned, this course will help you to set up cryptosystems in many different environments. This skill is highly employable; from the NSA, to banks, to anybody who needs to encrypt information is looking for people with knowledge in Cryptology.

Prerequisite: Minimum C grade in CS 20062 or in CS 23001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 48101 GAME ENGINE CONCEPTS 3 Credit Hours

Introduction to 3D game engine design, game memory management, multithreading in games, sprites and bitmap animation level design, path finding, audio-visual effects, AI and physical modeling in games, networked gaming.

Prerequisite: CS 23001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 48102 GAME DEVELOPMENT PRACTICUM (ELR) (WIC) 4 Credit Hours

With the supervision of the instructor, students will work in teams to design and implement a computer game or 3D interactive learning environment using a game engine in a professional setup.

Prerequisite: CS 33007 and CS 33901 and CS 35201; and CS 48101 or CS 38101; and junior standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

CS 49995 SPECIAL TOPICS IN COMPUTER SCIENCE 1-4 Credit Hours

(Repeatable for credit) (Slashed with CS 59995) Special topics from all areas of computer science.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CS 49996 INDIVIDUAL STUDY 1-4 Credit Hours

(Repeatable for credit).

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-4 other

Grade Mode: Standard Letter

CS 49998 RESEARCH (ELR) 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with computer science under the supervision of a faculty member. The work for this course should result in a technical report, paper, presentation or some other appropriate product.

Prerequisite: Special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

CS 49999 CAPSTONE PROJECT (ELR) (WIC) 4 Credit Hours

This course is an integrative experience that brings together all components of the undergraduate computer science curriculum in an applied, hands-on real-world setting.

Prerequisite: CS 33007 and CS 33901 and CS 35201.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab, Project or Capstone

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

CS 50510 INTRODUCTION TO NATURAL LANGUAGE PROCESSING 3 Credit Hours

(Cross-listed with MCLS 50510)(Slashed with CS 40510, CS 70510, MCLS 40510 and MCLS 70510) This course provides an introduction to natural language processing, discusses methods to analyze translation product and translation process data and applies and evaluates machine learning methods on natural language data. Students use tools to transform texts into structured representations that are elementary for numerous applications, artificial intelligence, data analytics and predictive modeling. Knowledge of Python is strongly encouraged, but not required.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 52201 NUMERICAL LINEAR ALGEBRA 3 Credit Hours

(Cross-listed with MATH 52201)(Slashed with CS 42201 and MATH 42201) Fundamentals of numerical linear algebra; solving linear systems; QR factorization and least squares; iterative methods for eigenvalue problems.

Prerequisite: Computer Science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 52202 NUMERICAL APPROXIMATION AND OPTIMIZATION 3 Credit Hours

(Cross-listed with MATH 52202)(Slashed with CS 42202 and MATH 42202) This course introduces numerical methods for solving nonlinear equations, optimizing functions, performing interpolation, computing differentiation and integration and solving differential equations.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53118 GRAPH AND SOCIAL NETWORK ANALYSIS 3 Credit Hours

(Slashed with CS 43118 and CS 73118) This course covers a number of important and useful ideas in graph databases, especially in social networks (e.g. the data model for certain-uncertain graphs), indexing over graphs, and query processing algorithms for graph databases (e.g., single-source path queries, path queries, reachability queries, keyword search queries, subgraph matching, etc.). The influence maximization problems over social networks in real applications are also discussed as well as various queries over the distributed graph databases.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53202 SYSTEMS ADMINISTRATION 3 Credit Hours

(Slashed with CS 43202) The setting up and day-to-day administration of multiuser multitasking systems, such as the various versions of UNIX together with the analysis of problems which can arise in these activities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53203 SYSTEMS PROGRAMMING 3 Credit Hours

(Slashed with CS 43203) This course provides an in-depth exploration of the Unix/Linux operating system's structure while teaching students how to write system and network programs. It is ideal for those interested in developing system software for Unix/Linux or gaining a deeper understanding of a multi-tasking, multi-user operating system. The course covers key topics, including the file system, terminal and device input/output, multi-tasking, inter-process communication, video display management and network programming. Theoretical concepts are integrated with practical examples of how Unix implements them. By the end of the course, students have the skills to understand how most Unix commands function and are capable of drafting their own versions of many common commands.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53301 SOFTWARE DEVELOPMENT FOR ROBOTICS 3 Credit Hours

(Slashed with CS 43301) Robots are being used in multiple places that are not easily accessible for humans to support the lack of available labor and gain extra precision, and for cost-effective manufacturing processes, monitoring, space exploration, precision surgery and artificial limb support for elderly and physically challenged persons. Computer science is an integral part of robotics as it includes areas such as computer algorithms, artificial intelligence and image processing, which are essential aspects of robotics. This first course on robotics teaches students various motions of rigid robots; mathematics and algorithms related to these motions; motion planning; obstacle avoidance; and intelligent path planning, including the use of various sensors. In addition, students learn Robot Operating System (ROS) and ROS programming which provide a structured, modular and well-supported environment that facilitates understanding and experimentation in the field of robotics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53302 ALGORITHMIC ROBOTICS 3 Credit Hours

(Slashed with CS 43302 and CS 73302) This course provides students theoretical, mathematical, and practical foundations for the design, analysis, and evaluation of algorithms for robots for diverse robotic applications. We will focus on a principled and mathematically sound approach to the design of algorithms for robots rather than ad hoc and hacking development approaches.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53303 INTERNET OF THINGS 3 Credit Hours

(Slashed with CS 43303 and CS 73303) This course will provide a comprehensive understanding of the Internet of Things by looking into a variety of real-world application scenarios, existing and new technologies and architectures, communication protocols and standardization efforts, societal and behavioral changes, and how to apply these technologies to tackle real-world problems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53305 ADVANCED DIGITAL DESIGN 3 Credit Hours

(Slashed with CS 43305) This course describes techniques in the design of digital systems. Topics covered include combinational and sequential logic, gate-level minimization, registers and counters, memory and programmable logic, hardware description languages, digital communication including serial and parallel and synchronous and asynchronous methods.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53334 HUMAN-ROBOT INTERACTION 3 Credit Hours

(Slashed with CS 43334 and CS 73334) Human-Robot Interaction (HRI) is the study of interactions between humans and robots dedicated to understanding, designing, and evaluating robotic systems for use by and with humans. HRI is a multidisciplinary field that incorporates human-computer interaction, artificial intelligence, robotics, natural language understanding, design, and social sciences. Interaction between humans and robots may take several forms, but are generally categorized by how close in proximity the humans and robots are to each other such as remote, proximate, and hybrid interaction. In the class, students will learn the fundamental technologies and theories in each category, and blend this knowledge with various case studies and lab activities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 53401 SECURE PROGRAMMING 3 Credit Hours

Code vulnerabilities, static code analysis, error handling, secure I/O, race conditions and mediation, handling buffer and integer overflow, handling vulnerabilities in web and database programming, privacy and cryptography, random number generators.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 54001 COMPUTER SCIENCE III - PROGRAMMING PATTERNS 4 Credit Hours

(Slashed with CS 44001) Extends students' knowledge of object-oriented programming, and improves their C++ programming skills. Specifically, the course covers procedural and object-based programming, inheritance, polymorphism, popular design patterns and generic programming.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

CS 54003 MOBILE APPS IN IOS PROGRAMMING 3 Credit Hours

Students are introduced to mobile applications programming in the iOS environment using model, view, controller paradigms. Other topics include swift, programming using on board devices like GPS, cameras, motion detectors, and screen touches.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 54004 DRONE PROGRAMMING 3 Credit Hours

(Slashed with CS 44004) This course describes the design, programming and control of autonomous drones. Topics covered include drone software and hardware architecture, use case models, interoperability, trajectory programming, flight control programming and sensors. Students apply this knowledge in the context of programming assignments with a drone simulator. Subsequently, students develop custom programs designed to control and fly autonomous drones.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 54105 WEB PROGRAMMING I 3 Credit Hours

(Slashed with CS 44105) This course is the first of a two-course sequence on Web Programming covering from basic to advanced topics on Web Programming based on open standards and best practices. Topics covered include the HyperText Markup Language (HTML), specifying look and feel using Cascading Style Sheets (CSS), client side programming in Javascript, server side programming in PHP, and the Hypertext Transfer Protocol (HTTP).

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 54106 WEB PROGRAMMING II 3 Credit Hours

(Slashed with CS 44106) This course is the second of a two-course sequence on Web Programming covering advanced topics on Web Programming based on open standards and practices. This is a project course exploring advanced aspects of Web programming. Topics covered include advanced server side programming in PHP; database driven websites; structured query language (SQL) and MySQL; E-commerce; web hosting using Apache, PHP MySQL; basic and digest authentication; web security, encryption and digital certificates; Markup Language (XML) for the web, AJAX and web services; scalable vector graphics (SVG); websites.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 54201 ARTIFICIAL INTELLIGENCE 3 Credit Hours

(Slashed with CS 44201) Computational intelligence concepts and methods such as modeling real-world problems as state-space search problems; heuristics and meta-heuristics search; game playing and adversarial search; constraint-based optimization and search; automated machine learning such as clustering, neural networks, regression analysis, decision trees, Markov models and HMM; Deep neural networks and its application in speech and image understanding; logical inference techniques, fuzzy systems, case-based reasoning and uncertainty based reasoning; Knowledge-based systems; planning techniques and systems

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 54202 MACHINE LEARNING AND DEEP LEARNING 3 Credit Hours

(Slashed with CS 44202) This course provides an overview of some fundamental concepts, techniques and algorithms in machine learning and deep learning, and will give students a basic understanding (ideas and intuitions) of how modern machine learning works. Specifically, there are three main objectives: 1. To help student get familiar with the fundamental mathematical tools (linear algebra, probability theory, statistical inference, numerical optimization, and learning theory) which lays the foundation of machine learning algorithms and techniques; 2. To introduce the core machine learning concepts and topics, such as linear regression, classification, SVM, and neural networks (and its deep variants); in addition, we will utilize the recommendation system for students to learn how real world machine system works; 3. Teach students how to program and use the latest machine learning packages, such as Tensorflow.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 54902 SOFTWARE REQUIREMENTS ENGINEERING 3 Credit Hours

(Slashed with CS 44902) Students will learn a systematic approach to requirements elicitation, envisioning, requirements engineering, while leveraging design-based ideation and validation. Topics include software and systems requirements engineering, interface design and modeling, systems architecture, performance engineering, ethics, systems verification and testing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 55102 CENTRAL PROCESSING UNIT (CPU) ARCHITECTURES 3 Credit Hours

(Slashed with CS 45102) This course explores CPU architectures and concepts, focusing mostly on general purpose CPUs. It begins by examining the x86 architecture, the origins of reduced instruction set computers, and how those diverse concepts were reconciled. It looks at superscalar execution, out-of-order execution, branch prediction, and speculative execution, and their use in the Intel Pentium Pro and Pentium II. Finally, it concludes by exploring some contemporary CPU architectures such as embedded processors, graphics processors, and the open-source RISC-V architecture.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 55203 COMPUTER NETWORK SECURITY 3 Credit Hours

(Slashed with CS 45203) Overview of network security including attacks and vulnerabilities and defense measures, secure network design, network and transport layers security, intrusion detection techniques, defense against denial of service attacks, network hardware, software, and applications attacks and their defense, security policies, legal and ethical issues in cyber and computer crimes.

Prerequisite: CS 57221; and Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 55231 INTERNET ENGINEERING 3 Credit Hours

(Slashed with CS 45231) Design fundamentals and working principles of internet systems at the IP layer and above. DNS, inter-domain routing, internet client server programming, application-level protocols (HTTP, XML, etc.), web server architecture, browser, internet security and multimedia serving.

Prerequisite: CS 23001; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 56101 DESIGN AND ANALYSIS OF ALGORITHMS 3 Credit Hours

(Slashed with CS 46101) Introduction to algorithmic concepts, design and complexity analysis of algorithms and data structures, searching, sorting, graph and string algorithms.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 57101 COMPUTER GRAPHICS 3 Credit Hours

(Slashed with CS 47101) Display file generation, interactive graphics techniques, display devices, three-dimensional graphics, graphic system design, graphic languages and applications in man-machine communications.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 57102 COMPUTER HAPTICS 3 Credit Hours

(Slashed with CS 47102 and CS 77102) This course introduces students to computer haptics which is the study of touch with a focus on computing, developing algorithms and designing new user interfaces, innovatively enhancing existing human-computer systems. This course is organized into modules that include fundamental concept and theory lectures and practical programming assignments, including a term project with real haptic (touch feedback) devices combined with virtual reality display devices.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 57205 INFORMATION SECURITY 3 Credit Hours

(Slashed with CS 47205) An introduction to concepts and methodology useful for information security, as specified by the NSTISSI NO. 4011 standard from the NSA.

Prerequisite: CS 57221; and Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 57206 DATA SECURITY AND PRIVACY 3 Credit Hours

(Slashed with CS 47206) The goal of the course is to familiarize the students with basic concepts of security and privacy, their definitions, applications and current advances in research community and industry. This course addresses the security and privacy issues in legacy systems and also studies security and privacy policies and legislations. This course also reviews current research projects in the area of security and privacy.

Prerequisite: CS 57221; and Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 57207 DIGITAL FORENSICS 3 Credit Hours

(Slashed with CS 47207) This course addresses the need for digital forensics, best practices for general incidence response, legal aspects of forensics, tools and techniques to perform a full computer forensic investigation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 57221 INTRODUCTION TO CRYPTOLOGY 3 Credit Hours

(Slashed with CS 47221) This is a course on the modern science of Cryptology; that is, the process of hiding information by converting it, through a reversible process, into something unrecognizable. Of course, only the recipient should be able to reverse the "hiding" or encrypting process. As far as usage in life is concerned, this course will help you to set up cryptosystems in many different environments. This skill is highly employable; from the NSA, to banks, to anybody who needs to encrypt information is looking for people with knowledge in Cryptology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 59893 VARIABLE TITLE WORKSHOP IN COMPUTER SCIENCE 1-6 Credit Hours

(Repeatable for credit) Studies in special topics in computer science.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

CS 59995 SPECIAL TOPICS IN COMPUTER SCIENCE 1-3 Credit Hours

(Repeatable for credit) (Slashed with CS 49995) Various special courses will be announced in the schedule of classes under this title.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CS 60093 VARIABLE TITLE WORKSHOP IN COMPUTER SCIENCE 1-3 Credit Hours

(Repeatable for credit) Studies of special topics in computer science.

Not acceptable for credit toward a graduate degree in computer science without approval of the student's adviser.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

CS 61002 ALGORITHMS AND PROGRAMMING I 4 Credit Hours

This course is designed for graduate students with little knowledge of the undergraduate computer science curriculum. It is suitable for students with a background in engineering, physics, biology, geography, etc. This course is designed to introduce students to mapping scientific problems in their field of study into the computational framework. The primary purpose of this course is to help students become skillful in making the computer do what they want it to do. This course provides students with hands-on tools to develop computational methods for data modeling and analysis using Python packages such as Numpy and Matplotlib.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CS 61003 ALGORITHMS AND PROGRAMMING II 4 Credit Hours

Further exploration into the tools used in computer science. This course provides an introduction to algorithmic concepts and covers the design and complexity analysis of algorithms and data structures, searching, sorting, graph and string algorithms.

Prerequisite: CS 61002; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CS 61004 OPERATING SYSTEMS AND ARCHITECTURE 4 Credit Hours

This course introduces the fundamentals of modern computing systems. It covers the basic architecture, operating system that manages the underlying hardware and basic network that now enables building of networked computing systems. Students learn about key hardware and software components that make up computer and network internals and their essential functions, and learn how these work together as a whole to make computing systems that run efficiently, reliably and securely. This course is suitable for students who may not have an undergraduate degree in computer science or closely related areas.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CS 61092 PRACTICUM IN CS FOR INFORMATION ARCHITECTURE AND KNOWLEDGE MANAGEMENT 1-5 Credit Hours

(Repeatable for credit) This course is an alternative to IAKM 60198 for students interested in pursuing a CS thesis. Credit for IAKM 60198 or any other project course is not allowed.

Prerequisite: Graduate standing.

Schedule Type: Practical Experience

Contact Hours: 1-5 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 61199 THESIS I FOR INFORMATION ARCHITECTURE AND KNOWLEDGE MANAGEMENT 2-6 Credit Hours

Thesis students must register for a minimum of 6 hours. No credit for CS students.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 61299 THESIS II FOR INFORMATION ARCHITECTURE AND KNOWLEDGE MANAGEMENT STUDENTS 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: CS 61199.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 63005 ADVANCED DATABASE SYSTEMS DESIGN 3 Credit Hours

(Slashed with CS 73005) Introduction to a variety of advanced database topics and on-going trends in modern database systems. The course includes advanced issues of object-oriented database, XML, advanced client server architecture and distributed database techniques.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 63015 DATA MINING TECHNIQUES 3 Credit Hours

(Slashed with CS 73015) Concepts and techniques of data mining. Data mining is a process of discovering information from a set of large databases. This course takes a database perspective on data mining.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 63016 BIG DATA ANALYTICS 3 Credit Hours

(Slashed with CS 73016) Introduces computing platforms with focus on how to use them in processing, managing and analyzing massive datasets. Utilizes several key data processing tasks, including simple statistics, data aggregation, join processing, frequent pattern mining, data clustering, information retrieval, pagerank and massive graph analytics as the case study for large scale data processing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 63018 PROBABILISTIC DATA MANAGEMENT 3 Credit Hours

(Slashed with CS 73018) This course addresses the fundamental concepts and techniques for probabilistic data management in the area of databases. Probabilistic data are pervasive in many real-world applications, such as sensor networks, GPS system, location-based services, mobile computing, multimedia databases, data extraction and integration, trajectory data analysis, semantic web, privacy preserving, and so on. This class also covers major research topics such as probabilistic or uncertain data models, probabilistic queries, probabilistic query answering techniques, and data quality issues in databases.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 63100 COMPUTATIONAL HEALTH INFORMATICS 3 Credit Hours

(Slashed with CS 73100) The course describes computational techniques and software tools for managing and transmitting health related information and automated analysis of medical and biosignal data.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 63201 ADVANCED OPERATING SYSTEMS 3 Credit Hours

(Slashed with CS 73201) Introduction to distributed systems, interprocess communication, distributed mutual exclusion, synchronization and deadlock, distributed process management and distributed file systems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 63305 MULTICORE COMPUTING 3 Credit Hours

(Slashed with CS 73305) Starting about 2005, hardware architects began putting more than one processing core on a single chip, leading to the recent rapid advancements in multicore processor architectures. This shift has changed almost everything ranging from memory hierarchy and consistency to programming those architectures. The goal of this course is to study multicore processor architectures from the perspective of hardware, software and algorithm design, the challenges, and the technologies that are relevant to those architectures.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 63901 SOFTWARE ENGINEERING METHODOLOGIES 3 Credit Hours

(Slashed with CS 73901) Software process models; modeling languages; software process improvement; requirement analysis and elicitation; advanced systems and architectural design; estimation; verification and validation; reuse; and metrics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 63902 SOFTWARE EVOLUTION 3 Credit Hours

(Slashed with CS 73902) Methods and techniques supporting later lifecycle activities, including software testing and maintenance, reuse and reverse engineering.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 64201 ADVANCED ARTIFICIAL INTELLIGENCE 3 Credit Hours

(Slashed with CS 74201) Advanced topics in AI such as Nature inspired meta-heuristics and their applications in real-world optimization problems; Bayesian networks and probabilistic reasoning over time with applications; Utility theory and decision networks and their applications; game theory and multi-agent systems and their applications; Advanced learning theory such as statistical learning, reinforced learning, probabilistic learning, deep convolution neural network, recurrent neural network, Long Short-term Memory (LSTM), transfer learning, federated learning, transformers, and their application to vision and speech understanding; introduction to object recognition, scene analysis and object tracking; introduction to speech understanding; Context-based discourse and conversation analysis; multi-modal emotion recognition.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 64401 IMAGE PROCESSING 3 Credit Hours

(Slashed with CS 74401) This course covers digital processing of digital imagery. Digitization of TV imagery, noise removal, image enhancement, edge and texture detection, object recognition and scene analysis.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 65101 ADVANCED COMPUTER ARCHITECTURE 3 Credit Hours

(Slashed with CS 75101) System performance measures, processor implementation, pipelining, system interconnection, memory hierarchy interrupts, stack architecture, vector and multiprocessors.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 65202 ADVANCED COMMUNICATION NETWORKS 3 Credit Hours

(Slashed with CS 75202) This course covers central problems that confront network designers in high-speed networking such as real-time traffic, congestion control, quality of service (QoS), performance analysis, traffic management and internet routing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 65203 WIRELESS AND MOBILE COMMUNICATION NETWORKS 3 Credit Hours

(Slashed with CS 75203) Examines how wireless systems work and how mobile systems are supported by the underlying network infrastructure. Course covers the architecture and the interactions among different functional units in wireless and mobile systems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 66101 ADVANCED TOPICS IN ALGORITHMS 3 Credit Hours

(Slashed with CS 76101) Study of different advanced techniques and methods for designing efficient algorithms for solving computational problems, advanced techniques for analyzing computational complexities of algorithms and of algorithmic problems themselves, advanced techniques for proving correctness of algorithms and new modern trends and challenges in design and analysis of algorithms.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 66110 COMPUTATIONAL GEOMETRY 3 Credit Hours

(Slashed with CS 76110) Geometric structures are the underlying model of several important applications, including robotics, graphics, CAD/CAM, VLSI layout, wireless networks and information visualization. Computational geometry studies algorithms for geometric problems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 67101 ADVANCED COMPUTER GRAPHICS 3 Credit Hours

(Slashed with CS 77101) In-depth study of active research topics in computer graphics. Topics include volume rendering, image-based rendering and modeling, graphics architectures, virtual reality, modeling in computer graphics, non-photorealistic rendering, computer animation and computer games.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 67301 SCIENTIFIC VISUALIZATION 3 Credit Hours

(Slashed with CS 77301) Discusses the visualization of scientific, engineering and medical data sets. Introduces mechanisms to acquire sampled or computed data and points out methods to transform these data into the visual system.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 67302 INFORMATION VISUALIZATION 3 Credit Hours

(Slashed with CS 77302) Information visualization is the science that unveils the underlying structure of data sets using visual representations that utilize the powerful processing capabilities of the human visual perceptual system. In this class, we will study algorithms and systems for visually exploring, understanding, and analyzing large, complex data sets. Information visualization focuses on abstract data such as symbolic, tabular, networked, hierarchical, or textual information sources. The objectives of the course are to learn the principles involved in information visualization and a variety of existing techniques and systems. The students will also gain backgrounds and skills that will aid the design of new, innovative visualizations in realistic applications.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 69098 RESEARCH 1-5 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits are applied toward degree requirements with approval if grade of "S" is given.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-5 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 69099 CAPSTONE PROJECT 3,6 Credit Hours

(Repeatable for credit) This course is an integrative experience that brings together all components of the master's non-thesis graduate program in an applied, hands-on, real-world setting.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 3-6 other

Grade Mode: Satisfactory/Unsatisfactory

CS 69191 MASTER'S SEMINAR 1-2 Credit Hours

(Repeatable for credit) Seminar for masters students to present and discuss computer science related research and academics. Masters students are required to take at least 2 credit hours for completion of degree and make at least one presentation of project work or research. Only two credits count towards the masters degree.

Prerequisite: Computer Science major within the Master of Arts or Master of Science degree.

Schedule Type: Seminar

Contact Hours: 1-2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 69192 GRADUATE INTERNSHIP 1-3 Credit Hours

(Repeatable for credit) Supervised experience in the chosen graduate program. Since this work will be outside the department, a report and a final presentation will be required.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 69199 THESIS I 2-6 Credit Hours

Thesis student must register for total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 69299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: CS 69199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 69995 SPECIAL TOPICS IN COMPUTER SCIENCE 1-3 Credit Hours

(Slashed with CS 79995)(Repeatable for credit) Special topics in computer science.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CS 70510 INTRODUCTION TO NATURAL LANGUAGE PROCESSING 3 Credit Hours

(Cross-listed with MCLS 70510)(Slashed with CS 40510, CS 50510, MCLS 40510 and MCLS 50510) This course provides an introduction to natural language processing, discusses methods to analyze translation product and translation process data and applies and evaluates machine learning methods on natural language data. Students use tools to transform texts into structured representations that are elementary for numerous applications, artificial intelligence, data analytics and predictive modeling. Knowledge of Python is strongly encouraged, but not required.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73005 ADVANCED DATABASE SYSTEMS DESIGN 3 Credit Hours
(Slashed with CS 63005) Introduction to a variety of advanced database topics and on-going trends in modern database systems. The course includes advanced issues of object-oriented database, XML, advanced client server architecture and distributed database techniques.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73015 DATA MINING TECHNIQUES 3 Credit Hours

(Slashed with CS 63015) Concepts and techniques of data mining. Data mining is a process of discovering information from a set of large databases. This course takes a database perspective on data mining.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73016 BIG DATA ANALYTICS 3 Credit Hours

Introduces computing platforms with the focus on how to utilize them in processing, managing and analyzing massive datasets. The course will utilize several key data processing tasks, including simple statistics, data aggregation, join processing, frequent pattern mining, data clustering, information retrieval, pagerank, and massive graph analytics as the case study for large scale data processing.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73018 PROBABILISTIC DATA MANAGEMENT 3 Credit Hours

(Slashed with CS 63018) This course addresses the fundamental concepts and techniques for probabilistic data management in the area of databases. Probabilistic data are pervasive in many real-world applications, such as sensor networks, GPS system, location-based services, mobile computing, multimedia databases, data extraction and integration, trajectory data analysis, semantic web, and privacy preserving. This class also covers major research topics such as probabilistic or uncertain data models, probabilistic queries, probabilistic query answering techniques, and data quality issues in databases.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73100 COMPUTATIONAL HEALTH INFORMATICS 3 Credit Hours

(Slashed with CS 63100) The course describes computational techniques and software tools for managing and transmitting health related information and automated analysis of medical and biosignal data.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73118 GRAPH SOCIAL NETWK ANALYSIS 3 Credit Hours

(Slashed with CS 43118 and CS 53118) This course covers a number of important and useful ideas in graph databases, especially in social networks (e.g. the data model for certain-uncertain graphs), indexing over graphs, and query processing algorithms for graph databases (e.g., single-source path queries, path queries, reachability queries, keyword search queries, subgraph matching, etc.). The influence maximization problems over social networks in real applications are also discussed as well as various queries over the distributed graph database.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73201 ADVANCED OPERATING SYSTEMS 3 Credit Hours

(Slashed with CS 63201) Introduction to distributed systems, interprocess communication, distributed mutual exclusion, synchronization and deadlock, distributed process management and distributed file systems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73302 ALGORITHMIC ROBOTICS 3 Credit Hours

(Slashed with CS 43302 and CS 53302) This course provides students theoretical, mathematical, and practical foundations for the design, analysis, and evaluation of algorithms for robots for diverse robotic applications. We will focus on a principled and mathematically sound approach to the design of algorithms for robots rather than ad hoc and hacking development approaches.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73303 INTERNET OF THINGS 3 Credit Hours

(Slashed with CS 43303 and CS 53303) This course will provide a comprehensive understanding of the Internet of Things by looking into a variety of real-world application scenarios, existing and new technologies and architectures, communication protocols and standardization efforts, societal and behavioral changes, and how to apply these technologies to tackle real-world problems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73305 MULTICORE COMPUTING 3 Credit Hours

(Slashed with CS 63305) Starting about 2005, hardware architects began putting more than one processing core on a single chip, leading to the recent rapid advancements in multicore processor architectures. This shift has changed almost everything ranging from memory hierarchy and consistency to programming those architectures. The goal of this course is to study multicore processor architectures from the perspective of hardware, software, and algorithm design, the challenges, and the technologies that are relevant to those architectures.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73334 HUMAN-ROBOT INTERACTION 3 Credit Hours

(Slashed with CS 43334 and CS 53334) Human-Robot Interaction (HRI) is the study of interactions between humans and robots dedicated to understanding, designing, and evaluating robotic systems for use by and with humans. HRI is a multidisciplinary field that incorporates human-computer interaction, artificial intelligence, robotics, natural language understanding, design, and social sciences. Interaction between humans and robots may take several forms, but are generally categorized by how close in proximity the humans and robots are to each other such as remote, proximate, and hybrid interaction. In the class, students will learn the fundamental technologies and theories in each category, and blend this knowledge with various case studies and lab activities.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73901 SOFTWARE ENGINEERING METHODOLOGIES 3 Credit Hours

(Slashed with CS 63901) Software process models; modeling languages; software process improvement; requirement analysis and elicitation; advanced systems and architectural design; estimation; verification and validation reuse; and metrics.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 73902 SOFTWARE EVOLUTION 3 Credit Hours

(Slashed with CS 63902) Methods and techniques supporting later lifecycle activities, including software testing and maintenance reuse and reverse engineering.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 74201 ADVANCED ARTIFICIAL INTELLIGENCE 3 Credit Hours

(Slashed with CS 64201) Advanced topics in AI such as Nature inspired meta-heuristics and their applications in real-world optimization problems; Bayesian networks and probabilistic reasoning over time with applications; Utility theory and decision networks and their applications; game theory and multi-agent systems and their applications; Advanced learning theory such as statistical learning, reinforced learning, probabilistic learning, deep convolution neural network, recurrent neural network, Long Short-term Memory (LSTM), transfer learning, federated learning, transformers, and their application to vision and speech understanding; introduction to object recognition, scene analysis and object tracking; introduction to speech understanding; Context-based discourse and conversation analysis; multi-modal emotion recognition.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 74401 IMAGE PROCESSING 3 Credit Hours

(Slashed with CS 64401) This course covers digital processing of digital imagery. Digitization of TV imagery, noise removal, image enhancement, edge and texture detection, object recognition and scene analysis.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 75101 ADVANCED COMPUTER ARCHITECTURE 3 Credit Hours

(Slashed with CS 65101) System performance measures, processor implementation, pipelining, system interconnection, memory hierarchy interrupts, stack architecture, vector and multiprocessors.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 75202 ADVANCED COMMUNICATION NETWORKS 3 Credit Hours

(Slashed with CS 65202) This course covers central problems that confront network designers in high-speed networking such as real-time traffic, congestion control, quality of service (QoS), performance analysis, traffic management and internet routing.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 75203 WIRELESS AND MOBILE COMMUNICATION NETWORKS 3 Credit Hours

(Slashed with CS 65203) Examines how wireless systems work and how mobile systems are supported by the underlying network infrastructure. Course covers the architecture and the interactions among different functional units in wireless and mobile systems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 76101 ADVANCED TOPICS IN ALGORITHMS 3 Credit Hours

(Slashed with CS 66101) Study of different advanced techniques and methods for designing efficient algorithms for solving computational problems, advanced techniques for analyzing computational complexities of algorithms and of algorithmic problems themselves, advanced techniques for proving correctness of algorithms, and new modern trends and challenges in design and analysis of algorithms.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 76110 COMPUTATIONAL GEOMETRY 3 Credit Hours

(Slashed with CS 66110) Geometric structures are the underlying model of several important applications, including robotics, graphics, CAD/CAM, VLSI layout, wireless networks and information visualization. Computational geometry studies algorithms for geometric problems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 77101 ADVANCED COMPUTER GRAPHICS 3 Credit Hours

(Slashed with CS 67101) In-depth study of active research topics in computer graphics. Topics include volume rendering, image-based rendering and modeling, graphics architectures, virtual reality, modeling in computer graphics, non-photorealistic rendering, computer animation and computer games.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 77102 COMPUTER HAPTICS 3 Credit Hours

(Slashed with CS 47102 and CS 57102) This course introduces students to computer haptics which is the study of touch with a focus on computing, developing algorithms and designing new user interfaces, innovatively enhancing existing human-computer systems. This course is organized into modules that include fundamental concept and theory lectures and practical programming assignments, including a term project with real haptic (touch feedback) devices combined with virtual reality display devices.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 77301 SCIENTIFIC VISUALIZATION 3 Credit Hours

(Slashed with CS 67301) Discusses the visualization of scientific, engineering and medical data sets. Introduces mechanisms to acquire sampled or computed data and points out methods to transform these data into the visual system.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 77302 INFORMATION VISUALIZATION 3 Credit Hours

(Slashed with CS 67302) Information visualization is the science that unveils the underlying structure of data sets using visual representations that utilize the powerful processing capabilities of the human visual perceptual system. In this class, we will study algorithms and systems for visually exploring, understanding, and analyzing large, complex data sets. Information visualization focuses on abstract data such as symbolic, tabular, networked, hierarchical, or textual information sources. The objectives of the course are to learn the principles involved in information visualization and a variety of existing techniques and systems. The students will also gain backgrounds and skills that will aid the design of new, innovative visualizations in realistic applications.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CS 79995 SPECIAL TOPICS IN COMPUTER SCIENCE 1-3 Credit Hours

(Slashed with CS 69995)(Repeatable for credit) Special topics in computer science.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CS 89098 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed their candidacy examinations. The work for this course should result in a paper, presentation or some other appropriate product.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 89191 DOCTORAL SEMINAR 1-2 Credit Hours

(Repeatable for credit) Seminar for doctoral students to present and discuss computer science related research and academics. Doctoral students are required to take at least 3 credit hours for completion of degree and make at least two presentations of project work or research. Only two credits count towards the doctoral degree.

Prerequisite: Computer Science major within the Doctor of Philosophy degree.

Schedule Type: Seminar

Contact Hours: 1-2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 89199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required, first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 89299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required for doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: CS 89199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CS 89991 RESEARCH SEMINAR IN COMPUTER SCIENCE 1-3 Credit Hours

(Repeatable for credit) Research seminar on current research in computer science.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Department of Earth Sciences

Earth Science (ESCI)

ESCI 11040 HOW THE EARTH WORKS (KBS) 3 Credit Hours

Explores processes that shape Earth's landscapes (e.g., volcanism, flooding, landslides, sea-level rise, mountain building) and that are of vital interest to humans (e.g., earthquakes, groundwater, energy and mineral resources, climate change).

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, TAG Science, Transfer Module Natural Sciences

ESCI 11041 HOW THE EARTH WORKS LABORATORY (KBS) (KLAB) 1 Credit Hour

Students study earth materials (e.g., mineral crystals, common and unusual rock specimens) and Google Earth images. Students conduct experiments demonstrating processes at earth's surface such as groundwater pollution, flooding and earthquakes.

Pre/corequisite: ESCI 11040.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science, Transfer Module Natural Sciences, TAG Natural Science Lab

ESCI 11042 EARTH AND LIFE THROUGH TIME (KBS) 3 Credit Hours

Explores major events in the history of Earth, including mass extinctions, Snowball Earth hypothesis, birth and death of oceans, growth of continents, explosion of life, dinosaurs and the inter-relatedness of earth and life processes.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, TAG Science, Transfer Module Natural Sciences

ESCI 11043 EARTH AND LIFE THROUGH TIME LABORATORY (KBS) (KLAB) 1 Credit Hour

Students conduct lab experiments involving fossils, rocks and sedimentary features, a river process simulator and the concept of deep time.

Pre/corequisite: ESCI 11042.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science, Transfer Module Natural Sciences, TAG Natural Science Lab

ESCI 21062 ENVIRONMENTAL EARTH SCIENCE (KBS) 3 Credit Hours

Application of Earth science to environmental problems, including natural resource extraction, water supply, pollution, waste disposal, landslides, floods and land use planning.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

ESCI 21080 ALL ABOUT THE OCEANS (KBS) 3 Credit Hours

Explores the many fascinating (and some still little known) features and processes of the Earth's oceans, including mid-ocean ridges, hydrothermal vents, tsunamis, tides, rogue waves, marine life and the role of the ocean in climate change.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

ESCI 22000 DEGREE AND CAREER PATHS IN EARTH SCIENCES (ELR) 1 Credit Hour

Provides students with an overview of career paths and opportunities in the Geology and Earth Science majors. Components of the course include a journal club; informational presentations by geoscientists in industry, government and academia; and skills training needed for the majors.

Required overnight field trip.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ESCI 23063 EARTH MATERIALS I 4 Credit Hours

Occurrence, associations, characteristics, crystallography and crystal chemistry of common minerals. Laboratory identification emphasizing physical properties. Required field trip.

Prerequisite: ESCI 11041 or ESCI 11043.

Pre/corequisite: CHEM 10058 or CHEM 10060.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

Attributes: TAG Science

ESCI 31070 EARTH MATERIALS II (WIC) 4 Credit Hours

Occurrence and origin of igneous, sedimentary and metamorphic rocks. Laboratory identification, description and classification of hand specimens. Required field trip.

Prerequisite: ESCI 23063.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

ESCI 31080 STRUCTURAL GEOLOGY 4 Credit Hours

Mechanical principles of rock deformation. Structures in sedimentary igneous and metamorphic rocks. Required field trip.

Prerequisite: ESCI 11041 or ESCI 11043.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 32066 GEOMORPHOLOGY 4 Credit Hours

Earth's surface features as functions of geological structures, processes and time. Landform analysis using topographic maps and some stereographic aerial photos. Trigonometry recommended.

Prerequisite: ESCI 11041 or ESCI 11043.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 33025 WATER AND THE ENVIRONMENT 3 Credit Hours

How water moves on the surface and in the subsurface, with an emphasis on societal issues such as pollution, the conservation and management of water resources, and the impacts of environmental change.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 34061 PRINCIPLES OF PALEONTOLOGY 4 Credit Hours

Concepts applied to study of commonly preserved invertebrate organisms; identification of common North American fossils. Required field trip.

Prerequisite: BSCI 10002 or BSCI 10110 or ESCI 11043.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 40095 SELECTED TOPICS IN EARTH SCIENCES 1-3 Credit Hours

(Slashed with ESCI 50095 and ESCI 70095)(Repeatable for credit)

Selected topics presented by visiting professors or one-time offerings presented by regular faculty.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ESCI 40096 INDIVIDUAL INVESTIGATION IN EARTH SCIENCES 1-3 Credit Hours

(Repeatable for credit) Directed field, laboratory and/or library research. Written report required. Maximum 3 credit hours applied toward bachelor's degree.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ESCI 40380 BIOGEOCHEMISTRY 3 Credit Hours

(Cross-listed with BSCI 40380)(Slashed with BSCI 50380, BSCI 70380 and ESCI 50380) This course explores the chemical, physical, geological and biological processes and reactions that shape the world around us, and provides tools for understanding human alterations to global systems. Throughout this course, students explore elemental cycles of diverse terrestrial and aquatic ecosystems, as well as assess how humans have drastically altered these elemental cycles on a global scale and the implications of these changes for biological systems.

Prerequisite: Minimum C grade in the following courses: (BSCI 10110 and BSCI 10120) or (ESCI 11041 or ESCI 11043); and (CHEM 10058 or CHEM 10060) and CHEM 10062.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 41073 GEOLOGY OF OHIO 3 Credit Hours

(Slashed with ESCI 51073) Minerals, rocks, fossils, structural geology, physiography, environmental geology and geologic resources. Required field trips. Does not count toward the Geology major.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 41077 GEOLOGY OF THE NATIONAL PARKS 3 Credit Hours

(Slashed with ESCI 51077) Introduction to the geology of selected major national parks, emphasizing basic geological principles and the processes that have produced the spectacular scenery, rocks and fossils in each park. Does not count toward the Geology major.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 41079 ALL ABOUT DINOSAURS 3 Credit Hours

Dinosaurs (and some relatives) and their world, emphasizing how to interpret evidence concerning their history, biology and evolutionary relationships. Does not count toward the Geology major.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 41080 TECTONICS AND OROGENY 3 Credit Hours

(Slashed with ESCI 51080 and ESCI 71080) This course examines the forces that drive plate motions and mountain building; techniques for reconstructing those motions over a range of time scales; and how the lithosphere deforms and drives rock creation and destruction at plate boundaries, particularly in the Western United States and Appalachians. Required field trip to the Appalachians.

Prerequisite: ESCI 31080.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 41085 MASS EXTINCTIONS: CAUSES AND CONSEQUENCES 3 Credit Hours

(Slashed with ESCI 51085 and ESCI 71085) Investigation of the causes and consequences of extinction in marine and terrestrial ecosystems using paleontological, geochemical, sedimentological and stratigraphical information; emphasizing an Earth system science approach to the Big Five mass extinctions, as well as the possible sixth extinction occurring now.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 42030 REMOTE SENSING 3 Credit Hours

(Cross-listed with GEOG 49230, GEOG 59230, GEOG 79230) (Slashed with ESCI 52030, ESCI 72030) Computer analysis of multispectral satellite datasets. Applications in terrestrial earth science are emphasized.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 42035 DATA ANALYSIS IN THE EARTH SCIENCES 3 Credit Hours

(Slashed with ESCI 52035 and ESCI 72035) Application of scientific methods to geologic data in the field and laboratory, including methods for collection, analysis, modeling and presentation of data, within the framework of formulation and testing of scientific hypotheses. Provides the background necessary for upper-division earth science courses.

Prerequisite: None.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 42036 PHYSICAL HYDROGEOLOGY LABORATORY 1 Credit Hour

(Slashed with ESCI 52036 and ESCI 72036) Laboratory course offering fundamental training for professional hydrogeologists in field, laboratory and analytical techniques. Required weekend field trip.

Prerequisite: Junior standing.

Pre/corequisite: ESCI 42066.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

ESCI 42060 EARTH OBSERVING 3 Credit Hours

(Slashed with ESCI 52060 and ESCI 72060) Students are introduced to visible, thermal and LiDAR remote sensing methods. Visible and near infrared multispectral and hyperspectral data sets are used for a wide variety of research including land use change, water quality research and agricultural remote and proximal sensing. Thermal remote sensing can be used to characterize surface temperature changes, earth materials and thermal stresses on plants. LiDAR provides the ability to measure variations in surface topography and can “see” through clouds and jungle canopy and even penetrate aquatic environments to measure algal biomass and suspended sediment. Remote sensing is the use of instrumentation to obtain spectral and spatial information about an object or surface without direct contact. All matter interacts with electromagnetic energy through thermal emittance, absorption, transmittance, reflectance and/or scattering. Different materials have distinct electromagnetic signatures depending on their composition, structure and the nature of the energy with which the material is interacting. This course focuses primarily on multispectral and hyperspectral visible remote sensing, but the field of remote sensing makes use of information throughout the electromagnetic spectrum to sense the environment around us. Note that most of the data sets that are examined and analyzed in this course are multispectral Landsat images. Students are encouraged to explore various topics or geographic regions for their class project. It is recommended that students take an introductory GIS class prior to enrollment.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 42065 WATERSHED HYDROLOGY 3 Credit Hours

(Slashed with ESCI 52065 and ESCI 72065) Watershed hydrology is the study of water movement, storage and transformation across landscapes. Course covers such basic questions like “Where does water go when it rains?” and “What pathways do water take to the stream channel?”. Students examine the processes of precipitation, evapotranspiration, infiltration, streamflow generation and streamflow and learn how they are measured; how to analyze the data; and how these hydrologic processes are regulated by landscape characteristics, human activities and climate dynamics.

Prerequisite: MATH 11022; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 42066 PHYSICAL HYDROGEOLOGY 3 Credit Hours

(Slashed with ESCI 52066 and ESCI 72066) Principles of water flow in hydrologic cycle, soil and aquifer hydraulic properties, groundwater flow, surface water-groundwater interactions and geochemical evolution of groundwater. Application of principles for evaluation of water resources, emphasizing utilization, conservation and management of groundwater resources in a changing environment.

Prerequisite: MATH 11022 or any higher-level MATH course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 42068 CONTAMINANT HYDROLOGY AND HYDROGEOLOGY 3 Credit Hours

(Slashed with ESCI 52068 and ESCI 72068) An introduction to the basic principles of chemical and physical behavior of contaminants introduced by humans into the environment. Students are expected to understand concepts and work practical quantitative problems.

Prerequisite: MATH 11022 or any higher level MATH course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 43042 ENVIRONMENTAL GEOCHEMISTRY 3 Credit Hours

(Slashed with ESCI 53042 and ESCI 73042) Explores chemical processes that influence the natural environment, including anthropogenic impacts. Topics include atmospheric chemistry and air pollution, energy and climate change, toxic organic compounds, water chemistry and water pollution, metals, soils, sediments and waste disposal. Environmental problem solving using steady state and non-steady state box models, thermodynamics and energy transfer and chemical reactions and equilibria. Required half-day field trip.

Prerequisite: CHEM 10058 or CHEM 10060.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 43043 ENVIRONMENTAL MINERALOGY 3 Credit Hours

(Slashed with ESCI 53043 and ESCI 73043) Explores reactions between minerals and aqueous solutions, focusing on their role in chemical weathering, contaminant mobility, microbe-mineral interactions and an understanding of mineral-water interface processes and mechanisms at the molecular level. Through a series of case studies, the course explores the societal impacts of environmental contaminants and potential role of remediation.

Prerequisite: ESCI 23063.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 43044 ENVIRONMENTAL ISOTOPES 3 Credit Hours

(Slashed with ESCI 53044 and ESCI 73044) Stable isotope geochemistry can be used as a tool to explore a wide array of processes across the Earth and environmental sciences. The course begins by focusing on traditional applications of oxygen, hydrogen, carbon and sulfur stable isotopes to understand the water and carbon cycles. Subsequently, students are introduced to emerging stable isotope techniques and non-traditional stable isotope systems. Lectures are supplemented with exercises that incorporate real data and discussions based on recent scientific literature.

Prerequisite: CHEM 10058 or CHEM 10060.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 43092 FIELD GEOLOGY (ELR) 3 Credit Hours

Course devoted to geological field skills and solving structural and stratigraphic problems in the Black Hills of South Dakota or other suitable field location.

Prerequisite: ESCI 31070 and ESCI 31080.

Schedule Type: Practical Experience

Contact Hours: 9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ESCI 43500 ENVIRONMENTAL SOIL SCIENCE 3 Credit Hours

(Slashed with ESCI 53500 and ESCI 73500) Soil is a critical natural resource that sustains human life. During this course, students explore the geochemical composition of soils and physical, biological and chemical processes involved with rock weathering, soil formation and the environmental transport of nutrients and toxic elements.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 44025 GEOLOGIC HAZARDS AND DISASTERS 3 Credit Hours

(Slashed with ESCI 54025 and ESCI 74025) Explores the geological processes that drive a broad range of different natural hazards (including earthquakes, volcanoes, landslides and floods), and how they interact with human behavior to produce geologic risks and disasters. Through discussion of historical and topical events, students focus on the dual challenges of combining uncertain and incomplete information from various geological and historical sources into realistic assessments of future risks, and the communication of accurate, relevant, actionable information about these risks to the public and authorities.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 44040 EARTH'S ENERGY TRANSITION 3 Credit Hours

(Slashed with ESCI 54040 and ESCI 74040) Society is faced with a growing climate crisis but has most of the tools and technological knowhow needed to address the problems. This class explores mitigation and adaptation approaches necessary for a successful energy transformation by assessing Earth energy sources from a systems perspective.

Prerequisite: None.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ESCI 44070 SEDIMENTOLOGY AND STRATIGRAPHY 4 Credit Hours

(Slashed with ESCI 54070 and ESCI 74070) Course explores the processes that control the production, transport, deposition and alteration of sediments. Students learn how to reconstruct past environments, ranging from mountain streams to the deep ocean, based on the physical and geochemical characteristics of sedimentary rocks. Techniques to document and interpret spatial patterns in sediment deposition are covered and tied into various modern-day challenges, such as climate and sea level change. Lectures are integrated with in-class activities, examples from cutting-edge research, laboratory exercises and a field trip.

Pre/corequisite: ESCI 31070.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 44072 MARINE PROCESSES 3 Credit Hours

(Slashed with ESCI 54072 and ESCI 74072) This course is an exploration of the mechanisms (geological, physical, chemical and biological) through which the ocean operates, and how it influences climate on seasonal, inter-annual, glacial-interglacial and over deep time. Emphasis is placed on understanding the relative importance of these processes and how they have varied through time, and the potential outcomes of human-induced changes to these processes.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 44074 PALEOCEANOGRAPHY 3 Credit Hours

(Slashed with ESCI 54074 and ESCI 74074) A broad spectrum of geological approaches (including paleontology, geochemistry and stratigraphy) are employed to interpret the history of the Earth's oceans.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 45045 EARTH SYSTEM SCIENCE 3 Credit Hours

(Slashed with ESCI 55045 and ESCI 75045) Earth system science refers to a rapidly emerging transdisciplinary endeavor aimed at understanding the structure and functioning of the Earth as a complex, adaptive system. The development of this field began with the awareness that life on Earth exerts a control on the physical and chemical environment. The course begins with an overview of the history of this effort, which provides context for the state of the art understanding of the Earth system. Throughout this course, traditional disciplines that examine components of the Earth system in isolation (including geology, oceanography, biology and atmospheric science) are reviewed before building toward a unified understanding of the Earth system. The course also explores the impact of human advancements and civilizations in altering this system in an unprecedented manner. Course concepts include planetary boundaries, feedbacks and tipping points. A key focus of the course is the importance of spatial and temporal scale when investigating the Earth system. Throughout this course, students read and discuss papers exploring multiple techniques for integrating Earth system components, including observations, experiments and modeling. Ultimately, each student produces a research paper or proposal for a project that could bridge traditional disciplinary boundaries to investigate exciting linkages within the Earth system.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 50095 SELECTED TOPICS IN EARTH SCIENCES 1-3 Credit Hours

(Slashed with ESCI 40095 and ESCI 70095)(Repeatable for credit) Selected topics presented by visiting professors or one-time offerings presented by regular faculty.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ESCI 50380 BIOGEOCHEMISTRY 3 Credit Hours

(Cross-listed with BSCI 50380)(Slashed with BSCI 40380, BSCI 70380 and ESCI 40380) This course explores the chemical, physical, geological and biological processes and reactions that shape the world around us, and provides tools for understanding human alterations to global systems. Throughout this course, students explore elemental cycles of diverse terrestrial and aquatic ecosystems, as well as assess how humans have drastically altered these elemental cycles on a global scale and the implications of these changes for biological systems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 51073 GEOLOGY OF OHIO 3 Credit Hours

(Slashed with ESCI 41073) Minerals, rocks, fossils, structural geology, physiography, environmental geology and geologic resources. Required field trips. Does not count toward the Geology major.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 51077 GEOLOGY OF THE NATIONAL PARKS 3 Credit Hours

(Slashed with ESCI 41077) Introduction to the geology of selected major national parks, emphasizing basic geological principles and the processes that have produced the spectacular scenery, rocks and fossils in each park. Does not count toward the Geology major.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 51080 TECTONICS AND OROGENY 3 Credit Hours

(Slashed with ESCI 41080 and ESCI 71080) This course examines the forces that drive plate motions and mountain building; techniques for reconstructing those motions over a range of time scales; and how the lithosphere deforms and drives rock creation and destruction at plate boundaries, particularly in the Western United States and Appalachians. Required field trip to the Appalachians.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 51085 MASS EXTINCTIONS: CAUSES AND CONSEQUENCES 3 Credit Hours

(Slashed with ESCI 41085 and ESCI 71085) Investigation of the causes and consequences of extinction in marine and terrestrial ecosystems using paleontological, geochemical, sedimentological and stratigraphical information; emphasizing an Earth system science approach to the Big Five mass extinctions, as well as the possible sixth extinction occurring now.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 52030 REMOTE SENSING 3 Credit Hours

(Cross-listed with GEOG 59230) (Slashed with ESCI 42030, ESCI 72030, GEOG 49230, GEOG 79230) Computer analysis of multispectral satellite datasets. Applications in terrestrial earth science are emphasized.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 52035 DATA ANALYSIS IN THE EARTH SCIENCES 3 Credit Hours

(Slashed with ESCI 42035 and ESCI 72035) Application of scientific methods to geologic data in the field and laboratory, including methods for collection, analysis, modeling and presentation of data, within the framework of formulation and testing of scientific hypotheses.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 52036 PHYSICAL HYDROGEOLOGY LABORATORY 1 Credit Hour

(Slashed with ESCI 42036 and ESCI 72036) Laboratory course offering fundamental training for professional hydrogeologists in field, laboratory and analytical techniques. Required weekend field trip.

Prerequisite: Graduate standing.

Pre/corequisite: ESCI 52066.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

ESCI 52060 EARTH OBSERVING 3 Credit Hours

(Slashed with ESCI 42060 and ESCI 72060) Students are introduced to visible, thermal and LiDAR remote sensing methods. Visible and near infrared multispectral and hyperspectral data sets are used for a wide variety of research including land use change, water quality research and agricultural remote and proximal sensing. Thermal remote sensing can be used to characterize surface temperature changes, earth materials and thermal stresses on plants. LiDAR provides the ability to measure variations in surface topography and can "see" through clouds and jungle canopy and even penetrate aquatic environments to measure algal biomass and suspended sediment. Remote sensing is the use of instrumentation to obtain spectral and spatial information about an object or surface without direct contact. All matter interacts with electromagnetic energy through thermal emittance, absorption, transmittance, reflectance and/or scattering. Different materials have distinct electromagnetic signatures depending on their composition, structure and the nature of the energy with which the material is interacting. This course focuses primarily on multispectral and hyperspectral visible remote sensing, but the field of remote sensing makes use of information throughout the electromagnetic spectrum to sense the environment around us. Note that most of the data sets that are examined and analyzed in this course are multispectral Landsat images. Students are encouraged to explore various topics or geographic regions for their class project. It is recommended that students take an introductory GIS class prior to enrollment.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 52065 WATERSHED HYDROLOGY 3 Credit Hours

(Slashed with ESCI 42065 and ESCI 72065) Watershed hydrology is the study of water movement, storage and transformation across landscapes. Course covers such basic questions like "Where does water go when it rains?" and "What pathways do water take to the stream channel?". Students examine the processes of precipitation, evapotranspiration, infiltration, streamflow generation and streamflow and learn how they are measured; how to analyze the data; and how these hydrologic processes are regulated by landscape characteristics, human activities and climate dynamics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 52066 PHYSICAL HYDROGEOLOGY 3 Credit Hours

(Slashed with ESCI 42066 and ESCI 72066) Principles of water flow in hydrologic cycle, soil and aquifer hydraulic properties, groundwater flow, surface water-groundwater interactions and geochemical evolution of groundwater. Application of principles for evaluation of water resources, emphasizing utilization, conservation and management of groundwater resources in a changing environment.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 52068 CONTAMINANT HYDROLOGY AND HYDROGEOLOGY 3 Credit Hours

(Slashed with ESCI 42068 and ESCI 72068) An introduction to the basic principles of chemical and physical behavior of contaminants introduced by humans into the environment. Students are expected to understand concepts and work practical quantitative problems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 53042 ENVIRONMENTAL GEOCHEMISTRY 3 Credit Hours

(Slashed with ESCI 43042 and ESCI 73042) Explores chemical processes that influence the natural environment, including anthropogenic impacts. Topics include atmospheric chemistry and air pollution, energy and climate change, toxic organic compounds, water chemistry and water pollution, metals, soils, sediments and waste disposal. Environmental problem solving using steady state and non-steady state box models, thermodynamics and energy transfer and chemical reactions and equilibria. Required half-day field trip.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 53043 ENVIRONMENTAL MINERALOGY 3 Credit Hours

(Slashed with ESCI 43043 and ESCI 73043) Explores reactions between minerals and aqueous solutions, focusing on their role in chemical weathering, contaminant mobility, microbe-mineral interactions and an understanding of mineral-water interface processes and mechanisms at the molecular level. Through a series of case studies, the course explores the societal impacts of environmental contaminants and potential role of remediation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 53044 ENVIRONMENTAL ISOTOPES 3 Credit Hours

(Slashed with ESCI 43044 and ESCI 73044) Stable isotope geochemistry can be used as a tool to explore a wide array of processes across the Earth and environmental sciences. The course begins by focusing on traditional applications of oxygen, hydrogen, carbon and sulfur stable isotopes to understand the water and carbon cycles. Subsequently, students are introduced to emerging stable isotope techniques and non-traditional stable isotope systems. Lectures are supplemented with exercises that incorporate real data and discussions based on recent scientific literature.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 53092 FIELD GEOLOGY 3 Credit Hours

Course devoted to geological field skills and solving structural and stratigraphic problems in the Black Hills of South Dakota or other suitable field location.

Prerequisite: Graduate standing.

Schedule Type: Practical Experience

Contact Hours: 9 other

Grade Mode: Standard Letter

ESCI 53500 ENVIRONMENTAL SOIL SCIENCE 3 Credit Hours

(Slashed with ESCI 43500 and ESCI 73500) Soil is a critical natural resource that sustains human life. During this course, students explore the geochemical composition of soils and physical, biological and chemical processes involved with rock weathering, soil formation and the environmental transport of nutrients and toxic elements.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 54025 GEOLOGIC HAZARDS AND DISASTERS 3 Credit Hours

(Slashed with ESCI 44025 and ESCI 74025) Explores the geological processes that drive a broad range of different natural hazards (including earthquakes, volcanoes, landslides and floods), and how they interact with human behavior to produce geologic risks and disasters. Through discussion of historical and topical events, students focus on the dual challenges of combining uncertain and incomplete information from various geological and historical sources into realistic assessments of future risks, and the communication of accurate, relevant, actionable information about these risks to the public and authorities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 54040 EARTH'S ENERGY TRANSITION 3 Credit Hours

(Slashed with ESCI 44040 and ESCI 74040) Society is faced with a growing climate crisis but has most of the tools and technological knowhow needed to address the problems. This class explores mitigation and adaptation approaches necessary for a successful energy transformation by assessing Earth energy sources from a systems perspective.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ESCI 54070 SEDIMENTOLOGY AND STRATIGRAPHY 4 Credit Hours

(Slashed with ESCI 44070 and ESCI 74070) Course explores the processes that control the production, transport, deposition and alteration of sediments. Students learn how to reconstruct past environments, ranging from mountain streams to the deep ocean, based on the physical and geochemical characteristics of sedimentary rocks. Techniques to document and interpret spatial patterns in sediment deposition are covered and tied into various modern-day challenges, such as climate and sea level change. Lectures are integrated with in-class activities, examples from cutting-edge research, laboratory exercises and a field trip.

Prerequisite: Graduate standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 54072 MARINE PROCESSES 3 Credit Hours

(Slashed with ESCI 44072 and ESCI 74072) This course is an exploration of the mechanisms (geological, physical, chemical and biological) through which the ocean operates, and how it influences climate on seasonal, inter-annual, glacial-interglacial and over deep time. Emphasis is placed on understanding the relative importance of these processes and how they have varied through time, and the potential outcomes of human-induced changes to these processes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 54074 PALEOCEANOGRAPHY 3 Credit Hours

(Slashed with ESCI 44074 and ESCI 74074) A broad spectrum of geological approaches (including paleontology, geochemistry and stratigraphy) are employed to interpret the history of the Earth's oceans.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 55045 EARTH SYSTEM SCIENCE 3 Credit Hours

(Slashed with ESCI 45045 and ESCI 75045) Earth system science refers to a rapidly emerging transdisciplinary endeavor aimed at understanding the structure and functioning of the Earth as a complex, adaptive system. The development of this field began with the awareness that life on Earth exerts a control on the physical and chemical environment. The course begins with an overview of the history of this effort, which provides context for the state of the art understanding of the Earth system. Throughout this course, traditional disciplines that examine components of the Earth system in isolation (including geology, oceanography, biology and atmospheric science) are reviewed before building toward a unified understanding of the Earth system. The course also explores the impact of human advancements and civilizations in altering this system in an unprecedented manner. Course concepts include planetary boundaries, feedbacks and tipping points. A key focus of the course is the importance of spatial and temporal scale when investigating the Earth system. Throughout this course, students read and discuss papers exploring multiple techniques for integrating Earth system components, including observations, experiments and modeling. Ultimately, each student produces a research paper or proposal for a project that could bridge traditional disciplinary boundaries to investigate exciting linkages within the Earth system.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 60084 GEOLOGY GRADUATE STUDENT ORIENTATION 1 Credit Hour

(Slashed with ESCI 70084) Introduction to departmental resources, procedures and expectations, as well as approaches to successfully conduct research at a graduate level. Training and experience in presentation of data and college teaching of applied geology, as well as a discussion forum on professional ethics and responsibilities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

ESCI 60086 FIELD METHODS IN THE EARTH SCIENCES 1 Credit Hour

(Slashed with ESCI 80086) This course focuses on the skills necessary for sample and data collection in the field. Additionally, it provides strategies for successfully leading safe, inclusive field work both within academia and other career sectors. The course requires a commitment to weekly readings and discussions.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

ESCI 60091 SEMINAR 1-2 Credit Hours

(Repeatable for credit)(Slashed with ESCI 70091) Topics in geology and earth science; varies per course offering.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-2 other

Grade Mode: Standard Letter

ESCI 60095 SELECTED TOPICS IN EARTH SCIENCES 1-3 Credit Hours

(Repeatable for credit) Selected topics presented by visiting professors or one-time offerings presented by regular faculty.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ESCI 60098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for master's level students. Credits earned may be applied toward degree if department approves.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ESCI 60199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ESCI 60291 SEMINAR: WRITING IN THE EARTH SCIENCES 1 Credit Hour

(Slashed with ESCI 80291)(Repeatable for credit) Focuses on the strategies for achieving regular and productive academic writing and the craft of writing for scientific literature. The course is designed for students who have a major writing project that will take most or all of the semester, such as a dissertation, thesis or dissertation proposal. The course requires commitment to weekly writing progress and provides weekly opportunities for peer review and support.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

ESCI 60299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: ESCI 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ESCI 60391 GEOCHEMINAR 1 Credit Hour

(Repeatable for credit) In this course, students gain understanding of advanced techniques in geochemistry by presenting information from primary literature and discussing data processing and analysis of their research.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

ESCI 60591 SEMINAR: DATA ANALYSIS AND PRESENTATION 1 Credit Hour

(Slashed with ESCI 80591)(Repeatable for credit) Course focuses on the skills and issues surrounding data production and analysis for the earth sciences. It provides students the opportunity to familiarize themselves with strategies for managing and presenting data that they generate as part of their graduate studies. The course requires a commitment to regular readings and discussions.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

ESCI 70084 GEOLOGY GRADUATE STUDENT ORIENTATION 1 Credit Hour

(Slashed with ESCI 60084) Introduction to departmental resources, procedures and expectations, as well as approaches to successfully conduct research at a graduate level. Training and experience in presentation of data and college teaching of applied geology, as well as discussion forum on professional ethics and responsibilities.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

ESCI 70091 SEMINAR 1-2 Credit Hours

(Repeatable for credit)(Slashed with ESCI 60091) Topics in geology and earth science; varies per course offering.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1-2 other

Grade Mode: Standard Letter

ESCI 70095 SELECTED TOPICS IN EARTH SCIENCES 1-3 Credit Hours

(Slashed with ESCI 40095 and ESCI 50095)(Repeatable for credit) Selected topics presented by visiting professors or one-time offerings presented by regular faculty.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ESCI 71080 TECTONICS AND OROGENY 3 Credit Hours

(Slashed with ESCI 41080 and ESCI 51080) This course examines the forces that drive plate motions and mountain building; techniques for reconstructing those motions over a range of time scales; and how the lithosphere deforms and drives rock creation and destruction at plate boundaries, particularly in the Western United States and Appalachians. Required field trip to the Appalachians.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 71085 MASS EXTINCTIONS: CAUSES AND CONSEQUENCES 3 Credit Hours

(Slashed with ESCI 41085 and ESCI 51085) Investigation of the causes and consequences of extinction in marine and terrestrial ecosystems using paleontological, geochemical, sedimentological and stratigraphical information; emphasizing an Earth system science approach to the Big Five mass extinctions, as well as the possible sixth extinction occurring now.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 72030 REMOTE SENSING 3 Credit Hours

(Cross-listed with GEOG 79230) (Slashed with ESCI 42030, ESCI 52030, GEOG 49230, GEOG 59230) Computer analysis of multispectral satellite datasets. Applications in terrestrial earth science are emphasized.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 72035 DATA ANALYSIS IN THE EARTH SCIENCES 3 Credit Hours

(Slashed with ESCI 42035 and ESCI 52035) Application of scientific methods to geologic data in the field and laboratory, including methods for collection, analysis, modeling and presentation of data, within the framework of formulation and testing of scientific hypotheses.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 72036 PHYSICAL HYDROGEOLOGY LABORATORY 1 Credit Hour

(Slashed with ESCI 42036 and ESCI 52036) Laboratory course offering fundamental training for professional hydrogeologists in field, laboratory and analytical techniques. Required weekend field trip.

Prerequisite: Doctoral standing.

Pre/corequisite: ESCI 72066.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

ESCI 72060 EARTH OBSERVING 3 Credit Hours

(Slashed with ESCI 42060 and ESCI 52060) Students are introduced to visible, thermal and LiDAR remote sensing methods. Visible and near infrared multispectral and hyperspectral data sets are used for a wide variety of research including land use change, water quality research and agricultural remote and proximal sensing. Thermal remote sensing can be used to characterize surface temperature changes, earth materials and thermal stresses on plants. LiDAR provides the ability to measure variations in surface topography and can "see" through clouds and jungle canopy and even penetrate aquatic environments to measure algal biomass and suspended sediment. Remote sensing is the use of instrumentation to obtain spectral and spatial information about an object or surface without direct contact. All matter interacts with electromagnetic energy through thermal emittance, absorption, transmittance, reflectance and/or scattering. Different materials have distinct electromagnetic signatures depending on their composition, structure and the nature of the energy with which the material is interacting. This course focuses primarily on multispectral and hyperspectral visible remote sensing, but the field of remote sensing makes use of information throughout the electromagnetic spectrum to sense the environment around us. Note that most of the data sets that are examined and analyzed in this course are multispectral Landsat images. Students are encouraged to explore various topics or geographic regions for their class project. It is recommended that students take an introductory GIS class prior to enrollment.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 72065 WATERSHED HYDROLOGY 3 Credit Hours

(Slashed with ESCI 42065 and ESCI 52065) Watershed hydrology is the study of water movement, storage and transformation across landscapes. Course covers such basic questions like "Where does water go when it rains?" and "What pathways do water take to the stream channel?". Students examine the processes of precipitation, evapotranspiration, infiltration, streamflow generation and streamflow and learn how they are measured; how to analyze the data; and how these hydrologic processes are regulated by landscape characteristics, human activities and climate dynamics.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 72066 PHYSICAL HYDROGEOLOGY 3 Credit Hours

(Slashed with ESCI 42066 and ESCI 52066) Principles of water flow in hydrologic cycle, soil and aquifer hydraulic properties, groundwater flow, surface water-groundwater interactions and geochemical evolution of groundwater. Application of principles for evaluation of water resources, emphasizing utilization, conservation and management of groundwater resources in a changing environment.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 72068 CONTAMINANT HYDROLOGY AND HYDROGEOLOGY 3 Credit Hours

(Slashed with ESCI 42068 and ESCI 52068) An introduction to the basic principles of chemical and physical behavior of contaminants introduced by humans into the environment. Students are expected to understand concepts and work practical quantitative problems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 73042 ENVIRONMENTAL GEOCHEMISTRY 3 Credit Hours

(Slashed with ESCI 43042 and ESCI 53042) Explores chemical processes that influence the natural environment, including anthropogenic impacts.

Topics include atmospheric chemistry and air pollution, energy and climate change, toxic organic compounds, water chemistry and water pollution, metals, soils, sediments and waste disposal. Environmental problem solving using steady state and non-steady state box models, thermodynamics and energy transfer and chemical reactions and equilibria. Required half-day field trip.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 73043 ENVIRONMENTAL MINERALOGY 3 Credit Hours

(Slashed with ESCI 43043 and ESCI 53043) Explores reactions between minerals and aqueous solutions, focusing on their role in chemical weathering, contaminant mobility, microbe-mineral interactions and an understanding of mineral-water interface processes and mechanisms at the molecular level. Through a series of case studies, the course explores the societal impacts of environmental contaminants and potential role of remediation.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 73044 ENVIRONMENTAL ISOTOPES 3 Credit Hours

(Slashed with ESCI 43044 and ESCI 53044) Stable isotope geochemistry can be used as a tool to explore a wide array of processes across the Earth and environmental sciences. The course begins by focusing on traditional applications of oxygen, hydrogen, carbon and sulfur stable isotopes to understand the water and carbon cycles. Subsequently, students are introduced to emerging stable isotope techniques and non-traditional stable isotope systems. Lectures are supplemented with exercises that incorporate real data and discussions based on recent scientific literature.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 73500 ENVIRONMENTAL SOIL SCIENCE 3 Credit Hours

(Slashed with ESCI 43500 and ESCI 53500) Soil is a critical natural resource that sustains human life. During this course, students explore the geochemical composition of soils and physical, biological and chemical processes involved with rock weathering, soil formation and the environmental transport of nutrients and toxic elements.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 74025 GEOLOGIC HAZARDS AND DISASTERS 3 Credit Hours

(Slashed with ESCI 44025 and ESCI 54025) Explores the geological processes that drive a broad range of different natural hazards (including earthquakes, volcanoes, landslides and floods), and how they interact with human behavior to produce geologic risks and disasters. Through discussion of historical and topical events, students focus on the dual challenges of combining uncertain and incomplete information from various geological and historical sources into realistic assessments of future risks, and the communication of accurate, relevant, actionable information about these risks to the public and authorities.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 74040 EARTH'S ENERGY TRANSITION 3 Credit Hours

(Slashed with ESCI 44040 and ESCI 54040) Society is faced with a growing climate crisis but has most of the tools and technological knowhow needed to address the problems. This class explores mitigation and adaptation approaches necessary for a successful energy transformation by assessing Earth energy sources from a systems perspective.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ESCI 74070 SEDIMENTOLOGY AND STRATIGRAPHY 4 Credit Hours

(Slashed with ESCI 44070 and ESCI 54070) Course explores the processes that control the production, transport, deposition and alteration of sediments. Students learn how to reconstruct past environments, ranging from mountain streams to the deep ocean, based on the physical and geochemical characteristics of sedimentary rocks. Techniques to document and interpret spatial patterns in sediment deposition are covered and tied into various modern-day challenges, such as climate and sea level change. Lectures are integrated with in-class activities, examples from cutting-edge research, laboratory exercises and a field trip.

Prerequisite: Doctoral standing.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

ESCI 74072 MARINE PROCESSES 3 Credit Hours

(Slashed with ESCI 44072 and ESCI 54072) This course is an exploration of the mechanisms (geological, physical, chemical and biological) through which the ocean operates, and how it influences climate on seasonal, inter-annual, glacial-interglacial and over deep time. Emphasis is placed on understanding the relative importance of these processes and how they have varied through time, and the potential outcomes of human-induced changes to these processes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 74074 PALEOCEANOGRAPHY 3 Credit Hours

(Slashed with ESCI 44074 and ESCI 54074) A broad spectrum of geological approaches (including paleontology, geochemistry and stratigraphy) are employed to interpret the history of the Earth's oceans.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 75045 EARTH SYSTEM SCIENCE 3 Credit Hours

(Slashed with ESCI 45045 and ESCI 55045) Earth system science refers to a rapidly emerging transdisciplinary endeavor aimed at understanding the structure and functioning of the Earth as a complex, adaptive system. The development of this field began with the awareness that life on Earth exerts a control on the physical and chemical environment. The course begins with an overview of the history of this effort, which provides context for the state of the art understanding of the Earth system. Throughout this course, traditional disciplines that examine components of the Earth system in isolation (including geology, oceanography, biology and atmospheric science) are reviewed before building toward a unified understanding of the Earth system. The course also explores the impact of human advancements and civilizations in altering this system in an unprecedented manner. Course concepts include planetary boundaries, feedbacks and tipping points. A key focus of the course is the importance of spatial and temporal scale when investigating the Earth system. Throughout this course, students read and discuss papers exploring multiple techniques for integrating Earth system components, including observations, experiments and modeling. Ultimately, each student produces a research paper or proposal for a project that could bridge traditional disciplinary boundaries to investigate exciting linkages within the Earth system.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ESCI 80086 FIELD METHODS IN THE EARTH SCIENCES 1 Credit Hour

(Slashed with ESCI 60086) This course focuses on the skills necessary for sample and data collection in the field. Additionally, it provides strategies for successfully leading safe, inclusive field work both within academia and other career sectors. The course requires a commitment to weekly readings and discussions.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

ESCI 80095 ADVANCED TOPICS IN EARTH SCIENCES 1-3 Credit Hours

(Repeatable for credit) Advanced topics presented by visiting professors or one-time offerings presented by regular faculty.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ESCI 80098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for doctoral students. Credits earned may be applied toward degree with departmental approval.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ESCI 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Admission to candidacy for doctoral degree; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ESCI 80291 SEMINAR: WRITING IN THE EARTH SCIENCES 1 Credit Hour

(Slashed with ESCI 60291)(Repeatable for credit) Focuses on the strategies for achieving regular and productive academic writing and the craft of writing for scientific literature. The course is designed for students who have a major writing project that will take most or all of the semester, such as a dissertation, thesis or dissertation proposal. The course requires commitment to weekly writing progress and provides weekly opportunities for peer review and support.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

ESCI 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration is required of doctoral students who have completed the initial 30 hours of dissertation, continuing until all degree requirements are met.

Prerequisite: ESCI 80199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ESCI 80591 SEMINAR: DATA ANALYSIS AND PRESENTATION 1 Credit Hour

(Slashed with ESCI 60591)(Repeatable for credit) Course focuses on the skills and issues surrounding data production and analysis for the earth sciences. It provides students the opportunity to familiarize themselves with strategies for managing and presenting data that they generate as part of their graduate studies. The course requires a commitment to regular readings and discussions.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

Department of English

English (ENG)

ENG 01001 INTRODUCTION TO COLLEGE WRITING-STRETCH 3 Credit Hours

Introduces the instruction and experiences necessary for students to acquire college-level literacy, with an emphasis on reading and writing college level texts. Course does not count toward graduation.

Prerequisite: ACT English score of 0-17; or SAT Evidence Based Reading and Writing score of 200-470; or WritePlacer score of 0-3; or Accuplacer Reading Comprehension score of 200-249 and WritePlacer score of 4.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02008 ESL GRAMMAR AND WRITING BEGINNER 1 3 Credit Hours

Students learn and apply the rules of elementary grammar in their spoken and written English at a beginner level. Students learn to produce simple paragraphs with beginner-level control of grammar on familiar topics using the writing process. Course culminates with writing a paragraph on a familiar topic with organization, grammar, vocabulary, spelling, punctuation and capitalization appropriate for a beginner level. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02009 ESL GRAMMAR AND WRITING BEGINNER 2 3 Credit Hours

Students apply rules of elementary grammar in spoken and written English at exiting beginner level. Topics from ENG 02008 are expanded upon. Students improve their ability to write simple paragraphs on familiar topics. Course culminates with improved ability to write a five-sentence paragraph on familiar topic with level-appropriate organization, grammar, vocabulary, spelling, punctuation and capitalization. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02010 ESL GRAMMAR AND WRITING PRE-INTERMEDIATE 1 3 Credit Hours

Students learn and apply the rules of grammar in spoken and written English at an initial pre-intermediate level. Focus is on writing well-developed, level-appropriate paragraphs on familiar topics using the writing process. Course culminates in writing one double-spaced page of organized paragraphs on familiar topics at the initial pre-intermediate level. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02011 ESL GRAMMAR AND WRITING PRE-INTERMEDIATE 2 3 Credit Hours

Students learn and apply the rules of grammar in spoken and written English at an exiting pre-intermediate level. Skills from ENG 02010 are reviewed and expanded upon in this course. Course culminates in writing organized and well developed paragraphs on familiar topics. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02012 ESL WRITING AND GRAMMAR INTERMEDIATE 1 3 Credit Hours

Students develop writing skills and expand and apply their knowledge of grammar at an initial intermediate level. Focus is on developing and organizing ideas in writing for different purposes and audiences with control of vocabulary choice, grammar, sentence variety and punctuation. Course culminates in using writing process for at least two short compositions to compare and contrast ideas and express an opinion. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02013 ESL GRAMMAR AND WRITING INTERMEDIATE 2 3 Credit Hours

Students apply the rules of grammar in written English at an exiting intermediate level. Topics from previous levels are reviewed and expanded upon in this course. Focus is on writing for different purposes and audiences with greater control of vocabulary choice, grammar, sentence variety, organization and development. Course culminates in writing a short problem solution essay and reflection at the intermediate level. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02014 ESL ACADEMIC WRITING 1 3 Credit Hours

Students develop the writing skills needed for participation in academic coursework at an initial high-intermediate level. Focus is on writing essays that are well-developed, organized, grammatically accurate and cohesive and cite source material. Course culminates in writing reflection compositions and cause-and-effect essays at the initial high-intermediate level. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02108 ESL READING AND VOCABULARY BEGINNER 1 3 Credit Hours

Students develop reading proficiency at a beginner level, establishing a basic vocabulary for everyday living which they can recognize in written and spoken English. Focus is on noticing grammar, increasing vocabulary knowledge, recognizing organizational patterns and learning new information with beginner texts. Course introduces students to different reading strategies and encourages independent reading habits. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02109 ESL READING AND VOCABULARY BEGINNER 2 3 Credit Hours

Students develop reading proficiency at an exiting beginner level, establishing a basic vocabulary for everyday living which they can recognize in written and spoken English. Topics from ENG 02108 are reinforced and expanded. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02110 ESL READING AND VOCABULARY PRE-INTERMEDIATE 1 3 Credit Hours

Students develop skill understanding and producing spoken English at an initial pre-intermediate level. Focus is on listening comprehension skills for short texts on a wide range of familiar and simplified academic topics and the development of interpersonal communication skills and habits that encourage independent listening in English. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02111 ESL READING AND VOCABULARY PRE-INTERMEDIATE 2 3 Credit Hours

Students develop skill understanding and producing spoken English at an exiting pre-intermediate level. Focus is on improving listening comprehension skills for short texts on a wide range of familiar and simplified academic topics, refining interpersonal communication skills on everyday topics and encouraging independent listening in English. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02112 ESL READING AND VOCABULARY INTERMEDIATE 1 3 Credit Hours

Students develop reading proficiency at an initial intermediate level. Focus is on building vocabulary knowledge of abstract and academic topics, applying reading strategies, learning how to summarize level-appropriate readings and becoming independent readers in English. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02113 ESL READING AND VOCABULARY INTERMEDIATE 2 3 Credit Hours

Students develop reading proficiency at an exiting intermediate level. Topics from previous courses are reviewed and expanded upon in this course. Focus is on expanding vocabulary knowledge of abstract and academic topics, applying reading strategies, scaffolded text annotation and summary writing, responding critically to reading texts and independent reading in English. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02114 ESL ACADEMIC READING 1 3 Credit Hours

Students develop proficiency in critical reading skills for academic study at an initial high-intermediate level. Focus is on applying reading strategies to authentic reading texts, academic vocabulary development, paraphrasing, summarizing, participating in classroom discussion and independent reading in English. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02208 ESL LISTENING AND SPEAKING BEGINNER 1 3 Credit Hours

Students develop listening and speaking skills at a beginner level. Focus is on participating in verbal exchanges in English related to everyday life and starting to develop independent listening habits. Students begin to recognize and use simple present, simple past and future references in statements, questions and answers. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02209 ESL LISTENING AND SPEAKING BEGINNER 2 3 Credit Hours

Students develop listening and speaking skills at an exiting beginner level. Focus is on more skillful participation in verbal exchanges in English related to everyday life and developing independent listening habits. Students refine ability to recognize and use simple present, simple past and future references in statements, questions and answers. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02210 ESL LISTENING AND SPEAKING PRE-INTERMEDIATE 1 3 Credit Hours

Students develop skill understanding and producing spoken English at an initial pre-intermediate level. Students develop listening comprehension skills for short texts on a wide range of familiar and simplified academic topics. Students become increasingly competent at understanding fast spoken English on everyday topics. Students practice interpersonal communication skills, including short presentations about themselves, and are guided in habits that encourage independent listening in English. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02211 ESL LISTENING AND SPEAKING PRE-INTERMEDIATE 2 3 Credit Hours

Students develop skill understanding and producing spoken English at an exiting pre-intermediate level. Topics from ENG 02210 are reviewed for reinforcement. Focus is on comprehension skills for short texts on a wide range of familiar and some simplified academic topics, competence at understanding fast spoken English on everyday topics, interpersonal communication skills and independent listening in English. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02212 ESL LISTENING AND SPEAKING INTERMEDIATE 1 3 Credit Hours

Students develop skill understanding and producing spoken English at an initial intermediate level. Listening focus is on applying comprehension strategies, vocabulary development and note taking on short academic lectures and level-appropriate authentic listening materials. Speaking focus is on summarizing, classroom discussion and associated skills and short presentations. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02213 ESL LISTENING AND SPEAKING INTERMEDIATE 2 3 Credit Hours

Students develop skill understanding and producing spoken English at an exiting intermediate level. Topics from ENG 02212 are reviewed and expanded upon in this course. Listening focus is on applying strategies, vocabulary development, note taking, paraphrasing and summary writing. Speaking focus is on refining classroom discussion skills and making short presentations. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 02214 ESL ACADEMIC LISTENING AND SPEAKING 1 3 Credit Hours

Students develop skill understanding and producing spoken English for academic study at an initial high-intermediate level. Listening focus is on academic vocabulary development, note taking strategies and summarizing authentic and academic listening texts. Speaking focus is on developing communicative competence in academic discussion. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 11002 COLLEGE WRITING-STRETCH (KCMP) 3 Credit Hours

Continues the instruction and practice necessary to write for college, with emphasis on the reading, thinking, writing and technological skills necessary for writing college level texts.

Prerequisite: Minimum C grade in ENG 01001; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Composition, Transfer Module Composition

ENG 11011 COLLEGE WRITING (KCMP) 3 Credit Hours

The study and practice of academic writing, including an introduction to rhetorical principles, the writing process, critical reading, research and technology. Students who do not meet the prerequisites but have a minimum 2.8 high school GPA or a score of 165 on the GED Reasoning Through Language Arts should contact the department for approval to register.

Prerequisite: ACT English score of 18-25; or SAT Evidence Based Reading and Writing score of 480-590; or Accuplacer Reading Comprehension score of 250 or higher and WritePlacer score of 4; or WritePlacer score of 5 or higher.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Composition, Transfer Module Composition

ENG 12011 ESL ACADEMIC WRITING 2 3 Credit Hours

Students apply writing skills needed for participation in academic coursework at an exiting high-intermediate level. Topics from previous courses are reviewed and expanded upon. Focus is on writing cause-effect essays and summary responses that are well-developed, organized, grammatically accurate and cohesive and skillfully use source material.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12012 ESL WRITING FOR ACADEMIC DISCIPLINES 1 3 Credit Hours

Students develop writing skills needed for participation in academic coursework at the initial advanced level. Focus is on composing an annotated bibliography and guided research paper in each student's intended field of study, using library resources and skillfully working with source material. Students learn to independently outline, revise and edit their own work.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12013 ESL WRITING FOR ACADEMIC DISCIPLINES 2 3 Credit Hours

Students refine writing skills needed for participation in academic coursework at the initial advanced level. Focus is on composing critical responses to academic literature in each student's intended field of study, using library resources and skillfully working with source material. Students develop skills to independently outline, revise and edit their own work.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12014 ESL ACADEMIC READING 2 3 Credit Hours

Students develop proficiency in critical reading skills for academic study at an exiting high-intermediate level. Topics from previous courses are reviewed and expanded upon in this course. Focus is on critical evaluation of authentic reading texts, academic vocabulary development, paraphrasing, summarizing, participating in classroom discussion and independent reading in English.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12095 SPECIAL TOPICS IN ENGLISH AS SECOND LANGUAGE 1-3 Credit Hours

(Repeatable for credit) Overview of skills related to a special topic in second language learning.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ENG 12111 ESL ADVANCED ACADEMIC READING 1 3 Credit Hours

Students develop skills to understand and analyze reading texts at the advanced level. Focus is on noticing genre features of academic writing, applying reading strategies, increasing reading speed and independence and composing critical responses to reading texts in students' majors.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12112 ESL ADVANCED ACADEMIC READING 2 3 Credit Hours

Students further develop skills to understand and analyze reading texts at the advanced level. Focus is on noticing genre features of academic writing, applying reading strategies, increasing reading speed and independence and composing critical responses to reading texts in students' majors.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12211 ESL ACADEMIC LISTENING AND SPEAKING 2 3 Credit Hours

Students develop skill understanding and producing spoken English for academic study at an exiting high-intermediate level. Listening focus is on academic vocabulary development, note taking strategies and critically responding to academic listening texts. Speaking focus is on developing extending communicative competence in academic discussion. Course does not count toward graduation.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12212 ESL ADVANCED ACADEMIC SPEAKING AND LISTENING 1 3 Credit Hours

Students develop skill understanding and producing spoken English for academic purposes at an initial advanced level. Focus is on note taking, summarizing, independent listening, communicating critical responses, presentation skills and skillfully participating in classroom discussion.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12213 ESL ADVANCED ACADEMIC SPEAKING AND LISTENING 2 3 Credit Hours

Students refine skills in understanding and producing spoken English for academic purposes at an advanced level. Focus is on note taking, summarizing, independent listening, communicating critical responses, presentation skills and skillfully participating in classroom discussion.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 12507 ESL DEBATE 1 Credit Hour

(Repeatable for a maximum of 2 credit hours) Practice of skills for persuasive speaking, making effective arguments and active listening. Engagement in formal and informal debates and presentations. Must score minimum level 7 on proficiency test.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 1.4 lecture

Grade Mode: Standard Letter

ENG 12508 ESL PUBLIC SPEAKING 1 Credit Hour

(Repeatable for a maximum of 2 credit hours) Preparation for continued academic study and professional advancement, including effective techniques for speaking in public. Design and analysis of speeches and presentations. Must score minimum level 8 on proficiency test.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 1.4 lecture

Grade Mode: Standard Letter

ENG 12605 ESL AMERICAN CULTURE I 2 Credit Hours

Overview of basic American values and beliefs related to history, immigration, diversity, and geography. Must score minimum level 5 on proficiency test.

Prerequisite: None (placement and registration done by the department).

Schedule Type: Lecture

Contact Hours: 2.33 lecture

Grade Mode: Standard Letter

ENG 12707 ESL BUSINESS ENGLISH I 2 Credit Hours

Overview of business communication, business writing strategies, and computer skills in the workplace. Must score minimum level 7 on proficiency test.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

ENG 12708 ESL BUSINESS ENGLISH II 2 Credit Hours

Development of oral and written business communication skills.

Prerequisite: ENG 12707 with a minimum C- grade; and special approval.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

ENG 20002 INTRODUCTION TO TECHNICAL WRITING 3 Credit Hours

Introduction to communication practices within technical communities. Planning, drafting, revising and editing. Process descriptions, object descriptions, instructional texts, technical correspondence, problem reports, critical reflection.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence Based Reading and Writing score of 600 or higher; or minimum C- grade in ENG 11002, ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 20021 INTRODUCTION TO CREATIVE WRITING 3 Credit Hours

Practice in various forms of creative writing with some emphasis on student interests and on sources of creativity.

Prerequisite: Minimum 26 ACT combined English/writing score; or minimum 600 SAT writing score; or ENG 11002, or ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 21001 INTRODUCTION TO ETHNIC LITERATURE OF THE UNITED STATES 3 Credit Hours

Study of selected ethnic American writers; may include works by African, Asian, Hispanic, Jewish, Native Americans and other groups.

Prerequisite: Minimum 26 ACT combined English/writing score; or minimum 600 SAT writing score; or ENG 11002 or ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 21002 INTRODUCTION TO WOMEN'S LITERATURE 3 Credit Hours

Introduction to works by women writing in English, and to literary and gender issues they raise.

Prerequisite: Minimum 26 ACT combined English/writing score; or minimum 600 SAT writing score; or ENG 11002 or ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 21003 INTRODUCTION TO LGBT LITERATURE 3 Credit Hours

Introduction to lesbian, gay, bisexual and transgender literature in English and to issues of gender, sexuality and culture raised by this literature.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011, or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 21011 RESEARCH WRITING (KCMP) 3 Credit Hours

Continuation of college-level writing instruction with emphasis on research and inquiry, culminating in a lengthy written and/or multimodal project.

Prerequisite: Minimum C- grade in ENG 11002 or ENG 11011 or HONR 10197; or ACT English score of 26 or higher; or SAT Evidence Based Reading and Writing score of 600 or higher.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Composition, Transfer Module Composition

ENG 21054 INTRODUCTION TO SHAKESPEARE (KHUM) 3 Credit Hours

Study of representative plays and poems in the context of Shakespeare's age, his language and his cultural influence.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, Transfer Module Humanities

ENG 22071 STORIES THAT BUILT THE WORLD: HEROES, QUESTS AND LEGENDS (KHUM) 3 Credit Hours

Great works of world literature read in English, from ancient world to 1700, covering a wide range of ethnic and national voices, genres and traditions.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, Transfer Module Humanities

ENG 22072 STORIES TO SAVE THE WORLD: LITERATURE AND THE FUTURE OF HUMANITY (KHUM) 3 Credit Hours

Great works of world literature read in English, from 1700 to today, covering a wide range of ethnic and national voices, genres and traditions.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, TAG Arts and Humanities, Transfer Module Humanities

ENG 22073 MAJOR MODERN WRITERS: BRITISH AND UNITED STATES (KHUM) 3 Credit Hours

Introduction to British and U.S. writers of the 20th and 21st centuries; study of their works in their literary and cultural contexts.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, Transfer Module Humanities

ENG 24001 INTRODUCTION TO LITERARY STUDY 3 Credit Hours

Introduction to techniques for reading and writing about literature, with emphasis on reading strategies for prose, poetry and drama. Literary terms, composition of interpretive essays, and literary research is also studied.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Arts and Humanities

ENG 24002 INTRODUCTION TO COMPOSITION THEORY 3 Credit Hours

Provides an introduction to composition theory, research in writing studies and pedagogical practices for academic writing. Students learn different methods of teaching writing by producing essays and projects within different genres and by applying different approaches to composition to their own work. Students examine writing, as well as research and teaching about writing, as socially, politically and historically situated activities.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 25001 LITERATURE IN ENGLISH I 3 Credit Hours

British literature written before 1800 studied within a broad historical context. Comprehensive introduction to knowledge and skills that serve as a foundation for further study in literature.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011, or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Arts and Humanities

ENG 25002 LITERATURE IN ENGLISH II 3 Credit Hours

British literature written since 1800 studied within a broad historical context. Comprehensive introduction to knowledge and skills that serve as a foundation for further study in literature.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence Based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011, or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Arts and Humanities

ENG 25004 LITERATURE IN THE UNITED STATES I 3 Credit Hours

U.S. literature from the colonial period until 1865 studies within a broad historical context. Comprehensive introduction to knowledge and skills that serve as a foundation for further study in literature.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence Based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011, or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Arts and Humanities

ENG 25005 LITERATURE IN THE UNITED STATES II 3 Credit Hours

U.S. literature from 1865 to the present studied within a broad historical context. Comprehensive introduction to knowledge and skills that serve as a foundation for further study in literature.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011, or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Arts and Humanities

ENG 26001 POPULAR FORMS OF LITERATURE 3 Credit Hours

Introduction to popular forms of literature such as the western, the detective story, science fiction, fantasy, the war story and others.

Prerequisite: Minimum 26 ACT combined English/writing score; or minimum 600 SAT writing score; or ENG 11002; or ENG 11011; or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 26095 SOPHOMORE SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit) In-depth study of a particular writer, theme or literary movement, such as literature and film, gothic novels.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011, or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30050 WRITING AND RHETORIC IN A DIGITAL AGE 3 Credit Hours

Writing course with a focus on learning and using a variety of tools available within contemporary digital composing environments.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30051 WRITING, RHETORIC AND NEW MEDIA 3 Credit Hours

Rhetorical principles for multimodal writing to produce rhetorically effective professional, scholarly, personal, and civic texts that integrate some blend of written word, visuals, images, audio and video.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30053 WRITING FOR VIDEO GAMES 3 Credit Hours

Video Game Writing, a fast-paced and dynamic discipline, encompasses ever-evolving skills and techniques from many areas, including fiction writing, script crafting, game design, and storytelling. Particular attention will be given to writing skills connected with the development of characters, plots, and worlds. In addition, this course will focus on specific techniques drawn from these writing and design areas, highlighting materials from writers and designers involved in the industry.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

ENG 30062 PRINCIPLES OF TECHNICAL WRITING 3 Credit Hours

Introduces theoretical principles of technical communication. Extensive practice in the use, evaluation and production of complex technical documents including research reports/research proposals. Emphasis on oral, written and electronic communication.

Prerequisite: Minimum C- grade in ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30063 PROFESSIONAL WRITING 3 Credit Hours

Practice norms and strategies of effective workplace communication.

Prerequisite: Minimum C- grade in ENG 21011 or HONR 10297; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Business

ENG 30064 ARGUMENTATIVE PROSE WRITING 3 Credit Hours

Practice in writing argumentative essays, with emphasis on discussion of student work.

Prerequisite: Minimum C- grade in ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30065 EXPOSITORY PROSE WRITING 3 Credit Hours

Practice in prose composition with emphasis on exposition and discussion of student work.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30066 WRITING IN THE PUBLIC SPHERE (ELR) 3 Credit Hours

Writing course focusing on a multimodal service-learning project collaborating with peer and community partners in an online, hybrid or face-to-face delivery system.

Prerequisite: Minimum C- grade in ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 30067 FICTION WRITING I 3 Credit Hours

Instruction and practice in writing fiction with specific models and discussions of student work on a weekly basis.

Prerequisite: ENG 20021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30068 FICTION WRITING II 3 Credit Hours

Continued instruction and practice in writing of fiction with specific models and discussion of student work on a weekly basis.

Prerequisite: ENG 30067.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30069 POETRY WRITING I 3 Credit Hours

Instruction in and practice of writing poetry with specific models and discussion of student work on a weekly basis.

Prerequisite: ENG 20021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30070 POETRY WRITING II 3 Credit Hours

Continued practice in writing of poetry with specific models and discussion of student work on a weekly basis.

Prerequisite: ENG 30069.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30071 CREATIVE NONFICTION 3 Credit Hours

Instruction and practice in writing creative nonfiction with specific models and discussions of student work on a weekly basis.

Prerequisite: Minimum C grade in ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30074 GRAMMAR FOR EDITING 3 Credit Hours

Course focuses on editing practices that require knowledge of the rules of grammar, usage, and stylistic conventions in a variety of professional fields.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30075 STARTING A NOVEL 3 Credit Hours

Studies aspects of novel writing, building toward a final project in which students develop a chapter of their own novels.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 30095 JUNIOR SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit)An opportunity to focus on important issues in literature, writing, criticism or cultural studies.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31001 FUNDAMENTAL ENGLISH GRAMMAR 3 Credit Hours

Study of grammatical structures and matters of usage and style in edited U.S. English.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31002 HISTORY OF THE ENGLISH LANGUAGE 3 Credit Hours

Study of the development of the English language from the Indo-European period to the present.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31003 LINGUISTICS 3 Credit Hours

Survey of language study including linguistic tools of analysis such as phonetics, morphology and syntax, and selected topics in applied linguistics.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31004 LEXICOLOGY/LEXICOGRAPHY 3 Credit Hours

In-depth study of the lexicon in language use and the reasons for its expansion and continuous change. Study of tools in lexicography and analysis of the role of lexicography in language education.

Prerequisite: ENG 31003.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31005 CHILD SECOND LANGUAGE ACQUISITION 3 Credit Hours

Explores theory, research and teaching/learning applications of second language acquisition in children.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31006 WORLD ENGLISHES (WIC) 3 Credit Hours

Explores English varieties in the context of world languages, examining language politics with a focus on first/second language education and literacy in an electronic age.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

ENG 31007 PEDAGOGY FOR TEACHING ENGLISH AS A SECOND LANGUAGE 3 Credit Hours

Theoretical bases, approaches, techniques of second language pedagogy at the elementary and secondary levels. Inquiry into English as a Second Language methods, materials and lesson planning.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31008 GRAMMAR FOR TEACHING ENGLISH AS A SECOND/ FOREIGN LANGUAGE 3 Credit Hours

Introduces students to grammars of spoken and written English and pedagogical grammar. Topics include parts of speech, tense and aspect, clause and phrase types, grammar in genre and pedagogical applications relevant to the English as a second/foreign language profession.

Prerequisite: ENG 31001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31009 ADULT SECOND LANGUAGE ACQUISITION 3 Credit Hours

Explores theory, research, teaching, and learning applications of second language acquisition in adult populations.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31010 THE BILINGUAL MENTAL LEXICON 3 Credit Hours

Course investigates word memory, meaning and change within language acquisition and teaching. Questions addressed include what it means to 'know' a word, how much vocabulary is needed for different language proficiency levels, the implications of cognates and false cognates and how language change over time may affect vocabulary learning and use. Research tools of corpus linguistics are applied and practiced, including the use of academic and other word lists, concordances in lexical frequency and collocational analyses and data driven learning for second language discovery and acquisition.

Prerequisite: ENG 31003.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31012 GENDER AND LANGUAGE 3 Credit Hours

This course applies linguistic concepts to examine gendered language in written and oral discourse, focusing on the definition of gender and how we experience it in our lives.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 31095 SPECIAL TOPICS IN LINGUISTICS 3 Credit Hours

(Repeatable for credit) Study of specific topics in linguistics such as sociolinguistics, phonetics and phonology or bi- and multi-lingualism.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 32001 CHILDREN'S LITERATURE 3 Credit Hours

Survey of children's literature from Mother Goose rhymes and picture books through modern realistic fiction.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011, or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 32002 LITERATURE FOR YOUNG ADULTS 3 Credit Hours

Study of literature appropriate to young adults.

Prerequisite: ACT English score of 26 or higher; or SAT Evidence based Reading and Writing score of 600 or higher; or ENG 11002, ENG 11011, or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33001 U.S. LITERATURE TO 1865 3 Credit Hours

U.S. literary themes, genres and authors studied in their historical and cultural contexts. Selections from the Colonial period through the Civil War.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33002 U.S. LITERATURE FROM 1865 TO 1945 3 Credit Hours

U.S. literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33003 U.S. LITERATURE FROM 1945 TO PRESENT 3 Credit Hours

U.S. literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of World War II to the present.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33005 NATIVE AMERICAN LITERATURE 3 Credit Hours

This course explores Native American literature from regions of the U.S., including Alaska and Hawaii. Students learn approaches to traditional and contemporary forms of storytelling and song/poetry as well as recent fiction and memoir. Course prepares students to enter dialogue about key elements of Indigenous perspectives as informed readers.

Prerequisite: ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33010 AFRICAN-AMERICAN LITERATURE TO 1900 3 Credit Hours

(Cross-listed with AFS 32001) Study of African-American literature from its beginning to 1900, including such writers as Wheatley, J. Hammon, Terry, B. Hammon, Jones, Marrant, Allen, Hall, Walker, Truth, Garnet, Douglass, Delany, Harper, Stewart, Turner, Jacobs, Keckley, Brown, Wilson, Griggs, Chesnutt and Dunbar.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33012 MODERN AFRICAN-AMERICAN LITERATURE 3 Credit Hours

(Cross-listed with AFS 32002) Study of African-American literature from the early twentieth century to the present. The authors include Toomer, Hughes, Larsen, Wright, Baldwin, Hansberry, Jones, Lorde, Walker, Morrison, Mosley, Youngblood and Carter.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33013 AFRICANA WOMEN'S LITERATURE 3 Credit Hours

(Cross-listed with AFS 37100) Introduces students to literary works by African and Caribbean women.

Prerequisite: ENG 11011.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33014 AFRICAN-AMERICAN WOMEN'S LITERATURE 3 Credit Hours

(Cross-listed with AFS 37200) Introduces students to literary works by African-American women.

Prerequisite: ENG 11011.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 33015 AFRICAN LITERATURES 3 Credit Hours

(Cross-listed with AFS 32050) Examines works of major 20th-century African, African American and Caribbean writers and intellectuals. Authors include Niane, Achebe, Emecheta, Prince, Hurston, Hughes, Césaire, Senghor, Soyinka and many others.

Prerequisite: ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34001 MEDIEVAL LITERATURE 3 Credit Hours

Medieval literary themes, genres, and authors studied in their historical and cultural contexts. Selections from Anglo-Saxon and Middle English literature.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34002 BRITISH LITERATURE, 1500-1660 3 Credit Hours

British literary themes, genres and authors studied in their historical and cultural contexts. Selections from Renaissance and Reformation literature through the English Civil War.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34003 BRITISH LITERATURE, 1660-1800 3 Credit Hours

British literary themes, genres and authors studied in their historical and cultural contexts. Selections from Restoration, Augustan and early Romantic literature.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34004 BRITISH LITERATURE, 1800-1900 3 Credit Hours

British literary themes, genres and authors studied in their historical and cultural contexts. Selections from Romantic and Victorian literature.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34005 BRITISH AND IRISH LITERATURE, 1900-PRESENT 3 Credit Hours

British and Irish literary themes, genres and authors studied in their historical and cultural contexts. Selections from modern and post modern literature.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34011 WORLD LITERATURE IN ENGLISH 3 Credit Hours

An examination of selected writings in English by postcolonial authors from Africa, Asia, the Caribbean and other parts of the world.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34021 WOMEN'S LITERATURE 3 Credit Hours

Critical and theoretical consideration of gender issues concerning British and U.S. women writers studied in their historical and cultural contexts.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34031 SHORT STORY 3 Credit Hours

Critical analysis of short stories written by important world authors. Selections include stories originally written in English and stories translated into English.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34041 FAIRY TALES 3 Credit Hours

Study of classic fairy tales by Perrault, Grimms, Andersen and others as fundamental texts of Western culture worthy of literary criticism.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34055 SHAKESPEARE 3 Credit Hours

Study of plays representing Shakespeare's entire career, including Henry IV parts I and II, The Merchant of Venice, Measure for Measure, Hamlet, Othello and The Tempest.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34065 CHAUCER 3 Credit Hours

Close study of Chaucer's Canterbury Tales, with some attention to courtly poems and/or selected lyrics.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34070 KNIGHTS AND OUTLAWS IN LITERATURE AND CULTURE 3 Credit Hours

This course invites students to explore literary representations of iconic medieval figures while examining the historical and cultural contexts that produced them. The focus is on Arthurian literature along with the "Matter of the Greenwood" (medieval outlaw literature). Course lectures cover the origins of these figures and trace their representation from the Middle Ages to the present. Emphasis is placed on the changes the figures/stories have undergone and how this is reflective of different periods/cultures. Students critically engage the material and produce their own analysis of the literature set within a historical/cultural context.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 34090 SHAKESPEARE IN PERFORMANCE (ELR) 3 Credit Hours

(Repeatable for credit) Course is designed around a field trip to the American Shakespeare Center in Staunton, VA, during which students attend performances of plays and participate in workshops. Students also attend at least one performance of an early modern play staged in Northeast Ohio. Students formally study all the plays before attending performances of them.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture, Study Away

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 34095 SPECIAL TOPICS: MAJOR AUTHOR STUDIES 3 Credit Hours

(Repeatable for credit when topics varies) Intensive study of one or more authors from the English-speaking world.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 35105 LITERATURE, CULTURE AND ENVIRONMENT 3 Credit Hours

Studies literature and other cultural artifacts in the context of environment and nonhuman entities more generally, including plants, animals, landscapes, buildings, roads, and more. Investigates such issues as ecological crisis, climate change, species extinctions, the impacts of geography on culture, urban environments, space and place, nonhuman lives, wilderness, and more. Courses may focus on a single national literature, or on a particular time period, or they may be thematically, regionally, or otherwise organized.

Prerequisite: ENG 11011 or HONR 10197.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 35201 THE BIBLE AS LITERATURE 3 Credit Hours

Study of Bible as a great book subject to literary criticism and as a main document of Western culture. Old and New Testaments read.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 35301 LESBIAN, GAY, BISEXUAL AND TRANSGENDER: CRITICAL PERSPECTIVES 3 Credit Hours

Study of theory, language and other aspects of lesbian, gay, bisexual and transgendered literature and culture.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 35401 SCIENCE FICTION 3 Credit Hours

Study of the origins, history, themes and major works of science fiction drawn from a variety of national literatures, as well as the adaptation of literary works into film, television, graphic novels, video games, and other forms.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 36005 FILM AND NARRATIVE 3 Credit Hours

Studies film as narrative, as story. Emphases will range from thematically oriented courses to courses organized by historical period, national context, or other criteria. Courses may investigate literary texts (such as novels or plays) made into films or the relationship between literature and film in other ways.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 37001 CLASSICAL RHETORIC 3 Credit Hours

Ancient approaches to rhetoric studied in their historical and cultural contexts. Selections from Greek and Roman thinkers such as the Sophists, Plato, Aristotle, Cicero and Quintilian.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 38001 CRITICAL THEORY AND READING 3 Credit Hours

Introduction to major interpretive paradigms in literary studies, from American New Criticism to the present, with emphasis on strategies for analyzing poetry, drama and narrative fiction.

Prerequisite: ENG 21011 or HONR 10297; and ENG 24001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 38002 RHETORIC AND WRITING STUDIES 3 Credit Hours

Introduction to theories and scholarship that have shaped the disciplinary study of rhetoric and writing, including key figures and concepts from classical and modern rhetoric that continue to influence contemporary writing scholarship and pedagogy.

Prerequisite: ENG 21011 or HONR 10297; and ENG 24001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 38895 SPECIAL TOPICS IN WRITING 3 Credit Hours

(Repeatable for credit) Topics vary with an emphasis on writing may. Topics include editing, publishing and grammar.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 39095 SPECIAL TOPICS IN LITERARY HISTORY 3 Credit Hours

(Repeatable for credit) Topics vary in the study of selected literary histories such as the travel narrative, the fairy tale, the detective story and postcolonial literature.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 39495 SPECIAL TOPICS IN LITERATURE 3 Credit Hours

(Repeatable for credit) Special topics include but are not limited to drama, poetry, fiction, ethnic literature, women's literature and comparative literature.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 39595 SPECIAL TOPICS IN LITERARY CRITICISM 3 Credit Hours

(Repeatable for credit) Study of selected topics in literary criticism such as reader response criticism, psychoanalytic methodologies or Marxist approaches.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 39895 SPECIAL TOPICS IN RHETORIC, COMPOSITION AND WRITING 3 Credit Hours

(Repeatable for credit) Study of selected topics in rhetoric, composition and writing such as historical and contemporary studies of political and professional discourse.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 39995 SPECIAL TOPICS CULTURAL STUDIES 3 Credit Hours

(Repeatable for credit) Study of selected topics in cultural studies organized around a particular mode or methodology of cultural analysis.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 40072 HOW TO EDIT PROFESSIONALLY 3 Credit Hours

Provides students with an overview and practical experience of the editing and proofreading process for the professional publishing industry. Provides instruction, practice and feedback on editing documents academic and nonacademic, digital and print, often including fact-checking, proofreading, working with social media and more.

Prerequisite: ENG 21011 or HONR 10297; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 40073 HOW TO PUBLISH: BOOKS AND BEYOND 3 Credit Hours

Students learn how to undertake the publishing process for books, articles and more. Addresses how to conceive of publishable work, create the content, locate publishing venues, communicate with those venues, market products and other elements of publishing. Students have the opportunity to submit their work for actual publication as part of this course.

Prerequisite: ENG 21011 or HONR 10297; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 40089 INTERNATIONAL EXPERIENCE: THEMES IN STUDY ABROAD (ELR) 3 Credit Hours

(Repeatable for credit) This course invites students to explore English themes while traveling abroad. Students learn about the course material within a particular/relevant geographic/cultural setting. Course lectures and discussion prior to the class trip prepare students to situate the material within the geographic/cultural context, thus prompting students to be critically engaged during the travel dates. After the study abroad portion of the course, students are required to evaluate the course material/travel via a final project that draws connections between both.

Prerequisite: ENG 21011 or HONR 10297; and special approval.

Schedule Type: International Experience, Lecture

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 40099 WRITING PORTFOLIO (ELR) 2 Credit Hours

Directed practice in constructing a portfolio of original writing, which may be creative, expository, technical or preprofessional in nature.

Prerequisite: Creative Writing minor or Professional and Technical Writing minor; and junior standing.

Schedule Type: Project or Capstone

Contact Hours: 2 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

ENG 41001 SOCIOLINGUISTICS IN SCHOOLING (WIC) 3 Credit Hours

Examines the interactions between society and language. Explores pedagogical implications of language variation.

Prerequisite: ENG 21011 or HONR 10297.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

ENG 41003 LANGUAGE CURRICULUM, MATERIALS AND ASSESSMENT
3 Credit Hours

Advanced inquiry into English as a Second Language teaching methods, curriculum design, and materials selection, use and design. Assessment of learners in a student-centered ESL or language curriculum.

Prerequisite: ENG 31007.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 41092 ESL PRACTICUM IN INTENSIVE ENGLISH PROGRAMS (ELR)
3 Credit Hours

(Repeatable for credit) Provides opportunities for students to observe, assist, and or teach English as a second language in the ESL Center, including 70 fieldwork hours. Participating ESL Center classes are held Monday through Friday.

Pre/corequisite: ENG 31007.

Schedule Type: Lecture, Practical Experience

Contact Hours: 2 lecture, 5 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 41093 VARIABLE TITLE WORKSHOP IN ENGLISH
1-6 Credit Hours

(Repeatable for credit) An opportunity to focus on concerns of the discipline and on new developments in writing, criticism, literature and career opportunities.

Prerequisite: Junior standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

ENG 41094 COLLEGE TEACHING ASSISTANT (ELR)
1-3 Credit Hours

(Repeatable for credit) An opportunity to assist in the development and delivery of a college course in English. Expectations may include group and class leadership, selection of materials, development of classroom inquiry techniques, and multimedia support.

Prerequisite: Senior standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 41096 INDIVIDUAL INVESTIGATION
1-3 Credit Hours

(Repeatable for credit) Open to advanced undergraduate students in English or TESL. Only 3 hours of individual investigation count toward the English major.

Prerequisite: Junior standing; and special approval of instructor and department.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ENG 41098 GUIDED RESEARCH IN ENGLISH (ELR)
1-3 Credit Hours

(Repeatable for credit) Independent student research with faculty guidance.

Prerequisite: Junior standing; and special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 41192 ESL PRACTICUM IN A P-12 SETTING (ELR)
3 Credit Hours

(Repeatable for credit) Provides students seeking educational licensure opportunities to observe, assist, and or teach English as a second language in P-12 schools, including 70 field-clinical hours. Students must complete the Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) background checks and submit results to authorized personnel at the assigned school-agency before the first day of Practicum.

Prerequisite: ENG 31005.

Pre/corequisite: ENG 31007.

Schedule Type: Lecture, Practical Experience

Contact Hours: 2 lecture, 5 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 41198 RESEARCH ASSISTANT IN ENGLISH (ELR)
1-3 Credit Hours

(Repeatable for credit) An opportunity to assist a faculty member on faculty initiated research in criticism and literary analysis, rhetoric and composition, or applied language acquisition and teaching.

Prerequisite: Junior standing; and special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 41292 TEACHING ENGLISH AS A FOREIGN LANGUAGE PRACTICUM (ELR)
3,6 Credit Hours

(Repeatable for a maximum of 12 credits) Students observe, participate and teach in a number of school contexts in Florence, Italy, from primary to secondary, community and higher education. Course gives students authentic practice teaching English in the foreign language context.

Pre/corequisite: ENG 31007.

Schedule Type: Practical Experience

Contact Hours: 5-10 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 41392 STUDENT TEACHING (ELR)
9 Credit Hours

Full-time student teaching over 13 weeks in English as a second language in grades P-12. Background check by the Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) required to be presented to authorized personnel at the assigned school agency before the first day of student teaching.

Prerequisite: CULT 29535 and EPSY 29525 and ETEC 39525; and eligibility for student teaching; and special approval.

Corequisite: ENG 41525.

Schedule Type: Practical Experience

Contact Hours: 27.733 other

Grade Mode: Satisfactory/Unsatisfactory

Attributes: Experiential Learning Requirement

ENG 41492 TUTORING OF WRITING (ELR)
1-3 Credit Hours

(Repeatable for credit) Provides training and professional development for writing center tutors. Course covers writing center theory and practice, the history of writing centers, composition pedagogy, writing across the curriculum, tutoring ESL students, assessing writing center services and the development of outreach programming.

Prerequisite: ENG 21011 or HONR 10297 with a minimum C grade.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 41525 INQUIRY INTO PROFESSIONAL PRACTICE 3 Credit Hours

(Slashed with ENG 51525) Preparation for student teaching of English as a second language, grades K-12.

Prerequisite: CULT 29535 and EPSY 29525 and ETEC 39525.

Corequisite: ENG 41392.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 42092 WRITING INTERNSHIP (ELR) 1-3 Credit Hours

(Repeatable for credit) Guided internship in professional writing, editing, or publishing. Possible placements include the KSU Press, Institute for Bibliography and Editing, and WICK Poetry Center.

Prerequisite: Junior standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

Attributes: Experiential Learning Requirement

ENG 42192 SERVICE LEARNING IN ENGLISH STUDIES (ELR) 3 Credit Hours

(Repeatable for credit) Provides guided opportunities for completing service-learning related to English Studies. Service placements meet a community need and provide practice in such areas as writing, editing, publishing, teaching, and tutoring.

Prerequisite: Junior standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 43092 TEACHING POETRY IN THE SCHOOLS (ELR) 3 Credit Hours

(Repeatable for credit) Exploration of various approaches to teaching poetry writing, poetry appreciation, and poetry performance in school contexts. Study of creative writing as a means of developing literacy and promoting human growth.

Prerequisite: Sophomore standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENG 49091 SENIOR SEMINAR (ELR) (WIC) 3 Credit Hours

(Repeatable for credit) Intensive study of in English studies. Students complete a long writing project during the semester.

Prerequisite: ENG 38001 or ENG 38002; and English major.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

ENG 49095 SENIOR AND GRADUATE SPECIAL TOPICS 3 Credit Hours

(Slashed with ENG 59095)(Repeatable for credit) Intensive study of topics that vary each semester.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 51525 INQUIRY INTO PROFESSIONAL PRACTICE 3 Credit Hours

(Slashed with ENG 41525) Preparation for student teaching of English as a second language, grades K-12.

Prerequisite: Graduate standing.

Corequisite: ENG 53392.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 53392 STUDENT TEACHING 6 Credit Hours

Full-time student teaching over 13 weeks in English as a second language in grades P-12. Background check by the Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) required to be presented to authorized personnel at the assigned school agency before the first day of student teaching. To be enrolled in the course, students must have official valid certification of child safety training, approved basic life support and ALICE training presented to the campus office of clinical experience.

Prerequisite: Eligibility for student teaching; graduate standing; and special approval.

Corequisite: ENG 51525.

Schedule Type: Practical Experience

Contact Hours: 27.733 other

Grade Mode: Satisfactory/Unsatisfactory

ENG 59095 SENIOR AND GRADUATE SPECIAL TOPICS 3 Credit Hours

(Slashed with ENG 49095)(Repeatable for credit) Intensive study of topics that vary each semester.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 61000 INTRODUCTION TO RESEARCH AND PEDAGOGY IN CRITICAL READING 3 Credit Hours

Introduction to contemporary methods of literary and cultural criticism and to the profession of teaching English in college.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 61094 INTRODUCTION TO RESEARCH IN THE TEACHING OF COLLEGE WRITING 3 Credit Hours

(Repeatable for credit)Using the Kent program as an example, the focus will be on teaching composition, literature and language along with the needed planning and evaluation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 62291 SEMINAR:BRITISH LITERATURE 1800 TO PRESENT 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 72291) In-depth treatment of various topics from the Romantic and Victorian periods and the 20th century.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 63001 METHODOLOGY OF TEACHING ENGLISH AS A SECOND LANGUAGE 3 Credit Hours

(Slashed with ENG 73001) The theory and methodology of teaching English as a second language.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63033 THEORIES IN SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Cross-listed with MCLS 60661) (Slashed with ENG 73033) This course surveys the major theoretical approaches to language acquisition, concentrating on second language acquisition and the relationship between acquisition/learning research and second language teaching approaches.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63034 SOCIOLINGUISTICS 3 Credit Hours

(Cross-listed with MCLS 60625)(Slashed with ENG 73034) Discussion of sociolinguistic approaches to understanding literacy, language in workplaces and classrooms and societal multilingualism. Survey of trends in sociolinguistic thought and method.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63038 TEACHING LITERATURE AND CULTURE 3 Credit Hours

(Cross-listed with MCLS 60622)(Slashed with ENG 83038 and MCLS 80622) Students explore theories of literature and culture teaching as well as strategies for teaching literature and culture.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63039 SECOND LANGUAGE CURRICULUM AND ASSESSMENT 3 Credit Hours

(Cross-listed with MCLS 60663)(Slashed with ENG 83039 and MCLS 80663) Students study second language curriculum and assessment design and current issues, including oral proficiency testing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63040 LINGUISTICS FOR THE LANGUAGE PROFESSIONS 3 Credit Hours

(Cross-listed with MCLS 60601)(Slashed with ENG 83040) Students are introduced to basic linguistic issues and how these relate to language professions. Course focuses on functional principles, especially options to express textual, interpersonal and ideational/experiential meaning.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63041 DESCRIPTIVE GRAMMAR OF ENGLISH 3 Credit Hours

(Slashed with ENG 83041) This course covers common and often taught aspects of grammatical structures at the sentence and discourse levels, taking into consideration lexical-grammatical connections between form, meaning and usage to maximize real-life and authentic communication for language teaching. Students gain experience developing lessons and assessments using corpus linguistic tools, identifying common learner error patterns and discussing communicative activities and techniques.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63043 SECOND LANGUAGE WRITING 3 Credit Hours

(Cross-listed with MCLS 60665)(Slashed with ENG 83043) Theory and practice of teaching second language writing. Topics include current and historic approaches to second language writing, approaches to tutoring international students in writing centers, teacher and peer response, error correction and technology of second language writing instruction.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63044 SECOND LANGUAGE READING 3 Credit Hours

(Cross-listed with MCLS 60664)(Slashed with ENG 83044) Addresses a wide variety of topics related to second language reading, including theoretical perspectives, the process of learning to read, models of how reading happens, comprehension, fluency, discourse structures, strategy use and vocabulary acquisition. Teaching issues related to second language reading are also addressed directly, namely assessment and curriculum building.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 63045 ENGLISH FOR SPECIFIC PURPOSES 3 Credit Hours

(Slashed with ENG 83045) Examination of academic, workplace and vocational language in the design of second language instructional materials and curriculum. Discourse domains from medical to agricultural to business are analyzed through applied linguistic tools. Curriculum and instructional materials are studied and designed.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 63046 SECOND LANGUAGE LISTENING AND SPEAKING 3 Credit Hours

(Slashed with ENG 83046) Theory and practice for second language listening and speaking. Topics include current approaches to second language speech perception and production; issues of teaching and assessing second language listening and speaking; and phonetic, phonological and acoustic analyses for language teachers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63047 HERITAGE LANGUAGES AND SECOND LANGUAGE LEARNING 3 Credit Hours

(Cross-listed with MCLS 60624)(Slashed with ENG 83047) Theory and practice of language education for heritage language speakers. Ethnic, minority, ancestral and community languages and language practices are explored with implications for second and additional language learning in English, foreign language, bilingual education.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 63048 SOCIOCULTURAL THEORY AND FOREIGN AND SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Cross-listed with MCLS 60623)(Slashed with ENG 83048 and MCLS 80623) The foundations of sociocultural theory and its applications to the second and foreign language classroom.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63049 SECOND LANGUAGE RESEARCH METHODS 3 Credit Hours

(Cross-listed with MCLS 63049)(Slashed with ENG 83049) This course provides students with skills for reading, interpreting and conducting research studies investigating second/foreign language teaching, learning and/or use. Students learn about quantitative and qualitative research methods commonly used for second language research. Students also conduct a research project.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 63391 SEMINAR: LINGUISTICS 3 Credit Hours

(Slashed with ENG 73391)(Repeatable for credit) In-depth treatment of various topics from modern linguistics, including phonology, morphology and various generative grammars.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 64070 WRITING POETRY 3 Credit Hours

(Cross-listed with ENG 74070) Advanced workshop in creative writing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 64071 WRITING FICTION 3 Credit Hours

(Slashed with ENG 74071) Advanced workshop in the writing of fiction.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 65012 READING AND INTERPRETING RESEARCH ON WRITING 3 Credit Hours

(Slashed with ENG 75012) Course focuses on how to read critically and interpret published research by examining the principle means through which "knowledge" is constructed in writing research.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 65022 RHETORICAL THEORY:GREEK AND ROMAN 3 Credit Hours

(Slashed with ENG 75022) Course examines classical Greek and Roman rhetorical traditions and, to a lesser extent, their reappearance in contemporary rhetorical theories and composition pedagogies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 65027 ROLE OF COMPOSITION 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 75027) Study of composition's contributions to writing studies such as writing pedagogy/theory, writing technologies, assessment, process research, WAC, program administration, rhetoric and cultural studies.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 65035 LINGUISTICS FOR RHETORICIANS 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 75035) Provides an introduction to linguistic theories, concepts and tools relevant to the teaching and researching of various dimensions of written texts.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 65051 LITERACY: FUNCTIONS, PRACTICES AND HISTORY 3 Credit Hours

(Slashed with ENG 75051) Introduces students to a range of research methodologies through theoretical scholarship and guided practice, culminating in a pilot research project. Course surveys and critically evaluates historical and contemporary studies of literacy in terms of the three dominant metaphors (adaptation, power, grace) those studies employ.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 65052 WRITING ACTIVITY AS SOCIAL PRACTICE 3 Credit Hours

(Slashed with ENG 75052) Through Vygotskian-based activity theory and contemporary theories of practice, course explores the rhetorical bases and implications of studying literacy and writing as embedded activity.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 65053 WRITING TECHNOLOGIES 3 Credit Hours

(Slashed with ENG 75053) Course critically examines theoretical and pedagogical claims concerning writing technologies and begins identifying the conceptual components of a grounded theory for technology-enhanced literacy learning.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66051 SHAKESPEARE 3 Credit Hours

(Slashed with ENG 76051) Close reading of selected plays and poems by Shakespeare with some emphasis on critical and interpretative problems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66101 LITERATURE OF THE UNITED STATES THROUGH THE CIVIL WAR 3 Credit Hours

(Slashed with ENG 76101) Broad, synchronic study of U.S. literature identified with a single period in literary history embracing various genres and relating the literature to other cultural phenomena of the time.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66103 ETHNIC LITERATURE OF THE UNITED STATES 3 Credit Hours

(Slashed with ENG 76103) An examination of selected fiction and theory by ethnic American authors, or of literary representations of special topics relating to ethnic and racial identity.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66104 AFRICAN-AMERICAN LITERATURE 3 Credit Hours

(Slashed with ENG 76104) An examination of selected African-American fiction and theory, or of a special topic relating to literary representations of African-American culture identity or history.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66302 POST-COLONIAL LITERATURE IN ENGLISH 3 Credit Hours

(Slashed with ENG 76302) An examination of selected fiction and theory in English by post-colonial authors from India, Africa, South Africa, the Caribbean and elsewhere.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66491 LITERARY MOVEMENTS 3 Credit Hours

(Slashed with ENG 76491)(Repeatable for credit) An examination of one particular movement of literary history via its writers, artists, benefactors, thinkers and critics.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 66501 NARRATIVE LITERATURE 3 Credit Hours

(Slashed with ENG 76501) Close readings of selected novels, short stories biographies autobiographies life writing journals and other forms of narrative and verse by British American and other writers in English from one or more periods in literary history.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66502 DRAMATIC LITERATURE 3 Credit Hours

(Slashed with ENG 76502) Close reading of selected plays and other dramatic forms by writers of Britain, Ireland and the United States from one or more periods in literary history.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66592 PRACTICUM IN TUTORING WRITING 1 Credit Hour

(Repeatable for credit) Practical training and experience in tutoring composition.

Prerequisite: Graduate standing.

Schedule Type: Lecture, Practical Experience

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ENG 66595 SPECIAL TOPICS:AUTHORS AND AUTHORSHIP 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 76595) Research-based study of problems in the theory or practice of authorship. Typical courses include "The Creative Process," "Authors and Printers," "Faulkner in Hollywood".

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66705 NARRATIVE FUNCTIONS AND CONSEQUENCES 3 Credit Hours

(Slashed with ENG 76705) Identifies and studies the multifarious ways that narratives of all shapes and sizes permeate and structure one's perception, thinking, feeling, understanding, beliefs, values, ideals and actions in all areas of people's personal and collective lives.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66706 UNDERSTANDING RESEARCH METHODS AND DESIGN IN LITERATURE AND WRITING STUDIES 3 Credit Hours

(Slashed with ENG 76706) Analytical reading and interpretation of published research and criticism, its assumptions, trends and controversies; students identify and contextualize present opportunities for research in field.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66707 PRACTICING NARRATIVE RESEARCH METHODS AND DESIGN 3 Credit Hours

(Slashed with ENG 76707) Engages students in a range of research methodologies through theoretical scholarship and guided practice, culminating in a pilot research project.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 66791 SEMINAR:BRITISH AND IRISH LITERATURE 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 76791) In-depth treatment of various topics from Old English literature, Beowulf, Middle English literature and Chaucer.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 66891 SEMINAR:LITERATURE OF THE UNITED STATES 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 76891) This course will examine the construction of American identities. Writers typically discussed are Howells, Dreiser, Cahan, Anderson, Fitzgerald, Dos Passos, Wright, Baldwin, Bellow, Ikada, Jen and others. Content varies.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 66895 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 76895) Study of selected special topics in literature.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 66991 SEMINAR:GENRE 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 76991) In-depth examination of one or more kinds of texts focusing on how forms are defined historically and analytically, with special attention to current approaches.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 67104 SOCIAL AND CULTURAL THEORY AND CRITICISM 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 77104) Study of important issues and concepts in Marxist, new historicist, ethnic, post- colonialist and other modes of social/cultural theory and criticism.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 67591 SEMINAR: THEORY AND CRITICISM 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 77591) In-depth study of important topics in contemporary theory and criticism.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 67691 SEMINAR:SCHOLARLY EDITING 3 Credit Hours

(Repeatable for credit when topic varies) (Slashed with ENG 77691) In-depth treatment of various topics from modern scholarly editing.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 68093 VARIABLE TITLE WORKSHOP IN ENGLISH 2-6 Credit Hours

(Repeatable for credit) (Slashed with ENG 78093) Designed to focus on concerns of the profession/discipline to bring secondary teachers up to date on new developments in the field.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory

ENG 68096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) (Slashed with ENG 78096) Intensive study of selected writer or special topic.

Prerequisite: Graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ENG 68098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for master's level graduate students.

Credits earned may be applied toward meeting degree requirements if the department approves.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory

ENG 68392 PRACTICUM IN TEACHING COLLEGE ENGLISH 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 78392) Practical training and experience in teaching beginning composition courses.

Prerequisite: Graduate standing.

Schedule Type: Practical Experience

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 68492 PRACTICUM IN TEACHING INTERNATIONAL STUDENTS 3 Credit Hours

(Slashed with ENG 88492)(Repeatable for credit) Practical training and experience with teaching English to international students in a university-intensive English program. Field placement in the ESL Center requires 70 field clinical hours. Participating classes are Monday through Friday.

Prerequisite: Graduate standing.

Pre/corequisite: ENG 63001.

Schedule Type: Lecture, Practical Experience

Contact Hours: 3 lecture, 5 other

Grade Mode: Standard Letter

ENG 68592 PRACTICUM IN TEACHING P-12 ENGLISH LANGUAGE LEARNERS 3 Credit Hours

(Repeatable for credit) Practical training and experience in teaching English to speakers of other languages at P-12 schools, including 100 field clinical hours at an assigned P-12 school.

Prerequisite: TESL Education concentration within the Teaching English as a Second Language major; and graduate standing.

Pre/corequisite: ENG 63001.

Schedule Type: Field Experience

Contact Hours: 2 lecture, 100 other

Grade Mode: Standard Letter

ENG 69199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 semester hours, 2 to 6 in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ENG 69299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: ENG 69199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ENG 72291 SEMINAR:BRITISH LITERATURE 1800 TO PRESENT 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 62291) In-depth treatment of various topics from the Romantic and Victorian periods and the 20th century.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 73001 METHODOLOGY OF TEACHING ENGLISH AS A SECOND LANGUAGE 3 Credit Hours

(Slashed with ENG 63001) The theory and methodology of teaching English as a second language.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 73033 THEORIES IN SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Slashed with ENG 63033) (Cross-listed with MCLS 60661) This course surveys the major theoretical approaches to language acquisition concentrating on second language acquisition and the relationship between acquisition learning research and second language teaching approaches.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 73034 SOCIOLINGUISTICS 3 Credit Hours

(Slashed with ENG 63034 and MCLS 60625) Discussion of sociolinguistic approaches to understanding literacy, language in workplaces and classrooms and societal multilingualism. Survey of trends in sociolinguistic thought and method.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 73391 SEMINAR:LINGUISTICS 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 63391) In-depth treatment of various topics from modern linguistics, including phonology, morphology and various generative grammars.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 74070 WRITING POETRY 3 Credit Hours

(Slashed with ENG 64070) Advanced workshop in creative writing.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 74071 WRITING FICTION 3 Credit Hours

(Slashed with ENG 64071) Advanced workshop in the writing of fiction.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 75012 READING AND INTERPRETING RESEARCH ON WRITING 3 Credit Hours

(Slashed with ENG 65012) Course focuses on how to read critically and interpret published research by examining the principle means through which "knowledge" is constructed in writing research.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 75022 RHETORICAL THEORY:GREEK AND ROMAN 3 Credit Hours

(Slashed with ENG 65022) Course examines classical Greek and Roman rhetorical traditions and, to a lesser extent, their reappearance in contemporary rhetorical theories and composition pedagogies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 75027 ROLE OF COMPOSITION 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 65027) Study of composition's contributions to writing studies such as writing pedagogy/theory, writing technologies, assessment, process research, WAC, program administration, rhetoric and cultural studies.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 75035 LINGUISTICS FOR RHETORICIANS 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 65035) Provides an introduction to linguistic theories, concepts and tools relevant to the teaching and researching of various dimensions of written texts.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 75051 LITERACY: FUNCTIONS, PRACTICES AND HISTORY 3 Credit Hours

(Slashed with ENG 65051) Introduces students to a range of research methodologies through theoretical scholarship and guided practice, culminating in a pilot research project. Course surveys and critically evaluates historical and contemporary studies of literacy in terms of the three dominant metaphors (adaptation, power, grace) those studies employ.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 75052 WRITING ACTIVITY AS SOCIAL PRACTICE 3 Credit Hours

(Slashed with ENG 65052) Through Vygotskian-based activity theory and contemporary theories of practice, course explores the rhetorical bases and implications of studying literacy and writing as embedded activity.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 75053 WRITING TECHNOLOGIES 3 Credit Hours

(Cross-listed with ENG 65053) Course critically examines theoretical and pedagogical claims concerning writing technologies and begins identifying the conceptual components of a grounded theory for technology-enhanced literacy learning.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76051 SHAKESPEARE 3 Credit Hours

(Slashed with ENG 66051) Close reading of selected plays and poems by Shakespeare with some emphasis on critical and interpretative problems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76101 LITERATURE OF THE UNITED STATES THROUGH THE CIVIL WAR 3 Credit Hours

(Slashed with ENG 66101) Broad, synchronic study of U.S. literature identified with a single period in literary history embracing various genres and relating the literature to other cultural phenomena of the time.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76103 ETHNIC LITERATURE OF THE UNITED STATES 3 Credit Hours

(Slashed with ENG 66103) An examination of selected fiction and theory by ethnic American authors, or of literary representations of special topics relating to ethnic and racial identity.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76104 AFRICAN-AMERICAN LITERATURE 3 Credit Hours

(Slashed with ENG 66104) An examination of selected African-American fiction and theory, or of a special topic relating to literary representations of African-American culture, identity or history.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76302 POST-COLONIAL LITERATURE IN ENGLISH 3 Credit Hours

(Slashed with ENG 66302) An examination of selected fiction and theory in English by post-colonial authors from India, Africa, South Africa, the Caribbean and elsewhere.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76491 LITERARY MOVEMENTS 3 Credit Hours

(Slashed with ENG 66491)(Repeatable for credit) An examination of one particular movement of literary history via its writers, artists, benefactors, thinkers and critics.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 76501 NARRATIVE LITERATURE 3 Credit Hours

(Slashed with ENG 66501) Close readings of selected novels, short stories, biographies, autobiographies, life writing, journals, and other forms of narrative and verse by British, American and other writers in English, from one or more periods in literary history.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76502 DRAMATIC LITERATURE 3 Credit Hours

(Slashed with ENG 66502) Close reading of selected plays and other dramatic forms by writers of Britain, Ireland and the United States, from one or more periods in literary history.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76592 PRACTICUM IN TUTORING WRITING 1 Credit Hour

(Repeatable for credit) Practical training and experience in tutoring composition.

Prerequisite: Doctoral standing.

Schedule Type: Lecture, Practical Experience

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ENG 76595 SPECIAL TOPICS:AUTHORS AND AUTHORSHIP 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 66595) Research-based study of problems in the theory or practice of authorship. Typical courses include "the creative process", "authors and printers", "Faulkner in Hollywood".

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76705 NARRATIVE FUNCTIONS AND CONSEQUENCES 3 Credit Hours

(Slashed with ENG 66705) Identifies and studies the multifarious ways that narratives of all shapes and sizes permeate and structure one's perception, thinking, feeling, understanding, beliefs, values, ideals and actions in all areas of people's personal and collective lives.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76706 UNDERSTANDING RESEARCH METHODS AND DESIGN IN LITERATURE AND WRITING STUDIES 3 Credit Hours

(Slashed with ENG 66706) Analytical reading and interpretation of published research and criticism, its assumptions, trends and controversies; students identify and contextualize present opportunities for research in field.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76707 PRACTICING NARRATIVE RESEARCH METHODS AND DESIGN 3 Credit Hours

(Slashed with ENG 66707) Engages students in a range of research methodologies through theoretical scholarship and guided practice, culminating in a pilot research project.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 76791 SEMINAR:BRITISH AND IRISH LITERATURE 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 66791) In-depth treatment of various topics from old English literature, Beowulf, Middle English literature, and Chaucer.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 76891 SEMINAR:LITERATURE OF THE UNITED STATES 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 66891) This course will examine the construction of American identities. Writers typically discussed are Howells, Dreiser, Cahan, Anderson, Fitzgerald, Dos Passos, Wright, Baldwin, Bellow, Ikada, Jen and others. Content varies.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 76895 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 66895) Study of selected special topics in literature.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 76991 SEMINAR:GENRE 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 66991) In-depth examination of one or more kinds of texts focusing on how forms are defined historically and analytically, with special attention to current approaches.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 77104 SOCIAL AND CULTURAL THEORY AND CRITICISM 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 67104) Study of important issues and concepts in Marxist, new historicist, ethnic, post-colonialist and other modes of social cultural theory and criticism.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 77591 SEMINAR:THEORY AND CRITICISM 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 67591) In-depth study of important topics in contemporary theory and criticism.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 77691 SEMINAR:SCHOLARLY EDITING 3 Credit Hours

(Repeatable for credit when topic varies) (Slashed with ENG 67691) In-depth treatment of various topics from modern scholarly editing.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 78093 VARIABLE TITLE WORKSHOP IN ENGLISH 2-6 Credit Hours

(Repeatable for credit) (Cross-listed with ENG 68093) Designed to focus on concerns of the profession/discipline to bring secondary teachers up to date on new developments in the field.

Prerequisite: Doctoral standing.

Schedule Type: Workshop

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory

ENG 78096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) (Slashed with ENG 68096) Intensive study of selected writer or special topic.

Prerequisite: Doctoral standing.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ENG 78392 PRACTICUM IN TEACHING COLLEGE ENGLISH 3 Credit Hours

(Repeatable for credit) (Slashed with ENG 68392) Practical training and experience in teaching beginning composition courses.

Prerequisite: Doctoral standing.

Schedule Type: Practical Experience

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 83038 TEACHING LITERATURE AND CULTURE 3 Credit Hours

(Cross-listed with MCLS 80622)(Slashed with ENG 63038 and MCLS 60622) Students explore theories of literature and culture teaching as well as strategies for teaching literature and culture.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 83039 SECOND LANGUAGE CURRICULUM AND ASSESSMENT 3 Credit Hours

(Cross-listed with MCLS 80663)(Slashed with ENG 63039 and MCLS 60663) Students study second language curriculum and assessment design and current issues, including oral proficiency testing.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 83040 LINGUISTICS FOR THE LANGUAGE PROFESSIONS 3 Credit Hours

(Slashed with ENG 63040 and MCLS 60601) Students are introduced to basic linguistic issues and how these relate to language professions. Course focuses on functional principles, especially options to express textual, interpersonal and ideational/experiential meaning.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 83041 DESCRIPTIVE GRAMMAR OF ENGLISH 3 Credit Hours

(Slashed with ENG 63041) This course covers common and often taught aspects of grammatical structures at the sentence and discourse levels, taking into consideration lexical-grammatical connections between form, meaning and usage to maximize real-life and authentic communication for language teaching. Students gain experience developing lessons and assessments using corpus linguistic tools, identifying common learner error patterns and discussing communicative activities and techniques.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 83043 SECOND LANGUAGE WRITING 3 Credit Hours

(Slashed with ENG 63043 and MCLS 60665) Theory and practice of teaching second language writing. Topics include current and historic approaches to second language writing, approaches to tutoring international students in writing centers, teacher and peer response, error correction and technology of second language writing instruction.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 83044 SECOND LANGUAGE READING 3 Credit Hours

(Slashed with ENG 63044 and MCLS 60664) Addresses a wide variety of topics related to second language reading, including theoretical perspectives, the process of learning to read, models of how reading happens, comprehension, fluency, discourse structures, strategy use and vocabulary acquisition. Teaching issues related to second language reading are also addressed directly, namely assessment and curriculum building.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 83045 ENGLISH FOR SPECIFIC PURPOSES 3 Credit Hours

(Slashed with ENG 63045) Examination of academic, workplace and vocational language in the design of second language instructional materials and curriculum. Discourse domains from medical to agricultural to business are analyzed through applied linguistic tools. Curriculum and instructional materials are studied and designed.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 83046 SECOND LANGUAGE LISTENING AND SPEAKING 3 Credit Hours

(Slashed with ENG 63046) Theory and practice for second language listening and speaking. Topics include current approaches to second language speech perception and production; issues of teaching and assessing second language listening and speaking; and phonetic, phonological and acoustic analyses for language teachers.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 83047 HERITAGE LANGUAGES AND SECOND LANGUAGE LEARNING 3 Credit Hours

(Slashed with ENG 63047 and MCLS 60624) Theory and practice of language education for heritage language speakers. Ethnic, minority, ancestral and community languages and language practices are explored with implications for second and additional language learning in English, foreign language, bilingual education.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ENG 83048 SOCIOCULTURAL THEORY AND FOREIGN AND SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Cross-listed with MCLS 80623)(Slashed with ENG 63048 and MCLS 60623) The foundations of sociocultural theory and its applications to the second and foreign language classroom.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 83049 SECOND LANGUAGE RESEARCH METHODS 3 Credit Hours

(Slashed with ENG 63049 and MCLS 63049) This course provides students with skills for reading, interpreting and conducting research studies investigating second/foreign language teaching, learning and/or use. Students learn about quantitative and qualitative research methods commonly used for second language research. Students also conduct a research project.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 85024 DOMAIN RHETORICS AND THE CONSTRUCTION OF KNOWLEDGE 3 Credit Hours

(Repeatable twice for credit) Course examines disciplinarity and knowledge production as historically and socially situated practices and how they are realized through linguistic, rhetorical and material processes and systems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 85041 FIELD RESEARCH METHODS IN WRITING 3 Credit Hours

Course focuses on qualitative methods for conducting field research in writing within communities of practice and particular contexts and for analyzing and interpreting data.

Prerequisite: 9 credit hours from the following courses: ENG 73034 or ENG 75012 or ENG 75022 or ENG 75051 or ENG 75052 or ENG 75053; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 85042 DISCOURSE ANALYSIS 3 Credit Hours

Explores various approaches to discourse analysis (e.g., critical discourse analysis, narrative theory, systemic functional linguistics) and teaches students how to use them to conduct linguistic analyses of discourse.

We will examine discourse in terms of the key functions language serves as a form of social action: to represent the world, to invoke and create social relationships, interactions, and identities, and to organize utterances into meaningful discursive events and products.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 85054 STUDIES IN LITERACY AND COMMUNITY 3 Credit Hours

Course expands on ENG 75052 by examining in more detail how literacy is embedded in the activities and practices of academic, civic and professional communities.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 85055 THE NATURE AND RELATIONSHIP OF ACADEMIC AND NONACADEMIC LITERACY 3 Credit Hours

Course explores the relationship between academic and non-academic literacy, focusing on relationships pertaining to the school-to-work transitions that students make.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 85056 INTRODUCTION TO THE STUDY OF WRITING ASSESSMENT: RESEARCH, THEORY AND PRACTICE 3 Credit Hours

Provides students with an introduction to the theory, research, and practice of writing assessment outside the classroom, as it is informed through the study of the literatures of college writing assessment and educational measurement. In addition to acquiring a basic understanding of measurement principles like reliability and validity for assessing student writing, students can complete projects of their own design for their own institutions.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 85057 RHETORICAL METHODS 3 Credit Hours

Focuses on methodological practices associated with rhetorical theory and considers the epistemological and ontological underpinnings of these theories' methodologies. Course investigates how these theories know and what they deem worth knowing. The course is designed around several significant approaches to analysis, both classical and contemporary. This orientation is intended to offer background and prompt students to apply those rhetorical methodologies in their own work.

Prerequisite: 6 credit hours from ENG 75012, ENG 75022, ENG 75023; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENG 88098 RESEARCH DOCTORAL 1-15 Credit Hours

(Repeatable for credit) Research for doctoral students who have not yet passed the candidacy examination. Credits earned may be applied toward the degree if department approves.

Prerequisite: Doctoral standing; and special approval of the graduate chairman.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory

ENG 88492 PRACTICUM IN TEACHING INTERNATIONAL STUDENTS 3 Credit Hours

(Slashed with ENG 68492)(Repeatable for credit) Practical training and experience with teaching English to international students in a university-intensive English program. Field placement in the ESL Center requires 70 field clinical hours. Participating classes are Monday through Friday.

Prerequisite: Doctoral standing.

Pre/corequisite: ENG 73001.

Schedule Type: Lecture, Practical Experience

Contact Hours: 3 lecture, 5 other

Grade Mode: Standard Letter

ENG 89199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in two semesters is required first of which will be the semester in which dissertation work is begun and continuing until completion of 30 hours.

Prerequisite: Doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ENG 89299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: ENG 89199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Department of Geography

Environmental Studies (ENVS)

ENVS 22070 NATURE AND SOCIETY (KSS) 3 Credit Hours

Environmental studies takes an interdisciplinary approach to studying the environment, with insights from natural sciences, social sciences and the humanities. This course introduces the discipline and explores theoretical approaches to understanding how humans interact with and perceive their environment. It applies these approaches to some of the world's greatest environmental challenges: climate change, the loss of biodiversity, urban sustainability, food and resource insecurity and the degradation of the physical environment.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

ENVS 30000 ENVIRONMENTAL PROTECTION REGULATIONS AND ASSESSMENT 3 Credit Hours

(Cross-listed with PLST 30000) The Federal and State environmental regulations including the National Environmental Policy Act, the Clean Air Act, the Clean Water Act, Solid and Hazardous Waste regulations (RCRA) and the Superfund Legislation require the utilization of trained environmental professionals to conduct Environmental Site Assessments (ESAs). The focus of this course is to introduce students to the methods and approaches for conducting environmental research and study of industrial sites with respect to environmental policies and regulations. The enforcement of regulations utilize environmental professionals who serve in governmental agencies, work in private environmental companies that provide assessments and consultations for industries, and who are employed by industries that seek qualified employees to conduct assessments, and provide professional guidance for industrial regulatory compliance.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ENVS 30105 CAREER PATHWAYS IN ENVIRONMENTAL STUDIES 1 Credit Hour

Orients students toward various career pathways in environmental studies.

Prerequisite: ENVS 22070; and Environmental Studies major; and junior standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

ENVS 32091 ENVIRONMENTAL STUDIES AND SUSTAINABILITY 2 Credit Hours

Various aspects of environmental studies are explored. Topics vary.

Prerequisite: ENVS 22070; and Environmental Studies major; and junior standing.

Schedule Type: Seminar

Contact Hours: 2 other

Grade Mode: Standard Letter

ENVS 42099 INTEGRATIVE SENIOR PROJECT (ELR) (WIC) 3 Credit Hours

This is the capstone course for the Environmental Studies major. All students in this course learn about methods of investigation and presentation in the area of environmental studies. The course culminates in a major research project developed and written by each student.

Prerequisite: ENVS 22070 and ENVS 32091; and Environmental Studies major.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

ENVS 46092 INTERNSHIP IN ENVIRONMENTAL STUDIES (ELR) 3-6 Credit Hours

(Repeatable for credit) (Slashed with ENVS 56092) Work experience in local, regional and national agencies or companies designed to utilize and develop academic and professional skills.

Prerequisite: Sophomore standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9-18 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ENVS 49195 SPECIAL TOPICS IN ENVIRONMENTAL STUDIES 1-3 Credit Hours

(Slashed with ENVS 49195) Special topics in Environmental Studies.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3-9 lecture

Grade Mode: Standard Letter

ENVS 56092 INTERNSHIP IN ENVIRONMENTAL STUDIES 3-6 Credit Hours

(Slashed with ENVS 46092)(Repeatable for credit) Work experience in local, regional and national agencies or companies designed to utilize and develop academic and professional skills.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9-18 other

Grade Mode: Standard Letter

ENVS 59195 SPECIAL TOPICS IN ENVIRONMENTAL STUDIES 1-3**Credit Hours**

(Slashed with ENVS 49195) Special topics in Environmental Studies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3-9 lecture

Grade Mode: Standard Letter

Geography (GEOG)**GEOG 10160 INTRODUCTION TO GEOGRAPHY 3 Credit Hours**

A broad introduction to the study of geographic patterns on Earth.

Course describes and explains spatial patterns of human activity and environmental processes, as well as the interaction between these two realms. Topics include weather, climate, landforms, human-environment interactions, population, culture, economy and politics.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 16001 SOIL AND HORTICULTURAL MANAGEMENT 3 Credit Hours

Course provides students with an understanding of the relationship of soil, nutrients and fertilizers. Students understand how to properly plant trees, shrubs and flowers.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 17063 WORLD GEOGRAPHY (KSS) 3 Credit Hours

An overview of the differences and similarities within and between regions of the world. Students study the impacts of spatial processes as they operate at regional, global and local scales. Course emphasizes the effects of globalization on culture, economies, geopolitical relationships, population and the environment.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

GEOG 17064 GEOGRAPHY OF THE UNITED STATES AND CANADA (KSS) 3 Credit Hours

An overview of the differences and similarities within and between regions of the United States and Canada. Course focuses on social, economic, settlement and environmental patterns and processes.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, Transfer Module Social Sciences

GEOG 20195 SPECIAL TOPICS IN GEOGRAPHY 1-3 Credit Hours

(Repeatable for credit) Course explores emerging topics in geography not covered in other existing courses. Topics vary per course offering.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 21062 PHYSICAL GEOGRAPHY (KBS) 3 Credit Hours

Introduction to the study of the spatial characteristics of the Earth's physical environment, including how humans interact with it. Topics include weather and climate, vegetation, soils, ecosystems, landforms and land-formation processes, human impacts on Earth systems and human societal adaptations to the physical environment.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, TAG Social and Behavioral Sciences, Transfer Module Natural Sciences

GEOG 21063 PHYSICAL GEOGRAPHY LABORATORY (KBS) (KLAB) 1 Credit Hour

Course offers practical experience examining physical geographic processes, including the study and manipulation of map projections, Earth-sun relationships and experiments relating to the atmosphere, biosphere, lithosphere and hydrosphere. This laboratory course is taught in conjunction with the lecture and is designed to expand and reinforce concepts discussed in lecture through hands-on activities.

Corequisite: GEOG 21062.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, Transfer Module Natural Sciences, TAG Natural Science Lab

GEOG 22040 INTRODUCTION TO GLOBAL TOURISM 3 Credit Hours

(Cross-listed with RPTM 26060) Introduction to travel and tourism around the world. Students study tourism technologies and cultural and natural environments as attractions, benefits of travel, travel ethics and sustainable development.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 22061 HUMAN GEOGRAPHY (KSS) 3 Credit Hours

Introduction to the spatial patterns and processes of human activity on Earth. Course examines how humans understand and interact with the world. Students consider how cities are structured; economic and cultural differences; the interaction between politics and identity; and the environmental consequences of human activities.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

GEOG 31062 FUNDAMENTALS OF METEOROLOGY 3 Credit Hours

Analysis of weather elements emphasizing energy exchanges and controls and atmospheric circulation. Course highlights the methods of weather prediction and people's modification of weather.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 31064 CLIMATE AND THE ENVIRONMENT 3 Credit Hours

A study of the physical processes causing the distribution of world climates. Focus on local and urban climates, climatic change and societal impacts of climate.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 31070 POPULATION AND THE ENVIRONMENT 3 Credit Hours

Course examines the interrelations of population growth, resource depletion and the environment from a geographic perspective, including the principal themes of space and place.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 31080 GEOGRAPHY OF WINE 3 Credit Hours

Examines the physical environment of viticulture, including climate, soil and farm practices; the cultural tradition of wine making, consumption and trade; and regional production styles.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 31088 ENVIRONMENTAL GEOGRAPHY THROUGH FILM 3 Credit Hours

Cinema combines the art of storytelling and creation of landscape in such a way as to capture artifacts of the culture from which films emerge and as such, document in some way cultural, social and political history and experiences. In the course, films are used to examine environmental issues and processes in their social and cultural context.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 32023 FOOD AND PLACE (ELR) 3 Credit Hours

Course gives students a working knowledge in, and ability to understand and analyze, the intersections of food production, access and consumption. Course enables students to apply a critical geographic lens to compare the traditional food production system with alternatives at various scales, from local to global. Students focus on urban community gardening as one such alternative and personally interact with the Stark Campus' Flash's Food Garden as a case study in planning and preparing such a garden. Course combines lectures, discussions of scholarly publications, field trips, guest lectures and the hands-on experiential learning.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

GEOG 32080 POLITICS AND PLACE 3 Credit Hours

Spatial aspects of political behavior as manifested in boundary changes, the sizes of states, interstate relations and spatial organization.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 34070 ECONOMIC GEOGRAPHY 3 Credit Hours

Examines economic patterns at global, national, regional and local scales. Focus of course goes beyond space to place, with the recognition that these patterns are socially produced and, as such, change over time. Students examine economic models and theories from a spatial perspective, but with a strong focus on real-life outcomes, debates and challenges.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 36065 CITIES AND URBANIZATION 3 Credit Hours

This course examines what constitutes a city, how it has evolved over time under changing economic conditions, and how globalization, technology and transportation have fundamentally changed its internal structure. Students analyze how race, class, gender and ethnicity have deeply influenced urban processes and produced complex patterns of spatial and social inequality, including racial segregation and concentrated poverty. Special attention is paid to the causes and consequences of social diversity within the city and analyzing both the challenges and opportunities that arise. The curriculum also considers principles of urban sustainability, addressing how cities can balance economic growth, social equity and environmental protection for future generations.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 37010 GEOGRAPHY OF OHIO 3 Credit Hours

Study of Ohio as a distinctive region, its environment and the varied characteristics of its population, its historical geographic development and contemporary patterns and problems.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 37040 GEOGRAPHY OF AFRICA 3 Credit Hours

Course covers the complex geographical and cultural elements in Africa and demonstrates how the interaction of these elements has affected Africa's linkages to other continents, especially North America. Students discuss how this diversity has affected Africa's economic development and political evolution.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 37045 GEOGRAPHY OF THE MIDDLE EAST 3 Credit Hours

The Middle East is a world region where the interactions between human and physical geographies have shaped its history, culture, economies and population patterns. The course uses a thematic approach to understand these interactions and how they shape the modern Middle East and its relationship with the wider world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 37066 GEOGRAPHY OF EUROPE 3 Credit Hours

Europe is unique in terms of its historical cultural influence around the world, but over recent decades, Europe has undergone significant change and experienced many struggles. The attempts to integrate have led to significant debates about just what it means to be "European." This course covers Europe using a systematic approach. Students study the physical, political, religious, linguistic, social and economic environments within Europe. In addition, students explore the issues that tie Europeans to each other and to the outside world. Students sum up many of these aspects with case studies of nations or regions that typify the issues that face Europe today.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 37070 GEOGRAPHY OF EAST AND SOUTHEAST ASIA 3 Credit Hours

Analysis of the physical and cultural geography of East and Southeast Asia, extending from Japan and China to Burma and Indonesia.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 37072 GEOGRAPHY OF CHINA 3 Credit Hours

Provides an overview of China's physical environment, natural and human resources, social, economic and cultural characteristics, and its roles in today's global environment. Offers a comprehensive view of China's historical development and contemporary trends of growth and how it impacts the United States.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 37085 GEOGRAPHY OF LATIN AMERICA AND THE CARIBBEAN 3 Credit Hours

Latin America and the Caribbean is a traditional geographic region that has been uniquely shaped through multiple physical and cultural factors. Course takes a thematic approach to understanding the interplay of these factors and how they shape modern Latin America-Caribbean identity; the diversity of the environment and culture within the region; and how the region relates to the rest of the world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 37095 SPECIAL TOPICS IN REGIONAL GEOGRAPHY 3 Credit Hours

(Repeatable for a maximum of 3 times) Special topics course in a specific region of the world. Topics vary per course offering.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 39002 STATISTICAL METHODS IN GEOGRAPHY 3 Credit Hours

Explores probability theory, spatial statistics, estimation procedures, hypothesis testing, spatial sampling, methods of areal association and regression analysis. Geographic applications are emphasized.

Prerequisite: MATH 10041 or MATH 11009 or MATH 11010.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 39070 MAPPING, SPACE AND POWER 3 Credit Hours

Maps serve as visual representations of space. They encapsulate the intentions and perspectives of their creators and acquire new functionalities as people interpret and use them for various purposes. This course focuses on critical cartography as it analyzes the power and influence wielded by maps. Students explore maps, the process of map creation and map interpretation. They also delve into how mapping activities are inherently political and inseparable from power dynamics. The course examines the historical and cultural development of mapping with a focus on how maps perpetuate existing power structures through their creation, distribution and interpretation. At the same time, students also focus on the power of maps to disrupt and to promote social and environmental justice.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 40093 VARIABLE TITLE WORKSHOP IN GEOGRAPHY 1-6 Credit Hours

(Repeatable for credit) Workshop topics vary per course offering.

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

GEOG 40191 SEMINAR IN GEOGRAPHY (ELR) (WIC) 3 Credit Hours

(Repeatable for credit) Advanced study of the historical development of geography and of contemporary issues in the field. Emphasis on methods of geographic investigation and presentation of results.

Prerequisite: Geography major; and junior standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

GEOG 40192 PRACTICUM IN GEOGRAPHY (ELR) 1-3 Credit Hours

(Repeatable for credit) Practical experience in using or teaching geographic techniques and/or problem-solving. Faculty supervise the practicum.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

GEOG 40195 SPECIAL TOPICS IN GEOGRAPHY 1-3 Credit Hours

(Repeatable for credit)(Slashed with GEOG 50195 and GEOG 70195)

Topics vary according to research interest of the instructor.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 40199 CAPSTONE IN APPLIED GEOGRAPHY (ELR) (WIC) 3 Credit Hours

This is a capstone course in the geography major. The course consists of the development of a major geography research project of the student's choice (with instructor approval), including the development of a problem statement, methodology and final report, along with a presentation of the research project and its conclusions. The central component of the course is a capstone project that students complete by the end of the course. The capstone project allows the student to apply the skills and knowledge they gained through their experiences in the geography major. The project demonstrates their ability to analyze a real-world problem using GIS and come up with a solution based upon that analysis. This may consist of a project tied into an internship or job that contributes significantly to their future professional work. For others, this project provides a demonstration to potential employers of their GIS skills.

Prerequisite: Special approval.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

GEOG 40285 FIELD EXPERIENCE IN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 50285 and GEOG 70285) This course introduces students to field methods used in human and physical geography. Students spend most of the class hours outside investigating important local resources like the Cuyahoga Valley National Park, where they are introduced to geographic approaches to real world problems. Specific field methods may include: landscape interpretation; atmospheric monitoring; hydrologic sampling; terrestrial habitat analyses; human and nature interactions; food desert investigation; urban green space ratios; and traffic data collection.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 40392 PRACTICUM IN EMERGING GEOGRAPHIC TRENDS (ELR)

1-6 Credit Hours

(Repeatable for credit) Students undertake a practicum to examine newly emerging geographic topics and techniques.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

Attributes: Experiential Learning Requirement

GEOG 40492 STUDY AWAY IN GEOGRAPHY (ELR) 1-3 Credit Hours

(Repeatable for credit) (Slashed with GEOG 50492 and GEOG 70492)

Examination of geographic landscapes in the field.

Prerequisite: None.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

GEOG 40996 INDIVIDUAL INVESTIGATION IN GEOGRAPHY 1-3 Credit Hours

(Repeatable for credit) Students undertake an investigation or research on specific geographical problems.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

GEOG 41051 NATURAL DISASTERS AND SOCIETY 3 Credit Hours

(Slashed with GEOG 51051 and GEOG 71051) This course is a study of natural disasters, the physical processes responsible for hazards, and their effects on the physical and social environment. It focuses on the science of natural hazards and how we can use our knowledge of these natural events and processes to reduce the occurrence or mitigate the effects of natural disasters. Natural disasters include earthquakes, volcanoes, tsunamis, landslides, thunderstorms and tornadoes, heatwaves and droughts, floods, coastal hazards, and wildfires. This course is taught through lecture and analysis of numerous case studies of global natural disasters.

Prerequisite: Junior standing or above.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 41065 DATA ANALYSIS FOR CLIMATE AND THE ENVIRONMENT 3 Credit Hours

(Slashed with GEOG 51065 and GEOG 71065) Course aims to provide a full appreciation for the range of applicability of climate data to real-world problems. There are three overarching goals of the course: (1) to provide a broad overview of what weather and climate information is out there and how people synthesize weather and climate information for use in applied work; (2) to enable a thorough appreciation for the breadth of disciplines in which applied climatology plays a role; and (3) to provide real-world experience of working through an applied climatological problem, via a final project.

Prerequisite: GEOG 31062 or GEOG 31064.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 41066 GLOBAL CLIMATE CHANGE 3 Credit Hours

(Slashed with GEOG 51066 and GEOG 71066) Examination of the evidence and causes of climate change and how these data are assessed. Students discuss past, present and future impacts of climate change and variability, in addition to policy implications.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 41073 CONSERVATION OF NATURAL RESOURCES 3 Credit Hours

(Slashed with GEOG 51073 and GEOG 71073) Evaluation of past and current problems associated with the management of natural resources and the environments associated with their utilization.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 41074 RESOURCE GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 51074 and GEOG 71074) Course explores the dynamic world of resource geography, where students examine how natural resources shape economies, societies and environments. From energy and minerals to water and agriculture, this course offers an exciting, in-depth look at the challenges and opportunities in managing our planet's most valuable assets.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 41077 WATER AND SOCIETY 3 Credit Hours

(Slashed with GEOG 51077 and GEOG 71077) This course examines the relationships between water and the world's population with an emphasis on the developing world (Africa, Asia, Middle East, and Latin America). Students will analyze how water impacts humans and how humans impact water. The course begins by introducing the hydro-social cycle and network theories to provide a foundation and framework to understand the four primary course themes: water policy and governance (including privatization, public-private partnerships, and the various United Nations' global water initiatives), water as power (including social power and how governments politicize water), flooding and droughts (including vulnerabilities, adaptations, and mitigations), and inequalities (including on gender, quality, access, and affordability). The course concludes by revisiting these themes and applying ideas of water justice and sustainability. The course is primarily discussion based with limited lectures to ensure students understand key concepts.

Prerequisite: Junior standing or above.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 41082 GEOGRAPHY OF SOILS 3 Credit Hours

(Slashed with GEOG 51082 and GEOG 71082) An edaphological approach to soils, including morphology, formation, classification, geographical distribution and utilization. Students will be required to undertake field work.

Prerequisite: ESCI 11040 or GEOG 21062.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 41195 SPECIAL TOPICS IN ENVIRONMENTAL GEOGRAPHY 1-3 Credit Hours

(Repeatable for a maximum 10 times)(Slashed with GEOG 51195 and GEOG 71195) Topics vary per course offering.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 41800 GLOBAL ENVIRONMENTAL ISSUES 3 Credit Hours

(Slashed with GEOG 51800 and GEOG 71800) Course examines environmental belief systems and explores various perceptions of the Earth's environment and its opportunities, constraints and risks. The goals of the course is twofold: (1) develop a framework to allow students to explore both their own relationship to the environment and to understand the sociocultural constructs that have informed their personal environmental beliefs; and (2) apply this knowledge to critically assess various stakeholder perspectives of specific environmental issues.

Prerequisite: None.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 42040 TOURISM DEVELOPMENT AND RECREATIONAL TRAVEL 3 Credit Hours

(Cross-listed with RPTM 46000, HTM 56000) Investigation of travel and tourism development using an interdisciplinary social science approach.

Prerequisite: RPTM 36060.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 42052 HEALTH GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 52052 and GEOG 72052) This course examines health/medical geography, a subdiscipline of both public health and geography, that focuses on geographic aspects of health and disease. The field deals with human-environment interactions and their influence on human health. This course offers historical context to geography and health and covers three major approaches to health/medical geographic scholarship: ecological approaches, which systematically analyzes relationships between people and their environments; social approaches, including political economy and socio-behavioral approaches; and spatial approaches.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 42053 GEOGRAPHIES OF MEMORY AND HERITAGE 3 Credit Hours

(Slashed with GEOG 52053 and GEOG 72053) Course gives students a working knowledge in, and ability to understand and analyze, the intersection of memory and landscape as a tangible re-presentation of the human past, oftentimes used as a tangible expression of cultural or political power. Students focus on memorialization, preservation and tourism concepts and themes.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 42064 SETTLING THE NORTH AMERICAN ENVIRONMENT 3 Credit Hours

(Slashed with GEOG 52064 and GEOG 72064) Course surveys the environmental changes of the North American continent brought about by Indigenous, European Colonial and American land use practices, from pre-Columbian times to present. Students engage with foundational historical narratives, evidence and methods for understanding these geographic pasts. Course is a combination of lectures and discussions of readings and in-class activities.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 42070 SEMINAR IN ETHNIC, LIFESTYLE AND NATIONAL COMMUNITIES 3 Credit Hours

(Slashed with GEOG 52070 and GEOG 72070) Covers the geographies of ethnic identity and nationalism, national identity and territory, borderlands and diasporas, national separatism and the variety of ways in which cultural difference asserts itself.

Prerequisite: Junior standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 42195 SPECIAL TOPICS IN SOCIAL GEOGRAPHY 1-3 Credit Hours

(Repeatable for maximum 10 times)(Slashed with GEOG 52195 and 72195) Topics vary per course offering.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 43070 WICKED PROBLEMS: TACKLING GLOBAL ISSUES IN THE 21ST CENTURY 3 Credit Hours

(Cross-listed with POL 43001) This course provides an overview and analysis of the United Nations Sustainable Development Goals (SDG), as well as strategies that can be used for tackling them. The SDGs address the most serious problems faced by humankind today. These include poverty, hunger, inequality, climate change, economic development and environmental sustainability. A key characteristic of the SDGs is that they are known as “wicked problems.” Wicked problems are complex issues that resist conventional approaches to problem solving, and for which existing solutions often create unintended consequences that only make the original problem worse. Emphasis is placed on problems of collective action, evidence-based public policies and interdisciplinary approaches to addressing global issues.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 44010 GEOGRAPHIES OF GLOBAL DEVELOPMENT 3 Credit Hours

(Slashed with GEOG 54010 and GEOG 74010) This course examines the political economy of development. More narrowly, we examine the historical geography of agricultural transformations and capitalist development. We draw from case studies from different regions to interpret differential patterns of development and political-economic change. Emphasis is placed on the creation, structure, and operation of the capitalist agro-food system and its impact on small-scale farmers and landless rural workers.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 45085 URBAN TRANSPORTATION 3 Credit Hours

(Slashed with GEOG 55085 and GEOG 75085) Transportation may be the single most important force shaping cities. Historically, cities have depended on their access to ports, canals, railroads and highways. Today, transportation networks, the use of public transportation, provisions for bicycles and pedestrians and transportation architecture continue to define how a city looks, feels and acts.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 46060 FOOD SECURITY AND SUSTAINABILITY 3 Credit Hours

(Slashed with GEOG 56060 and GEOG 76060) This course explores the concept of food security from the standpoint of agrarian change, food regimes, agroecology, and development. In the process, we examine the various frameworks that have grounded academic and popular understandings of famine and food security, including Malthusian, environmental determinism, Food Availability Decline (FAD), entitlements, and historical materialism.

Prerequisite: Junior standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 46070 URBAN AND REGIONAL PLANNING 3 Credit Hours

(Slashed with GEOG 56070 and GEOG 76070) Examines how cities develop and what “people” – through government, quasi-public institutions and private interests – can do to modify urban growth, the distribution of people and places and urban design.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 46080 URBAN SUSTAINABILITY 3 Credit Hours

(Slashed with GEOG 56080 and GEOG 76080) Provides an introduction to interdisciplinary perspectives on urban sustainability, focusing on environmental challenges caused by urbanization and the innovative ways urban dwellers seek to address those challenges. Course provides background on relevant disciplinary perspectives and their application to environmental challenge domains.

Prerequisite: None.

Schedule Type: Lecture, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 46081 SEMINAR IN URBAN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 56081 and GEOG 76081) Through class discussions and readings, students gain a better understanding of the various issues, projects and paradigms that make up the field of urban geography.

Prerequisite: Junior standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 46092 INTERNSHIP IN GEOGRAPHY AND PLANNING (ELR) 3-6 Credit Hours

(Repeatable for credit) Pre-professional work experience in local, regional and environmental planning agencies and in business designed to utilize and develop academic skills. Registration into the course is competitive based on student’s skills and interests and on number of positions available.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 3-6 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

GEOG 49070 GEOGRAPHIC INFORMATION SCIENCE 4 Credit Hours

(Slashed with GEOG 59070 and GEOG 79070) Introduction to theories and methods for geographic data processing, including data capture and input data storage and management and data analysis and displays. Emphasis is on laboratory exercises using GIS software packages for real-world applications.

Prerequisite: None.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

GEOG 49072 GEOGRAPHIC INFORMATION SCIENCE AND HEALTH 3 Credit Hours

(Slashed with GEOG 59072 and GEOG 79072) Geographic theory and methods serve as the connection among disparate disciplines focused on how and why “health” varies between regions, cities and neighborhoods. Students examine how geospatial technologies, especially GIS, have become an important health analysis tool.

Prerequisite: GEOG 49070.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 49073 ENVIRONMENTAL DATA ANALYSIS IN R 3 Credit Hours

(Slashed with GEOG 59073 and GEOG 79073) The course aims to teach students basic concepts, skills, and tools for working with data in R. R is an open-source (free) programming language for statistical computing and graphics that statisticians widely use, scientists, data miners, and geographers. The number of R users grows exponentially each year, contributing to a massive online community and countless free tutorials. This is a hands-on course designed for students with no programming experience. However, this course does not teach statistics: understanding of basic statistics and common statistical tests is assumed and prior coursework in statistics is encouraged. With the knowledge gained in this course, students will be ready to undertake their own data analysis in R and increase their efficiency through reproducible workflows.

Prerequisite: BSCI 40224 or GEOG 39002 or MATH 10041.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 49075 GEOGRAPHIC INFORMATION SCIENCE: APPLICATIONS FOR SOCIAL PROBLEMS 3 Credit Hours

(Slashed with GEOG 59075 and GEOG 79075) Course provides a survey of geographic information system (GIS) and related mapping applications that are used to understand and solve a variety of social problems (e.g., crime, poor health and educational outcomes, exposure to environmental hazards). Through case studies, students learn spatial data acquisition, basic spatial analysis and forms of map-based visual communication to stakeholders and the general public.

Prerequisite: GEOG 49070.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 49076 SPATIAL PROGRAMMING 3 Credit Hours

(Slashed with GEOG 59076 and GEOG 79076) Examination of the design, development and use of geographic information technologies with computer programming to model, process and visualize geographic phenomena.

Prerequisite: GEOG 49070.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 49078 GEOGRAPHIC INFORMATION SCIENCE AND ENVIRONMENTAL HAZARDS 3 Credit Hours

(Slashed with GEOG 59078 and GEOG 79078) The study and management of natural hazards are inherently reliant on both physical and human processes and spatial patterns. Given the many variables involved and the variety of scales at which they operate, use of geographic information system (GIS) has become standard practice in research on hazards and in their management by government agencies at all levels. Students are exposed to a wide array of spatial data that is used in these activities, as well as standard mapping and spatial analysis procedures and forms of data dissemination.

Prerequisite: GEOG 49070.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 49080 ADVANCED GEOGRAPHIC INFORMATION SCIENCE 3 Credit Hours

(Slashed with GEOG 59080 and GEOG 79080) Provides both an overview of geographic information science (GIS) data structures, analytical functions and usage and modeling approaches. Students learn how to manage GIS data in different formats or projections; select GIS analytical tools for solving different problems; and model changes of geographical phenomena as represented by GIS data.

Prerequisite: GEOG 49070.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 49085 WEB AND MOBILE GEOGRAPHIC INFORMATION SCIENCE 3 Credit Hours

(Slashed with GEOG 59085 and GEOG 79085) Explores how web and mobile phones present opportunities and challenges to the field of geographic information science (GIS). This includes the examination of the use, design and development of cyberinfrastructure-enabled GIS emphasizing web- and mobile-based interfaces and technologies. Students are recommended to have GIS experience to enroll in the course.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 49098 RESEARCH IN GEOGRAPHIC INFORMATION TECHNOLOGY (ELR) 1-3 Credit Hours

(Repeatable for credit) Students undertake individual research on a topic in geographic information technology.

Prerequisite: Special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

GEOG 49162 CARTOGRAPHY 3 Credit Hours

(Slashed with GEOG 49162 and GEOG 79162) Introduces map design principles including base maps, typography, generalization, symbols, color scheme, and classification. Builds on students' experiences with GIS to focus on applying map design principles using geospatial and graphic design software to produce effective print and static web maps.

Prerequisite: GEOG 49070.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 49195 SPECIAL TOPICS IN GEOGRAPHIC INFORMATION SCIENCE 1-3 Credit Hours

(Repeatable for maximum 10 times)(Slashed with GEOG 59195 and GEOG 79195) Topics vary per course offering.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 49198 RESEARCH IN CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS (ELR) 1-3 Credit Hours

(Repeatable for credit) Students undertake individual research on a topic in cartography or geographic information science (GIS) under the direction of a faculty member.

Prerequisite: Special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

GEOG 49230 REMOTE SENSING 3 Credit Hours

(Cross-listed with ESCI 42030)(Slashed with ESCI 52030, ESCI 72030, GEOG 59230, GEOG 79230) Computer analysis of multispectral satellite datasets. Applications in terrestrial earth science are emphasized.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 50093 VARIABLE TITLE WORKSHOP IN GEOGRAPHY 1-5 Credit Hours

(Repeatable for credit) Variable title workshop in geography.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-5 other

Grade Mode: Satisfactory/Unsatisfactory-IP

GEOG 50195 SPECIAL TOPICS IN GEOGRAPHY 1-3 Credit Hours

(Repeatable for credit)(Slashed with GEOG 40195 and GEOG 70195) Topics vary according to research interest of the instructor.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 50285 FIELD EXPERIENCE IN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 40285 and GEOG 70285) This course introduces students to field methods used in human and physical geography. Students spend most of the class hours outside investigating important local resources like the Cuyahoga Valley National Park, where they are introduced to geographic approaches to real world problems. Specific field methods may include: landscape interpretation; atmospheric monitoring; hydrologic sampling; terrestrial habitat analyses; human and nature interactions; food desert investigation; urban green space ratios; and traffic data collection.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 50392 PRACTICUM IN EMERGING GEOGRAPHIC TRENDS 1-6 Credit Hours

(Repeatable for credit) Students undertake a practicum examining newly emerging geographic topics and techniques.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

GEOG 50492 STUDY AWAY IN GEOGRAPHY 1-3 Credit Hours

(Repeatable for maximum 6 attempts)(Slashed with GEOG 40492 and GEOG 70492) Examination of geographic landscapes in the field.

Prerequisite: Graduate standing.

Schedule Type: Field Experience

Contact Hours: 3-9 other

Grade Mode: Standard Letter

GEOG 51051 NATURAL DISASTERS AND SOCIETY 3 Credit Hours

(Slashed with GEOG 41051 and GEOG 71051) Study of natural disasters; the physical causes of the hazards associated with the disasters; their effects on humans and societies; spatial and temporal distributions; and strategies to reduce the occurrences of disasters. Natural disasters include hurricanes, tornadoes, floods, landslides, heat waves, wildfire, blizzards, earthquakes, tsunami and volcanoes. Mitigation for disasters and responses to disasters are studied across economically developing nations and developed nations. Students learn through the analysis of numerous case studies of natural disasters.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 51065 DATA ANALYSIS FOR CLIMATE AND THE ENVIRONMENT 3 Credit Hours

(Slashed with GEOG 41065 and GEOG 71065) Course aims to provide a full appreciation for the range of applicability of climate data to real-world problems. There are three overarching goals of the course: (1) to provide a broad overview of what weather and climate information is out there and how people synthesize weather and climate information for use in applied work; (2) to enable a thorough appreciation for the breadth of disciplines in which applied climatology plays a role; and (3) to provide real-world experience of working through an applied climatological problem, via a final project.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 51066 GLOBAL CLIMATE CHANGE 3 Credit Hours

(Slashed with GEOG 41066 and GEOG 71066) Examination of the evidence and causes of climate change and how these data are assessed. Students discuss past, present and future impacts of climate change and variability, in addition to policy implications.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 51073 CONSERVATION OF OUR NATURAL RESOURCES 3 Credit Hours

(Slashed with GEOG 41073 and GEOG 71073) Evaluation of past and current problems associated with the management of natural resources and the environments associated with their utilization.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 51074 RESOURCE GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 41074 and GEOG 71074) Course explores the dynamic world of resource geography, where students examine how natural resources shape economies, societies and environments. From energy and minerals to water and agriculture, this course offers an exciting, in-depth look at the challenges and opportunities in managing our planet's most valuable assets.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 51077 WATER AND SOCIETY 3 Credit Hours

(Slashed with GEOG 41077 and GEOG 71077) This course examines the relationships between water and the world's population with an emphasis on the developing world (Africa, Asia, Middle East, and Latin America). Students will analyze how water impacts humans and how humans impact water. The course begins by introducing the hydro-social cycle and network theories to provide a foundation and framework to understand the four primary course themes: water policy and governance (including privatization, public-private partnerships, and the various United Nations' global water initiatives), water as power (including social power and how governments politicize water), flooding and droughts (including vulnerabilities, adaptations, and mitigations), and inequalities (including on gender, quality, access, and affordability). The course concludes by revisiting these themes and applying ideas of water justice and sustainability. The course is primarily discussion-based with limited lectures to ensure students understand key concepts.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 51082 GEOGRAPHY OF SOILS 3 Credit Hours

(Slashed with GEOG 41082 and GEOG 71082) An edaphological approach to soils, including morphology, formation, classification, geographical distribution and utilization. Students will be required to undertake field work.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 51195 SPECIAL TOPICS IN ENVIRONMENTAL GEOGRAPHY 1-3 Credit Hours

(Repeatable for a maximum 10 times)(Slashed with GEOG 41195 and GEOG 71195) Topics vary per course offering.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 51800 GLOBAL ENVIRONMENTAL ISSUES 3 Credit Hours

(Slashed with GEOG 41800 and GEOG 71800) Course examines environmental belief systems and explores various perceptions of the Earth's environment and its opportunities, constraints and risks. The goals of the course is twofold: (1) develop a framework to allow students to explore both their own relationship to the environment and to understand the sociocultural constructs that have informed their personal environmental beliefs; and (2) apply this knowledge to critically assess various stakeholder perspectives of specific environmental issues.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 52052 HEALTH GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 42052 and GEOG 72052) This course examines health/medical geography, a subdiscipline of both public health and geography, that focuses on geographic aspects of health and disease. The field deals with human-environment interactions and their influence on human health. This course offers historical context to geography and health and covers three major approaches to health/medical geographic scholarship: ecological approaches, which systematically analyzes relationships between people and their environments; social approaches, including political economy and socio-behavioral approaches; and spatial approaches.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 52053 GEOGRAPHIES OF MEMORY AND HERITAGE 3 Credit Hours

(Slashed with GEOG 42053 and GEOG 72053) Course gives students a working knowledge in, and ability to understand and analyze, the intersection of memory and landscape as a tangible re-presentation of the human past, oftentimes used as a tangible expression of cultural or political power. Students focus on memorialization, preservation and tourism concepts and themes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 52064 SETTLING THE NORTH AMERICAN ENVIRONMENT 3 Credit Hours

(Slashed with GEOG 42064 and GEOG 72064) Course surveys the environmental changes of the North American continent brought about by Indigenous, European Colonial and American land use practices, from pre-Columbian times to present. Students engage with foundational historical narratives, evidence and methods for understanding these geographic pasts. Course is a combination of lectures and discussions of readings and in-class activities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 52070 SEMINAR IN ETHNIC, LIFESTYLE AND NATIONAL COMMUNITIES 3 Credit Hours

(Slashed with GEOG 42070 and GEOG 72070) Covers the geographies of ethnic identity and nationalism, national identity and territory, borderlands and diasporas, national separatism and the variety of ways in which cultural difference asserts itself.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 52195 SPECIAL TOPICS IN SOCIAL GEOGRAPHY 1-3 Credit Hours

(Repeatable for a maximum 10 times)(Slashed with GEOG 42195 and GEOG 72195) Topics vary per course offering.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 54010 GEOGRAPHIES OF GLOBAL DEVELOPMENT 3 Credit Hours

(Slashed with GEOG 44010 and GEOG 74010) This course examines the political economy of development. More narrowly, we examine the historical geography of agricultural transformations and capitalist development. We draw from case studies from different regions to interpret differential patterns of development and political-economic change. Emphasis is placed on the creation, structure, and operation of the capitalist agro-food system and its impact on small-scale farmers and landless rural workers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 55085 URBAN TRANSPORTATION 3 Credit Hours

(Slashed with GEOG 45085 and GEOG 75085) Transportation may be the single most important force shaping cities. Historically, cities have depended on their access to ports, canals, railroads and highways. Today, transportation networks, the use of public transportation, provisions for bicycles and pedestrians and transportation architecture continue to define how a city looks, feels and acts.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 56060 FOOD SECURITY AND SUSTAINABILITY 3 Credit Hours

(Slashed with GEOG 46060 and GEOG 76060) This course explores the concept of food security from the standpoint of agrarian change, food regimes, agroecology, and development. In the process, we examine the various frameworks that have grounded academic and popular understandings of famine and food security, including Malthusian, environmental determinism, Food Availability Decline (FAD), entitlements, and historical materialism.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 56070 URBAN AND REGIONAL PLANNING 3 Credit Hours

(Slashed with GEOG 46070 and GEOG 76070) Examines how cities develop and what "people" – through government, quasi-public institutions and private interests – can do to modify urban growth, the distribution of people and places and urban design.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 56080 URBAN SUSTAINABILITY 3 Credit Hours

(Slashed with GEOG 46080 and GEOG 76080) Provides an introduction to interdisciplinary perspectives on urban sustainability, focusing on environmental challenges caused by urbanization and the innovative ways urban dwellers seek to address those challenges. Course provides background on relevant disciplinary perspectives and their application to environmental challenge domains.

Prerequisite: Graduate standing.

Schedule Type: Lecture, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 56081 SEMINAR IN URBAN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 46081 and GEOG 76081) Through class discussions and readings, students gain a better understanding of the various issues, projects and paradigms that make up the field of urban geography.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 56092 INTERNSHIP IN GEOGRAPHY AND PLANNING 3-6 Credit Hours

(Repeatable for credit) Pre-professional work experience in local, regional and environmental planning agencies and private business designed to utilize and develop academic skills.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-6 other

Grade Mode: Standard Letter

GEOG 59070 GEOGRAPHIC INFORMATION SCIENCE 4 Credit Hours

(Slashed with GEOG 49070 and GEOG 79070) Introduction to theories and methods for geographic data processing, including data capture and input, data storage and management and data analysis and displays. Emphasis is on laboratory exercises using GIS software packages for real-world applications.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

GEOG 59071 FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE I 3 Credit Hours

Introduction to fundamental concepts and methods for geographic data analysis, including data capture and input, data storage and management, and data analysis and display. Emphasis is on applications of GIS software to real world issues.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59072 GEOGRAPHIC INFORMATION SCIENCE AND HEALTH 3 Credit Hours

(Slashed with GEOG 49072 and GEOG 79072) Geographic theory and methods serve as the connection among disparate disciplines focused on how and why “health” varies between regions, cities and neighborhoods. Students examine how geospatial technologies, especially GIS, have become an important health analysis tool.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59073 ENVIRONMENTAL DATA ANALYSIS IN R 3 Credit Hours

(Slashed with GEOG 49073 and GEOG 79073) The course aims to teach students basic concepts, skills, and tools for working with data in R. R is an open-source (free!) programming language for statistical computing and graphics that statisticians widely use, scientists, data miners, and geographers. The number of R users grows exponentially each year, contributing to a massive online community and countless free tutorials. This is a hands-on course designed for students with no programming experience. However, this course does not teach statistics: understanding of basic statistics and common statistical tests is assumed and prior coursework in statistics is encouraged. With the knowledge gained in this course, students will be ready to undertake their own data analysis in R and increase their efficiency through reproducible workflows.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59075 GEOGRAPHIC INFORMATION SCIENCE: APPLICATIONS FOR SOCIAL PROBLEMS 3 Credit Hours

(Slashed with GEOG 49075 and GEOG 79075) Course provides a survey of geographic information system (GIS) and related mapping applications that are used to understand and solve a variety of social problems (e.g., crime, poor health and educational outcomes, exposure to environmental hazards). Through case studies, students learn spatial data acquisition, basic spatial analysis and forms of map-based visual communication to stakeholders and the general public.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59076 SPATIAL PROGRAMMING 3 Credit Hours

(Slashed with GEOG 49076 and GEOG 79076) Examination of the design, development and use of geographic information technologies with computer programming to model, process and visualize geographic phenomena.

Prerequisite: GEOG 59070; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59078 GEOGRAPHIC INFORMATION SCIENCE AND ENVIRONMENTAL HAZARDS 3 Credit Hours

(Slashed with GEOG 49078 and GEOG 79078) The study and management of natural hazards are inherently reliant on both physical and human processes and spatial patterns. Given the many variables involved and the variety of scales at which they operate, use of geographic information system (GIS) has become standard practice in research on hazards and in their management by government agencies at all levels. Students are exposed to a wide array of spatial data that is used in these activities, as well as standard mapping and spatial analysis procedures and forms of data dissemination.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59080 ADVANCED GEOGRAPHIC INFORMATION SCIENCE 3 Credit Hours

(Slashed with GEOG 49080 and GEOG 79080) Provides both an overview of geographic information science (GIS) data structures, analytical functions and usage and modeling approaches. Students learn how to manage GIS data in different formats or projections; select GIS analytical tools for solving different problems; and model changes of geographical phenomena as represented by GIS data.

Prerequisite: GEOG 59070; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59081 FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE II 3 Credit Hours

Advanced theories and techniques for handling and analyzing geographic data, analytical functions and modelling approaches. Topics covered include: two- and three-dimension processing of geographic information, detection of geographic patterns through spatial analysis and spatial statistics, network analysis, modeling of geographic processes and an overview of GIS programming tools.

Prerequisite: GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59085 WEB AND MOBILE GEOGRAPHIC INFORMATION SCIENCE 3 Credit Hours

(Slashed with GEOG 49085 and GEOG 79085) Explores how web and mobile phones present opportunities and challenges to the field of geographic information science (GIS). This includes the examination of the use, design and development of cyberinfrastructure-enabled GIS emphasizing web- and mobile-based interfaces and technologies. Students are recommended to have GIS experience to enroll in the course.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59162 CARTOGRAPHY 3 Credit Hours

(Slashed with GEOG 49162 and GEOG 79162) Introduces map design principles including base maps, typography, generalization, symbols, color scheme, and classification. Builds on students' experiences with GIS to focus on applying map design principles using geospatial and graphic design software to produce effective print and static web maps.

Prerequisite: GEOG 49070 or GEOG 59070; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 59195 SPECIAL TOPICS IN GEOGRAPHIC INFORMATION SCIENCE 1-3 Credit Hours

(Repeatable for maximum 10 times)(Slashed with GEOG 49195 and GEOG 79195). Topics vary per course offering.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 59230 REMOTE SENSING 3 Credit Hours

(Cross-listed with ESCI 52030)(Slashed with ESCI 42030, ESCI 72030, GEOG 49230, GEOG 79230) Computer analysis of multispectral satellite datasets. Applications in terrestrial earth science are emphasized.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 60191 SEMINAR IN TOPICAL GEOGRAPHY 3 Credit Hours

(Repeatable for credit)(Slashed with GEOG 70191) Seminar in one of the major topical fields in geography. Topics vary per course offering.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 60199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

GEOG 60299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: GEOG 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

GEOG 60800 SEMINAR IN THE DEVELOPMENT OF GEOGRAPHIC THOUGHT 3 Credit Hours

(Slashed with GEOG 70800) Development of geographic knowledge and concepts with emphasis on recent development. Critical analysis of writings of representative geographers and scientists in related fields.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 60900 QUALITATIVE RESEARCH METHODS IN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 70900) Introduces qualitative methods and research applications, along with methodological considerations of these approaches. Students consider the epistemology of qualitative research and learn the mechanics of conducting this research in the field. In class, these methods are put into practice and the results are put into writing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 60996 RESEARCH IN GEOGRAPHY 1-3 Credit Hours

(Repeatable for credit) Students undertake individual research problems in geography.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

GEOG 60998 RESEARCH I 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for master's level graduate students. Credits earned may be applied toward meeting degree requirements if the department approves.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Standard Letter

GEOG 61998 RESEARCH II 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for master's level graduate students. Credits earned may be applied toward meeting degree requirements if the department approves.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory

GEOG 67091 SEMINAR IN REGIONAL GEOGRAPHY 3 Credit Hours

(Repeatable for credit)(Slashed with GEOG 77091) Variable content seminar on one of the major regions of world.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 69004 QUANTITATIVE METHODS IN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 79004) Explores the methods and applications of some of the most common statistics found in geographic work. It explores probability theory, spatial statistics, estimation procedures, hypothesis testing, spatial sampling, methods of areal association, correlation and regression analysis, and principal components analysis. Theory and execution of these methods are equally emphasized, and applications to geographic problems are examined within each theme.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69007 SPATIOTEMPORAL ANALYTICS 3 Credit Hours

Course equips students with essential spatiotemporal thinking and technical skills in mapping, analyzing, visualizing, communicating and simulating the spatiotemporal data. The software ArcGIS and free packages in R and Netlogo are used in the instruction.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69073 GEOGRAPHIC INFORMATION SCIENCE: GLOBAL HEALTH 3 Credit Hours

Emerging and re-emerging diseases in non-developed countries pose one of the greatest health challenges of current times. Geospatial approaches often provide one of the only information sources in data poor and challenging environments. The course exposes students to these health issues and disease environments through varied case studies, while simultaneously highlighting the geospatial methods and approaches used to understand and combat disease.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69074 GEOGRAPHIC INFORMATION SCIENCE: SPATIAL ANALYSIS FOR HEALTH GEOGRAPHY 3 Credit Hours

Spatial analysis is used to verify patterns and associations in health data maps. These results can then be used to further hone the scientific question, or help design an intervention strategy. Course introduces students to spatial analytical approaches used by health researchers and practitioners in the exploratory investigation of health data. Students are exposed to new mobile technologies that can be used to enrich more traditional spatial data sources.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69079 ENVIRONMENTAL GEOGRAPHIC INFORMATION SCIENCE 3 Credit Hours

GPS and environmental spatial data are commonly used in a variety of management and assessment plans in fields related to environmental science to achieve effective decision making and environmental resource management. Course focuses on techniques used to process, manage, visualize and analyze environmental data using GIS. Students learn how to collect and process GPS and online sources of geospatial data and how to employ techniques such as suitability modeling, measuring distributions and calculating landscape metrics.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69082 CYBERGIS 3 Credit Hours

(Slashed with GEOG 79082) Explores cyberinfrastructure-enabled geographic information systems (i.e. cyberGIS) and related technologies including a broad introduction to the use, design, and development of cyberinfrastructure, spatial data infrastructures, geographic information services, and web-enabled mapping technologies. Situates CyberGIS in the broader context of geographic information science focusing on the how synthesizing computational thinking and spatial thinking influence methodological approaches.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69083 GEODATABASES 3 Credit Hours

Course explores the essential concepts and skills needed to efficiently create a geodatabase, add data to it and realistically model the real-world spatial relationships inherent to the data. Students learn about geodatabase features that help ensure data integrity over time and about storing and managing geographic data.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69164 CARTOGRAPHIC DESIGN 3 Credit Hours

Introduces students to the principles of map design and the art of map construction. Students will become familiar with the cartographic process, especially as they apply basic mapping concepts such as scale, projections, typography, generalization, symbols, color scheme, and classification to the design and production of thematic maps. Students will also learn how to describe and manipulate spatial data and how to select an appropriate map type for a given task and data set. This course builds on students' experiences with GIS to focus on the design needed to disseminate information beyond users of the software and produce effective print and web maps. Class exercises will provide hands-on experience in using GIS and graphic software packages. Principles and experiences learned in class will equip students with the fundamental skills necessary to effectively communicate graphic information through maps.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 59071; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69231 ENVIRONMENTAL REMOTE SENSING 3 Credit Hours

Introduction to the basic principles of environmental remote sensing, including the electromagnetic spectrum, spectral properties of Earth objects, aerial photograph analysis and interpretation and satellite image analysis and interpretation. Special focus will be on environmental applications, especially as they pertain to understanding vegetation, water, and land use mapping and impacts.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 69392 PRACTICUM IN GEOGRAPHIC INFORMATION SCIENCE 6 Credit Hours

Culminating experience for students in the MGISc program. It will be taken in place of two Carousel Specialist courses on the schedule for the student's final semester. It is designed to provide practical experience in the application of MGISc course content in real-world professional settings. Students will select a professional project in consultation with their employer and program faculty and then will design, implement, and report on their activities in a culminating professional paper.

Prerequisite: GEOG 59070 or GEOG 59071 and GEOG 59080 or GEOG 59081 and GEOG 69164; and two additional graduate-level GEOG courses; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 18 other

Grade Mode: Standard Letter-IP

GEOG 69701 RESEARCH AND PRESENTATION OF GEOGRAPHIC DATA 3 Credit Hours

(Slashed with GEOG 89701) Critical discussion of the techniques of geographic research and the preparation and presentation of thesis and dissertation proposals.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 70093 VARIABLE TITLE WORKSHOP IN GEOGRAPHY 1-5 Credit Hours

(Repeatable for credit) Variable title workshop in geography.

Prerequisite: Doctoral standing.

Schedule Type: Workshop

Contact Hours: 1-5 other

Grade Mode: Satisfactory/Unsatisfactory-IP

GEOG 70191 SEMINAR IN TOPICAL GEOGRAPHY 3 Credit Hours

(Repeatable for credit) (Slashed with GEOG 60191) Seminar in one of the major topical fields in geography. Topics vary per course offering.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 70195 SPECIAL TOPICS IN GEOGRAPHY 1-3 Credit Hours

(Repeatable for credit) (Slashed with GEOG 40195 and GEOG 50195)

Topics vary according to research interest of the instructor.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 70285 FIELD EXPERIENCE IN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 40285 and GEOG 50285) This course introduces students to field methods used in human and physical geography. Students spend most of the class hours outside investigating important local resources like the Cuyahoga Valley National Park, where they are introduced to geographic approaches to real world problems. Specific field methods may include: landscape interpretation; atmospheric monitoring; hydrologic sampling; terrestrial habitat analyses; human and nature interactions; food desert investigation; urban green space ratios; and traffic data collection.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 70392 PRACTICUM IN EMERGING GEOGRAPHIC TRENDS 1-6 Credit Hours

(Repeatable for credit) Students undertake a practicum in examining newly emerging geographic topics and techniques.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

GEOG 70492 STUDY AWAY IN GEOGRAPHY 1-3 Credit Hours

(Repeatable for maximum 6 attempts) (Slashed with GEOG 40492 and GEOG 50492) Examination of geographic landscapes in the field.

Prerequisite: Doctoral standing.

Schedule Type: Field Experience

Contact Hours: 3-9 other

Grade Mode: Standard Letter

GEOG 70800 SEMINAR IN THE DEVELOPMENT OF GEOGRAPHIC THOUGHT 3 Credit Hours

(Slashed with GEOG 60800) Development of geographic knowledge and concepts with emphasis on recent development. Critical analysis of writings of representative geographers and scientists in related fields.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 70900 QUALITATIVE RESEARCH METHODS IN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 60900) Introduces qualitative methods and research applications, along with methodological considerations of these approaches. Students consider the epistemology of qualitative research and learn the mechanics of conducting this research in the field. In class, these methods are put into practice and the results are put into writing.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71051 NATURAL DISASTERS AND SOCIETY 3 Credit Hours

(Slashed with GEOG 41051 and GEOG 51051) Study of natural disasters; the physical causes of the hazards associated with the disasters; their effects on humans and societies; spatial and temporal distributions; and strategies to reduce the occurrences of disasters. Natural disasters include hurricanes, tornadoes, floods, landslides, heat waves, wildfire, blizzards, earthquakes, tsunami and volcanoes. Mitigation for disasters and responses to disasters are studied across economically developing nations and developed nations. Students learn through the analysis of numerous case studies of natural disasters.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71052 GLACIERS AND GLACIATION 3 Credit Hours

Examination of how glacial ice masses change the shape of the earth's surface, how they are integral to climate and sea level change, and how they pose high risk hazards.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71065 DATA ANALYSIS FOR CLIMATE AND THE ENVIRONMENT 3 Credit Hours

(Slashed with GEOG 41065 and GEOG 51065) Course aims to provide a full appreciation for the range of applicability of climate data to real-world problems. There are three overarching goals of the course: (1) to provide a broad overview of what weather and climate information is out there and how people synthesize weather and climate information for use in applied work; (2) to enable a thorough appreciation for the breadth of disciplines in which applied climatology plays a role; and (3) to provide real-world experience of working through an applied climatological problem, via a final project.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71066 GLOBAL CLIMATE CHANGE 3 Credit Hours

(Slashed with GEOG 41066 and GEOG 51066) Examination of the evidence and causes of climate change and how these data are assessed. Students discuss past, present and future impacts of climate change and variability, in addition to policy implications.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71073 CONSERVATION OF OUR NATURAL RESOURCES 3 Credit Hours

(Slashed with GEOG 41073 and GEOG 51073) Evaluation of past and current problems associated with the management of natural resources and the environments associated with their utilization.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71074 RESOURCE GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 41074 and GEOG 51074) Course explores the dynamic world of resource geography, where you'll examine how natural resources shape economies, societies, and environments. From energy and minerals to water and agriculture, this course offers an exciting, in-depth look at the challenges and opportunities in managing our planet's most valuable assets.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71077 WATER AND SOCIETY 3 Credit Hours

(Slashed with GEOG 41077 and GEOG 51077) This course examines the relationships between water and the world's population with an emphasis on the developing world (Africa, Asia, Middle East, and Latin America). Students will analyze how water impacts humans and how humans impact water. The course begins by introducing the hydro-social cycle and network theories to provide a foundation and framework to understand the four primary course themes: water policy and governance (including privatization, public-private partnerships, and the various United Nations' global water initiatives), water as power (including social power and how governments politicize water), flooding and droughts (including vulnerabilities, adaptations, and mitigations), and inequalities (including on gender, quality, access, and affordability). The course concludes by revisiting these themes and applying ideas of water justice and sustainability. The course is primarily discussion-based with limited lectures to ensure students understand key concepts.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71082 GEOGRAPHY OF SOILS 3 Credit Hours

(Slashed with GEOG 41082 and GEOG 51082) An edaphological approach to soils, including morphology, formation, classification, geographical distribution and utilization. Students will be required to undertake field work.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 71195 SPECIAL TOPICS IN ENVIRONMENTAL GEOGRAPHY 1-3 Credit Hours

(Repeatable for a maximum 10 times)(Slashed with GEOG 41195 and GEOG 51195) Topics vary per course offering.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 71800 GLOBAL ENVIRONMENTAL ISSUES 3 Credit Hours

(Slashed with GEOG 41800 and GEOG 51800) Course examines environmental belief systems and explores various perceptions of the Earth's environment and its opportunities, constraints and risks. The goals of the course is twofold: (1) develop a framework to allow students to explore both their own relationship to the environment and to understand the sociocultural constructs that have informed their personal environmental beliefs; and (2) apply this knowledge to critically assess various stakeholder perspectives of specific environmental issues.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 72052 HEALTH GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 42052 and GEOG 52052) This course examines health/medical geography, a subdiscipline of both public health and geography, that focuses on geographic aspects of health and disease. The field deals with human-environment interactions and their influence on human health. This course offers historical context to geography and health and covers three major approaches to health/medical geographic scholarship: ecological approaches, which systematically analyzes relationships between people and their environments; social approaches, including political economy and socio-behavioral approaches; and spatial approaches.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 72053 GEOGRAPHIES OF MEMORY AND HERITAGE 3 Credit Hours

(Slashed with GEOG 42053 and GEOG 52053) Course gives students a working knowledge in, and ability to understand and analyze, the intersection of memory and landscape as a tangible re-presentation of the human past, oftentimes used as a tangible expression of cultural or political power. Students focus on memorialization, preservation and tourism concepts and themes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 72064 SETTLING THE NORTH AMERICAN ENVIRONMENT 3 Credit Hours

(Slashed with GEOG 42064 and GEOG 52064) Course surveys the environmental changes of the North American continent brought about by Indigenous, European Colonial and American land use practices, from pre-Columbian times to present. Students engage with foundational historical narratives, evidence and methods for understanding these geographic pasts. Course is a combination of lectures and discussions of readings and in-class activities.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 72070 SEMINAR IN ETHNIC, LIFESTYLE AND NATIONAL COMMUNITIES 3 Credit Hours

(Slashed with GEOG 42070 and GEOG 52070) Covers the geographies of ethnic identity and nationalism, national identity and territory, borderlands and diasporas, national separatism and the variety of ways in which cultural difference asserts itself.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 72195 SPECIAL TOPICS IN SOCIAL GEOGRAPHY 1-3 Credit Hours

(Repeatable for maximum of 10 times)(Slashed with GEOG 42195 and GEOG 52195) Topics vary per course offering.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 74010 GEOGRAPHIES OF GLOBAL DEVELOPMENT 3 Credit Hours

(Slashed with GEOG 44010 and GEOG 54010) This course examines the political economy of development. More narrowly, we examine the historical geography of agricultural transformations and capitalist development. We draw from case studies from different regions to interpret differential patterns of development and political-economic change. Emphasis is placed on the creation, structure, and operation of the capitalist agro-food system and its impact on small-scale farmers and landless rural workers.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 75085 URBAN TRANSPORTATION 3 Credit Hours

(Slashed with GEOG 45085 and GEOG 55085) Transportation may be the single most important force shaping cities. Historically, cities have depended on their access to ports, canals, railroads and highways. Today, transportation networks, the use of public transportation, provisions for bicycles and pedestrians and transportation architecture continue to define how a city looks, feels and acts.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 76060 FOOD SECURITY AND SUSTAINABILITY 3 Credit Hours

(Slashed with GEOG 46060 and GEOG 56060) This course explores the concept of food security from the standpoint of agrarian change, food regimes, agroecology, and development. In the process, we examine the various frameworks that have grounded academic and popular understandings of famine and food security, including Malthusian, environmental determinism, Food Availability Decline (FAD), entitlements, and historical materialism.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 76070 URBAN AND REGIONAL PLANNING 3 Credit Hours

(Slashed with GEOG 46070 and GEOG 56070) Examines how cities develop and what "people" – through government, quasi-public institutions and private interests – can do to modify urban growth, the distribution of people and places and urban design.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 76080 URBAN SUSTAINABILITY 3 Credit Hours

(Slashed with GEOG 46080 and GEOG 56080) Provides an introduction to interdisciplinary perspectives on urban sustainability, focusing on environmental challenges caused by urbanization and the innovative ways urban dwellers seek to address those challenges. Course provides background on relevant disciplinary perspectives and their application to environmental challenge domains.

Prerequisite: Doctoral standing.

Schedule Type: Lecture, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 76081 SEMINAR IN URBAN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 46081 and GEOG 56081) Through class discussions and readings, students gain a better understanding of the various issues, projects and paradigms that make up the field of urban geography.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 77091 SEMINAR IN REGIONAL GEOGRAPHY 3 Credit Hours

(Repeatable for credit)(Slashed with GEOG 67091) Variable content seminar on one of the major regions of world.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 79004 QUANTITATIVE METHODS IN GEOGRAPHY 3 Credit Hours

(Slashed with GEOG 69004) Explores the methods and applications of some of the most common statistics found in geographic work. It explores probability theory, spatial statistics, estimation procedures, hypothesis testing, spatial sampling, methods of areal association, correlation and regression analysis, and principal components analysis. Theory and execution of these methods are equally emphasized, and applications to geographic problems are examined within each theme.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79070 GEOGRAPHIC INFORMATION SCIENCE 4 Credit Hours

(Slashed with GEOG 49070 and GEOG 59070) Introduction to theories and methods for geographic data processing, including data capture and input, data storage and management and data analysis and displays. Emphasis is on laboratory exercises using GIS software packages for real-world applications.

Prerequisite: Doctoral standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 lecture, 2 lab

Grade Mode: Standard Letter

GEOG 79072 GEOGRAPHIC INFORMATION SCIENCE AND HEALTH 3 Credit Hours

(Slashed with GEOG 49072 and GEOG 59072) Geographic theory and methods serve as the connection among disparate disciplines focused on how and why "health" varies between regions, cities and neighborhoods. Students examine how geospatial technologies, especially GIS, have become an important health analysis tool.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79073 ENVIRONMENTAL DATA ANALYSIS IN R 3 Credit Hours

(Slashed with GEOG 49073 and GEOG 49073) The course aims to teach students basic concepts, skills, and tools for working with data in R. R is an open-source (free!) programming language for statistical computing and graphics that statisticians widely use, scientists, data miners, and geographers. The number of R users grows exponentially each year, contributing to a massive online community and countless free tutorials. This is a hands-on course designed for students with no programming experience. However, this course does not teach statistics: understanding of basic statistics and common statistical tests is assumed and prior coursework in statistics is encouraged. With the knowledge gained in this course, students will be ready to undertake their own data analysis in R and increase their efficiency through reproducible workflows.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79075 GEOGRAPHIC INFORMATION SCIENCE: APPLICATIONS FOR SOCIAL PROBLEMS 3 Credit Hours

(Slashed with GEOG 49075 and GEOG 59075) Course provides a survey of geographic information system (GIS) and related mapping applications that are used to understand and solve a variety of social problems (e.g., crime, poor health and educational outcomes, exposure to environmental hazards). Through case studies, students learn spatial data acquisition, basic spatial analysis and forms of map-based visual communication to stakeholders and the general public.

Prerequisite: GEOG 79070; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79076 SPATIAL PROGRAMMING 3 Credit Hours

(Slashed with GEOG 49076 and GEOG 59076) Examination of the design, development and use of geographic information technologies with computer programming to model process and visualize geographic phenomena.

Prerequisite: GEOG 79070; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79078 GEOGRAPHIC INFORMATION SCIENCE AND ENVIRONMENTAL HAZARDS 3 Credit Hours

(Slashed with GEOG 49078 and GEOG 59078) The study and management of natural hazards are inherently reliant on both physical and human processes and spatial patterns. Given the many variables involved and the variety of scales at which they operate, use of geographic information system (GIS) has become standard practice in research on hazards and in their management by government agencies at all levels. Students are exposed to a wide array of spatial data that is used in these activities, as well as standard mapping and spatial analysis procedures and forms of data dissemination.

Prerequisite: GEOG 79070; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79080 ADVANCED GEOGRAPHIC INFORMATION SCIENCE 3 Credit Hours

(Slashed with GEOG 49080 and GEOG 59080) Provides both an overview of geographic information science (GIS) data structures, analytical functions and usage and modeling approaches. Students learn how to manage GIS data in different formats or projections; select GIS analytical tools for solving different problems; and model changes of geographical phenomena as represented by GIS data.

Prerequisite: GEOG 79070; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79082 CYBERGIS 3 Credit Hours

(Slashed with GEOG 69082) Explores cyberinfrastructure-enabled geographic information systems (i.e. cyberGIS) and related technologies including a broad introduction to the use, design, and development of cyberinfrastructure, spatial data infrastructures, geographic information services, and web-enabled mapping technologies. Situates cyberGIS in the broader context of geographic information science focusing on the how synthesizing computational thinking and spatial thinking influence methodological approaches.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79085 WEB AND MOBILE GEOGRAPHIC INFORMATION SCIENCE 3 Credit Hours

(Slashed with GEOG 49085 and GEOG 59085) Explores how web and mobile phones present opportunities and challenges to the field of geographic information science (GIS). This includes the examination of the use, design and development of cyberinfrastructure-enabled GIS emphasizing web- and mobile-based interfaces and technologies. Students are recommended to have GIS experience to enroll in the course.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79162 CARTOGRAPHY 3 Credit Hours

(Slashed with GEOG 49162 and GEOG 59162) Study of the design and production of dynamic, interactive, multimedia web-based mapping. Data acquisition and processing, symbolization, composition, text and color utilization.

Prerequisite: GEOG 49070 or GEOG 59070 or GEOG 79070; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 79195 SPECIAL TOPICS IN GEOGRAPHIC INFORMATION SCIENCE 1-3 Credit Hours

(Repeatable for maximum 10 times)(Slashed with GEOG 49195 and GEOG 59195). Topics vary per course offering.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GEOG 79230 REMOTE SENSING 3 Credit Hours

(Cross-listed with ESCI 72030)(Slashed with ESCI 42030, ESCI 52030, GEOG 49230, GEOG 59230) Computer analysis of multispectral satellite datasets. Applications in terrestrial earth science are emphasized.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GEOG 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

GEOG 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: GEOG 80199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

GEOG 80998 RESEARCH I 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed their candidacy examination. Credits earned may be applied toward degree if department approves.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Standard Letter

GEOG 81091 RESEARCH IN PHYSICAL RESOURCES 2,3 Credit Hours

(Repeatable for credit) Research on basic processes related to formation of physical environment. Investigation of significant variables in resource utilization relevant to regional planning and development.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 2-3 other

Grade Mode: Standard Letter-IP

GEOG 81998 RESEARCH II 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed their candidacy examination. Credits earned may be applied toward degree if department approves.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory

GEOG 89092 GRADUATE FIELD CAMP 5 Credit Hours

(Repeatable for credit) Field research problems involving individual investigation of specific urban or rural region.

Prerequisite: Doctoral standing.

Schedule Type: Field Experience

Contact Hours: 3 other

Grade Mode: Standard Letter

GEOG 89098 RESEARCH IN CARTOGRAPHY 1-3 Credit Hours
(Repeatable for credit) Investigations into function of map as medium of scientific expression; problem of map design in relation to human perception of graphically expressed spatial information.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Standard Letter

GEOG 89701 RESEARCH AND PRESENTATION OF GEOGRAPHIC DATA 3 Credit Hours

(Slashed with GEOG 69701) Critical discussion of the techniques of geographic research and the preparation and presentation of thesis and dissertation proposals.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Park Management (PARK)

PARK 21916 INTRODUCTION TO PARKS AND PROTECTED AREA MANAGEMENT 3 Credit Hours

Introduction to parks and protected area management including historical and cultural influences, the benefits of parks and outdoor recreation, identification of park and protected area management agencies such as the National Park Service, philosophical perspectives on natural resource conservation versus preservation and current trends affecting the field.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PARK 21941 OUTDOOR ADVENTURE LEADERSHIP 3 Credit Hours

Leadership concepts, principles, methods and techniques necessary for facilitating beneficial outdoor activities for all populations.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PARK 36082 INTERPRETATION OF NATURAL AND CULTURAL RESOURCES 3 Credit Hours

Interpretation is the art of creating intellectual and emotional bonds between people and natural and cultural resources. Interpretation is commonly practiced in parks and other protected areas, zoos, museums and a variety of tourist attractions. This course provides students with the philosophies, concepts and practical techniques necessary to plan and present effective interpretation of natural and cultural resources.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PARK 36083 ENVIRONMENTAL EDUCATION AND CONSERVATION 3 Credit Hours

Environmental education helps people better understand the natural world and to develop attitudes and behaviors conducive to environmental conservation. Teaches students the foundations, principles and techniques of environmental education thus enabling students to prepare and present effective environmental education programs.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PARK 41916 PARK PLANNING AND MANAGEMENT 3 Credit Hours

(Slashed with PARK 51916) The planning and management of parks and other protected natural areas in order to maximize the benefits to visitors and neighboring human communities while protecting the resources which make the parks unique.

Prerequisite: PARK 21916.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PARK 51916 PARK PLANNING AND MANAGEMENT 3 Credit Hours

(Slashed with PARK 41916) The planning and management of parks and other protected natural areas in order to maximize the benefits to visitors and neighboring human communities while protecting the resources which make the parks unique.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Department of History

History (HIST)

HIST 11050 WORLD HISTORY: ANCIENT AND MEDIEVAL (KHUM) 3 Credit Hours

World history from pre-history through the transformations of the 15th century. Topics of study may include foundational myths, the agricultural revolution, the rise of ancient empires and trade networks and the spread of world religions.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, TAG History, Transfer Module Humanities

HIST 11051 WORLD HISTORY: MODERN (KHUM) 3 Credit Hours

World history from the 15th century to the present. Topics of study may include the Columbian Exchange, industrialization, political revolutions, responses to western imperialism, globalization and the birth of the modern world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, TAG History, Transfer Module Humanities

HIST 12061 AMERICAN FOUNDATIONS: FROM PRE-COLONIZATION TO CIVIL WAR AND RECONSTRUCTION (CIV) (KHUM) 3 Credit Hours

The development of the United States from its Native American roots and European immigration through the Civil War and Reconstruction. Course includes major political, social, cultural and economic developments; and incorporates key American civic literacy texts, specifically the Declaration of Independence, selected essays from the Federalist Papers, the U.S. Constitution, selections from Adam Smith's *Wealth of Nations*, the Emancipation Proclamation, the Gettysburg Address; and Martin Luther King Jr.'s Letter from the Birmingham Jail.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: American Civic Literacy, Kent Core Humanities

HIST 12071 MODERN AMERICA: FROM INDUSTRIALIZATION TO GLOBALIZATION (KHUM) 3 Credit Hours

The transformation of the United States after the Civil War to the present. Themes covered include political, social, cultural and economic developments.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, TAG History, Transfer Module Humanities

HIST 30010 NEW DEAL AMERICA AND BEYOND 3 Credit Hours

Examines the impact and meaning of the Depression era, suggesting that the crisis helped to usher in a new way of imagining American society. Beginning with an overview of modernism, modernity and the modern age, the course explores how the New Deal fits into these theories, how specific programs operated under their ideals, and finally, how American society adapted and accepted this 'modern' vision.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30020 THE SIXTIES IN AMERICA 3 Credit Hours

The era of the 1960s outlined the debates and patterns of American history in the latter part of the twentieth century and continues to resonate in our contemporary world. This course examines the seminal events, persons and developments, including JFK's New Frontiers policy; Martin Luther King Jr. and Malcolm X; the March on Washington; Johnson's Great Society; the Vietnam War; the New Left; the counterculture; country music; the rise of modern conservatism; Nixon; Watergate; and the oil crisis, to get a better understanding of the meaning and significance of this crucial era to the history of the United States and the world.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30030 IDEAS IN ACTION: U.S. INTELLECTUAL HISTORY 3 Credit Hours

The idea forms the root of what is intellectual history. The unfolding and discussion of ideas and their application within society outline their path of study. Once the preserve of the thoughts of a select few white men, the field has broadened significantly with the cultural turn in the latter years of the twentieth century to include a more diverse number of voices and issues. Blending these ideas into practice allows us to better witness how history operates both within and outside the confines of the linear structure of time and place.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30040 19TH CENTURY EUROPE 3 Credit Hours

Focus on industrialization and social transformation, political upheavals, intellectual thought, nationalism and foreign policy in Great Britain, France, Prussia and Austria.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30049 MODERN EUROPEAN HISTORY, 1914-1945 3 Credit Hours

Special attention paid to the two world wars, Bolshevik Revolution, rise of fascism and fate of European Jewry.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30050 MODERN EUROPEAN HISTORY: 1945-PRESENT 3 Credit Hours

This course examines Europe as it emerged from the wreckage of the Second World War and into a world changing in ways hitherto unimaginable. European countries both east and west were now confronted with the challenges of rapid reindustrialization then deindustrialization, decolonization (the collapse of empires) and the emergence of the Global South, cultural upheaval and political transformation and a globe-encompassing Cold War. In addition, this new situation posed important existential questions: What exactly is Europe and what role should it and its constituent societies play in the postwar world? Through a combination of primary and secondary sources - including written documents, images and historically significant films - this course introduces students to the social, political, cultural, economic and geopolitical processes by which Europe became what it is today, and which will continue to influence its path into the future.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30060 HISTORY OF GERMANY, 1871-PRESENT 3 Credit Hours

Focuses on the impact of industrialization, dilemma of the German left, rise of Nazism and emergence of two German states after 1945.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30070 THE HOLOCAUST: THE DESTRUCTION OF EUROPEAN JEWRY, 1938-1945 3 Credit Hours

Analysis of the political, economic, social and intellectual factors leading to systematic destruction of European Jewry during World War II.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30111 JEFFERSON-JACKSON ERA, 1789-1848 3 Credit Hours

Study of the founding and development of the American nation, especially the periods of Jefferson and Jackson.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 30112 THE UNITED STATES: THE WESTWARD MOVEMENT 3 Credit Hours

The process of settlement from its beginnings; consequences for American history.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31000 INTRODUCTION TO PUBLIC HISTORY 3 Credit Hours

A survey of public history including archives, editing, museums and historical agency administration; historic preservation and related skill areas (e.g. artifact analysis, oral history).

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31020 POLIS TO METROPOLIS: HISTORY OF THE EUROPEAN CITY 3 Credit Hours

This course examines urban identities in Europe from antiquity to the present, including Greek and Roman cities; medieval cities, city leagues and city law; early modern planned communities, court residences and commercial metropolises; 18th and 19th century resort towns, 19th century capital cities and industrial cities; the devastation of the World Wars; and post-war reconstruction. The course examines cities as "windows" into the societies they serve; the fortunes and misfortunes of cities are treated as mirrors of regional economic, political and social trends. The thematic focus of the course is on the political "message" encoded in architecture, design and layout, and the course interprets the outward face of cities as an expression of political identity, power and even civic virtù. This course is offered primarily at the Stark Campus.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31022 THE GREAT POWERS IN WAR AND PEACE, 1792-1914 3 Credit Hours

History of international relations from the French revolutionary wars to the outbreak of World War I. Emphasis on peacemaking and peacekeeping, development of international law, the decision-making process for foreign policy and the definition of the "national interest."

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31023 THE GREAT POWERS IN WAR AND PEACE, 1914-1945 3 Credit Hours

History of international relations from World War I to the end of World War II. Emphasis on the creation of new states, development of international law and the decision-making process for foreign policy. Shock-and-awe tactics of imperial Japan, Soviet Russia, fascist Italy and Nazi Germany and the responses of Britain, France and the United States. Was World War II a "continuation war" of World War I?

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31024 WORLD WAR II 3 Credit Hours

Survey of one of the greatest political and military events in history, focusing especially on causes, major personalities and chief political, ideological, moral, scientific and diplomatic aspects.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31025 ITALY FROM ROME TO THE RENAISSANCE 3 Credit Hours

A survey of the history of the Italian peninsula from the Roman Empire until the Renaissance, with particular emphasis on turning-point moments in politics, art, literature, theology and philosophy between the fall of Rome and the Renaissance. Throughout the course, developments on the Italian peninsula will be situated within the broader European context.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31026 ITALIAN HISTORY FROM THE RENAISSANCE TO THE ENLIGHTENMENT 3 Credit Hours

This survey course examines key developments in the history of Early Modern Europe until the Enlightenment through the lens of the Italian peninsula's central role in European exploration, thought and religion.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31031 REFORMATIONS IN EARLY MODERN CHRISTIANITY 3 Credit Hours

This course explores the origins, development and consequences of the religious reformations in early modern Europe from the late fifteenth century to the early seventeenth century, drawing on the approaches of social, cultural and intellectual history. It explores the significance of the rise of various Protestant confessions as well as the reform of the Catholic church from the perspectives of popular belief and formal doctrines. A survey of the beliefs of the major Christian confessions - such as Lutheranism, Calvinism and Catholicism - is complemented by an exploration of the intertwining of politics and religion and the social and cultural effects of religious reform.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31032 THE GLOBAL CRISIS OF THE SEVENTEENTH CENTURY 3 Credit Hours

The seventeenth century was a period of crisis especially in Europe, but around the world due to climate change, encounters between peoples from different parts of the globe, the integration of economies, religious tensions and almost constant warfare. This course explores the roots of these crises as well as their consequences. It examines environmental changes; religious tensions; and some of the shifting social, political and economic structures of seventeenth-century Europe. It compares what happened during this period in Europe to other places around the globe, and investigates the interactions between peoples from Europe, Asia, Africa and the Americas.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31033 WITCHES AND EUROPEAN HISTORY, 1500-1800 3 Credit Hours

This course explores 15th through 17th century European witch hunts and their decline during the 18th century through lecture and class discussions of both primary and secondary sources. The course has four parts. Part one investigates the development of notions of diabolical witchcraft from the ancient world. Part two examines the intellectual, gender, religious, social and legal backgrounds that helped cause witch hunts. Part three explores the dynamics of witchcraft trials. Part four explores the decline of witchcraft.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31034 MURDER MYSTERY AND MAYHEM: THE MEDICI DYNASTY IN FLORENCE 3 Credit Hours

This course explores the dynastic control that the infamous Medici family exerted over every aspect of Florentine life. It explores their rise to power, from the revolutionary and cunning tactics of Cosimo de' Medici, to the rich vision of Lorenzo "Il Magnifico," to Anna Maria Luisa's efforts to establish the Medici legacy forever in the city of Florence. Through an examination of this influential family, their methods of persuasion and power are revealed, which extended far beyond the boundaries of Florence to the papacy and into all corners of Europe.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31035 THE GLOBAL COLD WAR 3 Credit Hours

Explores the Cold War through a global lens. Includes political, diplomatic, cultural and social perspectives.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31036 THE 20TH CENTURY WORLD 3 Credit Hours

Survey of 20th century history. Taking globalization and the stresses and successes of modernity as unifying themes, this course examines topics such as culture and ideology; sovereignty and decolonization; nation and nationalism; war and peace; Cold War and non-alignment; revolutions and the nuclear question; and some of the myriad ways different people and peoples across the world have embraced, exploited, contested, struggled and persevered, impacted and been transformed by the modern world.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31040 AMERICAN HISTORY THROUGH POPULAR MUSIC 3 Credit Hours

Students develop an understanding of the interconnection between the rise of popular music after 1865 and the social, political and technological changes of the period. This perspective helps students understand the meaning and significance of cultural identity throughout modern American history.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31041 SPORT HISTORY IN THE UNITED STATES 3 Credit Hours

This course examines and interprets American sports from the colonial era to the present with particular attention to the role of sports in American life and how changes in American life have affected sports. The course also offers an exploration of American social and cultural history with an emphasis on issues such as race, class, gender, foreign policy, nationalism, religion, economics, industrialization, immigration and urbanization as they relate to sports. It is not a course covering sports trivia. The main goal of this course is to use sports as a way to better understand American history and culture. This course is offered primarily at the Stark Campus.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31045 A HISTORY OF CRIME IN THE UNITED STATES 3 Credit Hours

This course explores the history of "living outside the law" during the 19th and 20th centuries. Students read biographical and autobiographical treatments of and monographs about men and women who committed crimes during these centuries and use them as a lens through which to view the changing experiences, constraints and self-understandings of people who committed crimes throughout U.S. history. Some sections of this course may be offered as part of the Inside-Out program, during which the course takes place at a nearby prison or jail and includes students who are incarcerated.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31055 POLITICS, CULTURE AND SOCIETY OF 20TH CENTURY EUROPE 3 Credit Hours

This course explores the political, social, cultural and other factors that have marked the path of European history during the last century, from the origins of World War I to the end of the Cold War. The course explores not only the origins and consequences of warfare, but also the ways in which everyday life was transformed during this turbulent era. This course covers the era of "Great Wars;" "economic miracle" after the war; challenges of the Cold War; generational rebellion; and formation of the European Union with special attention to the political, social and cultural transformations associated with these developments. The thematic anchors of the first half of the course are "total war" and "rebellion against positivism," while the thematic anchors of the second half of the course are "rebirth" and "the two Europes."

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31056 EUROPE IN THE RENAISSANCE 3 Credit Hours

Analysis of the various factors leading Europe from a rural, feudal, ecclesiastical society to one characterized by urbanism, trade, secularism and the state.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31057 THE FRENCH REVOLUTION AND NAPOLEON 3 Credit Hours

Analysis of the causes of revolution in France, political, ideological and social conflict in the construction of French democracy expansion of the revolution outside of France.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31061 HISTORY OF OHIO 3 Credit Hours

This course explores key events and institutions shaping the geographic region that became Ohio, from prehistory to present day with an emphasis on the social, cultural, political and economic history of the region. Topics include the historical significance of Ohio's geography, role and contributions of Native American people, transition to statehood and modern economic and political developments.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31071 AMERICA AND THE WORLD THROUGH 1898 3 Credit Hours

Explores the foundational period of the American interaction with the outside world. Includes consideration of the roots and principles of American international policy, continental consolidation and American incursions in the Western Hemisphere.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31072 AMERICA AND THE WORLD: 1898-1945 3 Credit Hours

Explores the evolving American world role from the Spanish-American War through World War II. Includes consideration of the expanding U.S. interest in Latin America, Asia and elsewhere, as well as the liberal international vision that impelled such interest.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31073 AMERICA AND THE WORLD SINCE 1945 3 Credit Hours

Explores the rise and fall of American global hegemony since World War II. Includes consideration of the Cold War, decolonization, détente and the post-Cold War era.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31074 HISTORY OF ESPIONAGE: FROM JOSHUA TO EDWARD SNOWDEN 3 Credit Hours

This course traces the history of intelligence gathering from the ancient world through the 21st century. The study of spy networks provides students with an understanding of emerging intelligence systems, including both examples of espionage and counterintelligence. The course assesses the cultural and political impact of intelligence gathering on society at large and discusses ethical issues, such as the balance between privacy and security. While most of the focus is on the United States, lectures and discussions also cover Britain, Germany, Japan, China, Israel and Russia, with considerable attention to World Wars I and II and the Cold War.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31075 HISTORY OF WOMEN IN THE UNITED STATES 3 Credit Hours

(Cross-listed with WMST 30100) An exploration of the political, economic, social, intellectual and cultural forces that have shaped women's lives, women's thought, perceptions of womanhood and feminism, from 1607 to the present in what is now the United States.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31077 HISTORY OF SEXUALITY IN THE UNITED STATES 3 Credit Hours

This course explores how people living in the United States learned about sex. Together, Americans throughout all time periods have developed sexual cultures and norms and accommodated themselves to, ignored, creatively interpreted or defied or changed these cultures and norms over time. The course focuses on how sexual cultures and norms were taught and enforced, and different types of institutions and professionals (religious leaders, mental health professionals, law enforcement officers, journalists and popular cultural figures) played roles in this process.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31080 AFRICAN AMERICAN HISTORY: SLAVERY TO FREEDOM 3 Credit Hours

Survey of African American history from the colonial period to 1877. Course provides a general knowledge of the social, political and cultural history of African Americans from colonial times to the end of the Reconstruction.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31082 HISTORY OF THE CIVIL RIGHTS AND BLACK POWER MOVEMENTS IN THE UNITED STATES 3 Credit Hours

This course examines Civil Rights and Black Power movements during the 20th century and addresses a series of questions still relevant today: How do social movements begin? What leadership styles and protest tactics and strategies work? How do social movements evolve over time? This course also explores the history of the Civil Rights and Black Power movements at Kent State University.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31083 THE HISTORY OF WHITENESS IN THE UNITED STATES 3 Credit Hours

This course surveys the full sweep of the history of the United States to interrogate what exactly "whiteness" was and is and what it has meant throughout the American past. To do so, this course closely examines a series of crucial turning points of the history of "whiteness" in the United States: (1) the colonial era and creation of "whiteness" as an identity and (2) the evolution of "whiteness" during the long 19th and 20th centuries.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31084 THE INVENTION OF AMERICA: 1492-1714 3 Credit Hours

Students explore the coming together of European, Native American and African peoples in the Western Hemisphere from 1492 to 1714.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31085 ALEXANDER HAMILTON'S WORLD: 18TH-CENTURY AMERICA 3 Credit Hours

Students explore 18th-century America, including the American Revolution and its aftermath, with special reference to the decisions and actions of Alexander Hamilton. The course focuses on how 13 disparate English colonies came together to form a new nation in North America during the 18th century. Students study not only the political narrative of this process, but also how the transformation affected society — men and women; rich and poor; and free, slave and American Indian. The life of Alexander Hamilton provides insight into all these topics.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31087 SECTIONAL CONFLICT AND CIVIL WAR 3 Credit Hours

Differences within the United States, including the controversy over slavery; the Civil War in all its aspects.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31100 RECONSTRUCTION AND THE LATER SOUTH 3 Credit Hours

Controversy during and after the Civil War as to racial and sectional relationships; the post- Reconstruction compromises and their undoing.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31101 WAR AND SOCIETY IN THE UNITED STATES FROM 1607 THROUGH 1865 3 Credit Hours

An examination of the impact of conflict and the military upon the society, culture, economy and diplomacy of the United States. Topics include colonial Indian wars, the Revolutionary War, the War of 1812, the Mexican-American War and the Civil War.

Prerequisite: HIST 12061.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31102 WAR AND SOCIETY IN THE UNITED STATES FROM 1865 TO THE PRESENT 3 Credit Hours

An examination of the impact of conflict and the military on the society, culture, economy and diplomacy of the United States. Topics include the frontier Army, Spanish-American War and empire in the Pacific, two world wars, Cold War and War on Terror.

Prerequisite: HIST 12071.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31104 MIGRATIONS TO AMERICA, 1607 TO PRESENT 3 Credit Hours

Examines the coming together of people from five continents to the United States and provides an overview of shifting patterns of migration both coerced and free to the United States. Starting in the colonial era, when slaves and servants typified the migration to America, this course then follows the migrations of pre-industrial, industrial and post-industrial immigrants; their reception by American institutions and natives; and their efforts to construct communities in a new country.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31105 THE RECONSTRUCTION OF AMERICA, 1863-1893 3 Credit Hours

Course explores and assesses the attempt to realize what Abraham Lincoln called "a new birth of freedom" during the decades following the American Civil War. In the moment, "reconstructing" the United States quickly moved past the political reintegration of the former Confederate states into the federal republic to a more expansive quest to revolutionize American society and institutions by placing them on a foundation of equal rights. The struggle to define and claim freedom and equality thus possessed major implications for all aspects of American life, along with more than a few ironies, exclusions and contradictions. By the early 1890s, Americans' collective effort to settle these questions produced some areas of consensus, but also continued to divide a country that to many contemporaries appeared to be confronting serious and accelerating crises.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31106 PROGRESSIVE AMERICA - REFORMERS, CRUSADERS AND RADICALS: AMERICA, 1893-1929 3 Credit Hours

Major political, economic, social, cultural and diplomatic events from the crisis of the 1890s through the first World War.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31107 NEW ERA THROUGH WORLD WAR: THE UNITED STATES, 1920-1945 3 Credit Hours

Major political, economic, social, cultural and diplomatic events from the new era of the 1920s through the second World War.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31109 THE CONTEMPORARY UNITED STATES SINCE 1980 3 Credit Hours

This course focuses on the major political, economic and cultural trends that have defined the United States since 1980. Topics include the Reagan Revolution and its consequences; the changing legacy of the Vietnam War; the emergence of AIDS as a serious public health crisis; challenges posed by the end of the Cold War and Global War on Terror; and the emergence of domestic culture wars and widening political divisions. Thematically, the course addresses the effects of globalization, immigration and political shifts on American national identity.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31112 CHINESE CIVILIZATION 3 Credit Hours

General survey of the evolution of Chinese civilization from the Bronze Age to the rise of communism.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31113 HISTORY OF JAPAN 3 Credit Hours

General survey of the development of Japan from a loose confederation of clans to a modern industrial state.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31114 TRADITION AND REVOLUTION IN SOUTHEAST ASIA 3 Credit Hours

Focusing on Southeast Asia, this course is organized chronologically around three broad periods: traditional states and societies (to 1800); colonial transformations and indigenous responses (1800-1945); and the emergence of modern nations (since 1945). Within these broad time frames, the course explores several themes, including the origins of indigenous states; the impact of colonial domination; responses to colonial rule; and the nature of post-colonial societies and political systems. Given the size and diversity of the region, the course concentrates on four nation-states: Burma, Thailand, the Philippines and Indonesia.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31118 VIETNAM WAR 3 Credit Hours

Study of the causes, evolution and effects of warfare in Vietnam from 1946 to 1975, with special attention to colonialism, nationalism, communism and American intervention.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31124 HIGHLIFE HISTORIES: MODERN AFRICAN URBAN EXPERIENCE 3 Credit Hours

The term "highlife" is most often associated with a musical style originating in Ghana and Sierra Leone during the 1920s and popular to the present day. The music mixed the sounds of American, European and Caribbean influences within African musical traditions. Just like the music, African urban life has been a mixture of western notions of town planning, architecture and politics with African cultural and interpersonal traditions. The history of the African city offers a useful lens into the complicated and creative mixture of African and global sources. This course focuses on this mixing throughout the 20th century, concentrating on cities such as Harare, Zimbabwe; Accra, Ghana; Lagos, Nigeria; and Nairobi, Kenya.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31126 HISTORY OF THE MIDDLE EAST 3 Credit Hours

This course covers the Ottoman Empire and its legacies; 19th century intrusion of the west; search for an Arab identity; emergence of Zionism; post-World War I mandate system; reconstruction of Turkey and Iran; struggle for Egyptian independence; post-World War II Arab-Israeli conflict; Arab socialism and the "Arab Cold War"; return of political Islam; emergence of the Gulf states; and demographic pressures.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31130 HISTORY OF PRE-COLONIAL AFRICA TO 1880 3 Credit Hours

This course provides a survey of the cultural, political, social and economic history of Africa from antiquity to the onset of European colonialism during the 1880s. The history of the Atlantic, Saharan and East African slave trade are investigated, as are the contributions of African cultures to world history.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31131 HISTORY OF COLONIAL AFRICA, 1880-1994 3 Credit Hours

This course provides a survey of African experiences with colonialism from the period of formal colonialism to the period of decolonization and the end of settler colonialism in Rhodesia and South Africa. The course explores regional experiences across sub-Saharan Africa and North Africa. The course explores questions of resistance and collaboration and the foundations of post-colonial states in the colonial experience. Gender, class, ethnicity and generational differences are explored at the center of this historical survey.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31132 HISTORY OF POST-COLONIAL AFRICA 3 Credit Hours

This course seeks to challenge students to deconstruct the specific causes, meanings and consequences of political violence in 20th- and 21st-century Africa, in addition to the impact such violence has had on African democratic traditions. Students explore recent and current categories of political violence, including state violence against ethnic and regional minorities. Students also examine the positive contributions of African culture and daily life, with attention to alternative futures for Africans and others based on African experience.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31140 MODERN LATIN AMERICA 3 Credit Hours

This course examines modern Latin America as an historical, geographical, cultural, political and economic zone focusing on the nineteenth and twentieth centuries. It explores the similarities and differences within Latin America as well as between Latin America and other parts of the world. Topics included the impact of colonization and the experience of Indigenous populations, the causes and consequences of political and social revolutions, the success and failures of different political formations and the struggles to sustain economic development.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31141 EARLY MODERN LATIN AMERICA (C. 1450-1820) 3 Credit Hours

This course examines the history of Latin America from the late fifteenth to the early nineteenth centuries. It focuses on the political, social, cultural, and economic interactions between Native Americans, Africans and Europeans from the early decades of Iberian exploration and conquest to the independence movements of the early nineteenth century. While attending to the systems of social, racial and gender hierarchy and discrimination implemented by Europeans, the course also emphasizes the significant ways in which Native Americans and Africans resisted and shaped colonization.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31543 THE SCIENTIFIC REVOLUTION 3 Credit Hours

A survey of the major social, cultural and historical developments of the sciences and medicine in Europe from 1500 to 1750.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 31550 MEDICINE IN THE MODERN WORLD SINCE 1500 3 Credit Hours

An introduction to the main social, cultural and intellectual developments of the history of medicine from the Renaissance to the 20th century using an approach to the history of medicine that emphasizes the interactions between ideas, institutions and individuals.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 32050 HISTORICAL RESEARCH METHODS 3 Credit Hours

Introduction to the study and practice of historical writing including historical methods, historiography, primary and secondary source research, critical analysis or documentary sources, historical reasoning and the preparation of written reports. Emphasis on developing effective communication skills and research procedures, record-keeping, citation and bibliography.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 37001 FLORENCE THE MYTH OF A CITY 3 Credit Hours

Florence is considered the birthplace of the Renaissance and the cradle of modern Western Civilization because, among the many Italian city-states, it experienced a cultural development that had no precedent in European history. Florentine republicanism is a political paradigm through which we, still today, trace the origins of the values of democracy, freedom, rational thought, individualism, the scientific method and the capacity for critical reflection. This course covers and analyzes different historical eras of Florence from its founding, during the Roman era, up until today. Special attention is given to periods of intensive development in Florence: the re-birth of the Middle Ages, the splendor of the Renaissance, and the crucial role of the Risorgimento, when the city was the capital of the new Kingdom of Italy (1865-1871) and became a center of culture and modern civilization. This course will be offered only in Florence.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 37089 FLORENCE: THE MYTH OF A CITY (ELR) 3 Credit Hours

Florence is considered the birthplace of the Renaissance and cradle of modern Western civilization because, among the many Italian city-states, it experienced a cultural development that had no precedent for European history. Florentine republicanism is a political paradigm through which we, still today, trace the origins of the values of democracy, freedom, rational thought, individualism, the scientific method and capacity for critical reflection. This course covers and analyzes different historical eras of Florence from its founding during the Roman era until today. Special attention is given to periods of intensive development in Florence: the re-birth of the Middle Ages; splendor of the Renaissance; and crucial role of the Risorgimento, when the city was the capital of the new Kingdom of Italy (1865-1871) and became a center of culture and modern civilization. This course is only offered in Florence.

Prerequisite: Sophomore standing.

Schedule Type: International Experience, Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

HIST 38495 SPECIAL TOPICS IN AREA STUDIES 3 Credit Hours

Special course with a primary focus on the history of a particular place (state, nation, region). Topic as well as chronological and geographical focus will vary by term and by instructor. Exact course titles and descriptions will be inserted into the Schedule of Classes. Repeatable for credit.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 38595 SPECIAL TOPICS IN THEMATIC STUDIES 3 Credit Hours

Special course with a primary focus on the history of a specific topic or theme. Chronological and geographical focus as well as topic will vary by term and by instructor. Exact course titles and descriptions will be inserted into the Schedule of Classes. Repeatable for credit.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 40092 INTERNSHIP IN HISTORY (ELR) 3 Credit Hours

(Repeatable for credit) Student internship at an institution related to the history major (e.g., historical society, museum, archives, historic preservation organization).

Prerequisite: Junior standing.

Schedule Type: Practical Experience

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory

Attributes: Experiential Learning Requirement

HIST 40093 WORKSHOP IN HISTORY 1-6 Credit Hours

(Repeatable for credit) (Cross-listed with HIST 50093) Special workshop in history. Topic will vary according to professor.

Prerequisite: None.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

HIST 41003 HISTORY OF ANCIENT GREECE 3 Credit Hours

(Slashed with HIST 51003) (Crosslisted with CLAS 41005 and CLAS 51005) Survey of Greek history from the Bronze Age to the rise of Macedonia and Alexander the Great.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 41006 ROMAN HISTORY 3 Credit Hours

(Cross-listed with CLAS 41006 and CLAS 51006) (Slashed with HIST 51006 and HIST 71006) A survey of Roman history from its beginnings to the fall of the Roman Empire.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 41034 THE POLITICS OF DRESS IN MODERN EUROPE 3 Credit Hours

(Slashed with HIST 51034 and HIST 71034) An examination of the role clothing played in the history of Modern Europe that uses labor, social, gender, and religious history to understand how political and economic changes affected the daily lives of Europeans through a close examination of what they wore.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 41060 COMPARATIVE FASCISM 3 Credit Hours

(Slashed with HIST 51060 and HIST 71060) Examination of the theories and practices of fascist movements and regimes in 20th-century Europe utilizing a variety of perspectives. Organized primarily thematically instead of geographically with readings and discussions based on historiographical and critical analyses.

Prerequisite: Junior standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 49091 SENIOR SEMINAR IN HISTORY (ELR) (WIC) 3 Credit Hours

(Repeatable for credit) History majors complete a significant work of original research based on primary sources. Topics vary by instructor. Enrollment limited to senior history majors.

Prerequisite: HIST 32050 with minimum C grade; and history major; and senior standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

HIST 49095 SPECIAL TOPICS IN UNITED STATES HISTORY 3 Credit Hours

(Repeatable for a maximum of 18 credit hours) (Slashed with HIST 59095 and HIST 79095) Special course in the history of the United States, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of classes.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 49195 SPECIAL TOPICS: EUROPE SINCE 1500 3 Credit Hours

(Repeatable for maximum 18 credit hours) (Slashed with HIST 59195 and HIST 79195) Special course in the history of Europe since 1500, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of Classes.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 49196 INDIVIDUAL INVESTIGATION 2,3 Credit Hours

(Repeatable for credit)

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

HIST 49199 SENIOR HONORS PROJECT (ELR) 3-6 Credit Hours

(Repeatable for credit) Thesis or other independent study or creative project. Required of students seeking to graduate with honors in history.

Prerequisite: Special approval.

Schedule Type: Project or Capstone

Contact Hours: 3-6 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

HIST 49295 SPECIAL TOPICS IN GLOBAL HISTORY 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 59295 and HIST 79295) Special course in the history of the ancient and medieval worlds, Africa, Asia, Latin America, and/or the Middle East, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of Classes.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 50093 WORKSHOP IN HISTORY 1-6 Credit Hours

(Slashed with HIST 40093)(Repeatable for credit) Special workshop in history. Topic will vary according to professor.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

HIST 51003 HISTORY OF ANCIENT GREECE 3 Credit Hours

(Slashed with HIST 41003) (Cross-listed with CLAS 41005 and CLAS 51005) The course is a survey of Greek history from the Bronze Age to the rise of Macedonia and Alexander the Great.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 51005 TEACHING WORLD HISTORY 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 71005) To prepare graduate students to teach world history at the university level. Special focus on integrating non-Western sources and points of view into the world history curriculum, preparation of world history syllabus and justification of selected readings and topics, mastery of on-line and in-class technologies to deliver world history materials.

Prerequisite: Graduate standing in history.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 51006 ROMAN HISTORY 3 Credit Hours

(Cross-listed with CLAS 41006 and CLAS 51006) (Slashed with HIST 41006 and HIST 71006) A survey of Roman history from its beginnings to the Fall of the Roman Empire.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 51034 THE POLITICS OF DRESS IN MODERN EUROPE 3 Credit Hours

(Slashed with HIST 41034 and HIST 71034) An examination of the role clothing played in the history of Modern Europe that uses labor, social, gender, and religious history to understand how political and economic changes affected the daily lives of Europeans through a close examination of what they wore.

Prerequisite: Graduate standing.

Schedule Type: Lecture, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 51060 COMPARATIVE FASCISM 3 Credit Hours

(Slashed with HIST 41060 and HIST 71060) Examination of the theories and practices of fascist movements and regimes in 20th-century Europe utilizing a variety of perspectives. Organized primarily thematically instead of geographically with readings and discussions based on historiographical and critical analyses.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 59095 SPECIAL TOPICS IN UNITED STATES HISTORY 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 49095 and HIST 59095)
Special course in the history of the United States, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of Classes. Repeatable.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 59195 SPECIAL TOPICS: EUROPE SINCE 1500 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 49195 and HIST 79195)
Special course in the history of Europe since 1500, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of Classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 59295 SPECIAL TOPICS IN GLOBAL HISTORY 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 49295 and HIST 79295)
Special course in the history of the ancient and medieval worlds, Africa, Asia, Latin America, and/or the Middle East, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of Classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 60092 PUBLIC HISTORY INTERNSHIP 3-6 Credit Hours

(Repeatable for credit) (Slashed with HIST 70092) Students serve an internship at an institution related to their emphasis in public history (e.g., historical society, museum, archives, historical preservation organization).

Prerequisite: Graduate standing.

Schedule Type: Practical Experience

Contact Hours: 3-6 other

Grade Mode: Satisfactory/Unsatisfactory

HIST 61002 HISTORIOGRAPHY 3 Credit Hours

Development of historical thinking. Students will read excerpts of famous historians and prepare papers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 61070 WRITING SEMINAR IN HISTORY 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 81070) Students will spend the semester conceptualizing, researching and writing an article-length piece of original historical scholarship. Basic topics to be addressed include prospectus drafting, source identification, historiography, research methods, scholarly writing and revision, oral presentation and professional critiquing. All students will be expected to supplement the guidance they receive from the seminar instructor with regular consultations with their departmental advisors.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 62000 READINGS IN EARLY MODERN HISTORY 3 Credit Hours

(Slashed with HIST 82000) This course offers an overview of the major themes and problems in the historical scholarship on early modern Europe and the early modern world. It will also explore different methodological and theoretical approaches drawing from foundational and recent scholarship in intellectual history, cultural history, social history, gender history and global history. Topics may include the Renaissance, Europe's Reformations, the Scientific Revolution and the Enlightenment, the French Revolution, court culture and the rise of absolutism, popular culture and everyday life, Europe's colonial and commercial expansion, the rise of capitalism, urbanization and the emergence of industrialization.

Prerequisite: Graduate Standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 62070 AMERICAN HISTORY FROM PRECONTACT NATIVE AMERICA THROUGH THE CIVIL WAR 3 Credit Hours

(Slashed with HIST 82070) This reading colloquium surveys the major aspects of American history from the arrival of Europeans in North America through the colonial period of American history and up to the Civil War and Reconstruction. Students are introduced to both historical content as well as the major historiographical currents in this segment of U.S. history. The aim of the course is to prepare students for comprehensive exams as well as to teach the first half of the U.S. survey course.

Prerequisite: Graduate standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62071 AMERICAN HISTORY FROM THE CIVIL WAR TO THE PRESENT 3 Credit Hours

(Slashed with HIST 82071) This reading colloquium surveys major aspects of American history since the Civil War within the historiographical traditions through which they have been understood. The aim of the course is to prepare students for comprehensive exams as well as to teach the second half of the U.S. survey course.

Prerequisite: Graduate standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62285 AMERICAN INTELLECTUAL AND CULTURAL HISTORY SINCE 1877 3 Credit Hours

(Slashed with HIST 82285) This colloquium will explore American Intellectual and Cultural History after 1877 by focusing on modernity. Our readings will discuss modernity's evolution from its late nineteenth-century roots to its dismantlement in the current epoch. We will hear, see, and read about this idea and how it is applied to various manifestations within our society, from material culture to advertising, music, and film.

Prerequisite: Graduate standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 62300 MAJOR READINGS IN THE IMMIGRATION AND MIGRATION HISTORY OF THE UNITED STATES 3 Credit Hours

(Slashed with HIST 82300) This course focuses on immigration, or more accurately, "migration," as an important aspect of the history of the United States. It begins with an introduction to the interdisciplinary and transnational perspectives that define the study of global migration before focusing on the journeys taken by European, Latin American, Asian, and African immigrants to the United States, the often transnational lives led by these immigrants, and the communities they built within the United States. Alongside these concerns, the course will also explore how American society has historically received and reacted to immigrants.

Prerequisite: Graduate Standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 62325 MAJOR READINGS IN ASIAN AMERICAN HISTORY 3 Credit Hours

(Slashed with HIST 82325) This course provides a foundational understanding of the history of Asian Americans in the United States, with special emphasis placed upon those groups whose roots in the U.S. go back to the nineteenth century. Key subjects under scrutiny in this course include emigration/immigration; the creation and continuation of ethnic ghettos; segmented and international labor markets; diasporic and domestic political movements; racial stereotyping; global wars; and cultural changes.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62326 BETWEEN PLOWS AND SWORDS: U.S.-CHINA CULTURAL RELATIONS SINCE THE LATE 1700S 3 Credit Hours

(Slashed with HIST 82326) This seminar explores the beginning, evolution, transformation, and impact of U.S.-China cultural relations since the late 1700s. The United States and China have built a complex and dynamic relationship in the past two and a half centuries. Among the dimensions of that relationship, cultural relations were the oldest, deepest, and most consequential. While non-governmental organizations and individual Americans as well as Chinese played a crucial role in initiating and expanding cultural contacts between the two nations, government intervention and control were intensified over time, turning cultural relations into an instrument to achieve domestic as well as foreign policies goals. How did cultural contacts between the two nations begin? Who were the major players in the making of the Sino-American cultural relations? What were their major goals? How did the U.S. and the Chinese governments get involved in bilateral cultural contact and exchange? What impact did the expansion of cultural ties have on both societies? How were the U.S.-China cultural relations changed during the Cold War? What impact did the Cold War transformation have on cultural relations during and after rapprochement? By addressing these key questions, this course gives students a deeper understanding of the complexity and dynamics of U.S.-China relations.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 62345 IMAGES AND IDENTITIES IN US FOREIGN RELATIONS 3 Credit Hours

This graduate-level reading colloquium will explore the construction of cultural images and national identities in US foreign relations. Course readings and discussions will deal not only with the ways that Americans have "constructed" other nations but also with how other nations have "constructed" the United States. Themes to be explored include the role of intangibles such as culture in the making of policy; the accuracy or inaccuracy of cultural constructs; and the permanency or malleability of cultural ideas.

Prerequisite: Graduate standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 62350 REVOLUTION AND REFORM: THE DEPRESSION ERA AND THE TRANSFORMATION OF AMERICAN SOCIETY 3 Credit Hours

(Slashed with HIST 82350) The Depression Era was a transformative time in the history of the U.S. state, but also of the U.S. people. This class engages with key readings in the historical discipline that approach this era with particular sensitivity to how regular Americans experienced, responded to, and shaped this crucial period.

Prerequisite: Graduate Standing.

Schedule Type: Seminar

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

HIST 62360 MARGINALITY AND POWER: HISTORY FROM BELOW 3 Credit Hours

(Slashed with HIST 82360) Who makes history? Every historian must grapple with this question and every generation of modern historians has answered this question in a different way. One response to this question is to write "history from below" and focus on the ways in which common people and historically marginalized groups have contributed to historical changes and developments in their societies and cultures. Throughout this course, we review some of the classic scholarship and new works that engage in the task of writing "history from below." Our goal is to understand how "history from below" has developed over the last few decades and to engage with the important questions about representation and agency that this approach to history raises. A variety of assignments serve to further our exploration of the topic and help us gain some practice not just in analyzing "histories from below," but also doing "history from below."

Prerequisite: Graduate standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62385 HIGH-LIFE HISTORY: AFRICAN URBAN CULTURAL HISTORIES 3 Credit Hours

(Slashed with HIST 82385) This course explores the African city. Whether they live in the metropolises of Johannesburg, Tauba, Nairobi, or Lagos, urban Africans have built diverse landscapes and lives. This class examines those everyday lives, in a cross-cultural exploration of the history of African urban spaces.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62400 THE LENS OF WAR: AMERICAN HISTORY THROUGH THE STUDY OF THE MILITARY 3 Credit Hours

(Slashed with HIST 82400) A survey of the impact conflict and the peacetime military have had on both the history and historiography of colonial America and the United States. Thematic points of emphasis include, but are not limited to civil-military relations, race, national identity, memory, gender, western expansion, American economic development, the growth of the federal government, Cold War culture, and citizenship.

Prerequisite: Graduate standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 62405 NATIVE WESTS 3 Credit Hours

(Slashed with HIST 82405) This course introduces students to the major analytical frameworks historians use to understand the diverse and complicated encounters between Euro-Americans and Native Americans in what is now the United States from first contact in the sixteenth century through the forced integration of Native nations into the United States after the Civil War. These encounters will be rooted in what was called the history of the "frontier," but is now more commonly described as "western" history or the study of "borderlands." Readings will emphasize sociocultural diversity among Indian societies, Indian agency, and Euro-American policy frameworks for Indian relations.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62415 RELIGION AND VIOLENCE IN THE MODERN WEST 3 Credit Hours

(Slashed with HIST 82415) This class explores the role of religion in conflict throughout the modern Atlantic World. It is commonly believed that Western societies underwent a process of secularization in the modern age. However, recent scholarship has proven that religious beliefs and behaviors have retained their power, popularity and causal agency. This course is designed to give graduate students an introduction to recent trends in the writing of the history of religion and violence. Religion will be taken as social, cultural and political history, rather than merely ecclesiastical or theological history. Violence will be taken as rhetorics and cultures of violence, as well as warfare and other acts of physical violence. We will start the class by discussion theories of religion, including "civil religion" as an alleged replacement faith in an era of secularity; sample current debates on the question of the religious causes of violence; then survey prominent monographs and articles that address this nexus historically.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62420 POLICE AND POLICED IN THE U.S. 19TH AND 20TH CENTURIES 3 Credit Hours

(Slashed with HIST 82420) This course traces (backwards, beginning with the most recent material) the historical processes through which policing took on its special character in this country beginning with slave patrols and the emergence of professional policing just before the Civil War.

To trace how police transformed their work through 2001, this course explores public opinion; popular culture; technological and bureaucratic changes; relationships between state and non-state violence; and police working conditions, training and self-understandings.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62475 MARXIST REVOLUTION IN VIETNAM 3 Credit Hours

(Slashed with HIST 82475) An examination of the violent upheavals influenced by Marxist thought that overturned traditional Vietnamese political, economic, and social structures over the course of the twentieth century. Course readings explore the chronology, context, and consequences of this revolution as well as the meaning of key concepts such as revolution and modernity.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62485 THE CIVIL WAR AS EXPERIENCED AND REMEMBERED 3 Credit Hours

(Slashed with HIST 82485) This course looks at the U.S. Civil War from the point of view of the men (and occasionally women) who marched, camped, fought, suffered and died during the four years of conflict and the decades after. After giving brief attention to the causes and political issues that led to war, the course focus is on the experiences and reactions of the people called upon to fight it. Rather than concentrate on the famous leaders and generals, students look at the officers and men, civilians and enslaved people and other common folks on both sides who were thrust into the conflict. Some attention is paid to the guerrilla war, the draft, the POW experience and the participation of African Americans and Native Americans. The second part of the course looks at memory, commemoration and the effects of the war on many of these groups in the decades leading into the 20th century.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 62500 REGIONAL IDENTITY AND OHIO HISTORY 3 Credit Hours

(Slashed with HIST 82500) As central as Ohio is in our national history, it is often underrepresented in standard historical narratives. This course explores the unfolding of more than two centuries of US history through the lens of the experience and understandings of residents of the State of Ohio. This changed perspective revisits many familiar themes – indigenous histories, immigration, labor conflict, the Great Depression – but moving our attention from the coast to the interior often places them in a revealing new light.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 62505 SOCIAL MOVEMENTS IN THE 19TH-20TH CENTURY RUST BELT 3 Credit Hours

(Slashed with HIST 82505) This course explores the national and global history of social movements in the nineteenth and twentieth centuries through the lens of the great lakes region. While many social movements have focussed on the coasts, in fact the "Rust Belt" played a disproportionate role in fostering and populating radical movements from abolitionism to temperance to labor unionism as well as repressive movements like the Ku Klux Klan. Alternating between classic historical monographs and regional studies, the class interrogates the meaning of the region's sympathy to radical movements and also suggests a reconception of these movements through a new geographic focus.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 69199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HIST 69299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: HIST 69199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HIST 69399 CAPSTONE IN HISTORY 3 Credit Hours

Capstone experience required of all MA students who are not writing a thesis. Students will develop an original research project and disseminate their work either through publication or presentation. Projects should integrate primary and secondary source research.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis, Project or Capstone

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HIST 69499 INTERDISCIPLINARY PROJECT IN HISTORY 3,6 Credit Hours

Research experience required for all students enrolled in the Master's in History for Secondary School Teachers concentration. Students will draw on their history coursework to complete a substantial piece of research applicable to the work of a practicing teacher. It can be pedagogical in nature, exploring strategies for teaching a particular subject, topic, or historical concept, or might be documentary in nature, such as historically informed teaching materials for a given subject, topic, or concept.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 3-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HIST 69896 INDIVIDUAL INVESTIGATION 2,3 Credit Hours

(Repeatable for credit)

Prerequisite: Graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 2-3 other

Grade Mode: Standard Letter-IP

HIST 69898 RESEARCH 1-15 Credit Hours

(Repeatable for credit)

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HIST 70092 PUBLIC HISTORY INTERNSHIP 3-6 Credit Hours

(Repeatable for credit) (Slashed with HIST 60092) Students serve an internship at an institution related to their emphasis in public history (e.g., historical society, museum, archives, historical preservation organization).

Prerequisite: Doctoral standing.

Schedule Type: Practical Experience

Contact Hours: 3-6 other

Grade Mode: Satisfactory/Unsatisfactory

HIST 71005 TEACHING WORLD HISTORY 3 Credit Hours

(Repeatable for a maximum of 9 credit hours) (Slashed with HIST 51005)

To prepare graduate students to teach world history at the university level. Special focus on integrating non-Western sources and points of view into the world history curriculum, preparation of world history syllabus and justification of selected readings and topics, mastery of on-line and in-class technologies to deliver world history materials.

Prerequisite: Doctoral standing in History.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 71006 ROMAN HISTORY 3 Credit Hours

(Cross-listed with CLAS 41006, CLAS 51006) (Slashed with HIST 41006 and HIST 51006) A survey of Roman history from its beginning to the fall of the Roman empire.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 71034 THE POLITICS OF DRESS IN MODERN EUROPE 3 Credit Hours

(Slashed with HIST 41034 and HIST 51034) An examination of the role clothing played in the history of Modern Europe that uses labor, social, gender, and religious history to understand how political and economic changes affected the daily lives of Europeans through a close examination of what they wore.

Prerequisite: Doctoral standing.

Schedule Type: Lecture, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 71060 COMPARATIVE FASCISM 3 Credit Hours

(Slashed with HIST 41060 and HIST 51060) Examination of the theories and practices of fascist movements and regimes in 20th-century Europe utilizing a variety of perspectives. Organized primarily thematically instead of geographically with readings and discussions based on historiographical and critical analyses.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 79095 SPECIAL TOPICS IN UNITED STATES HISTORY 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 49095 and HIST 59095)
Special course in the history of the United States, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of Classes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 79195 SPECIAL TOPICS: EUROPE SINCE 1500 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 49195 and HIST 59195)
Special course in the history of Europe since 1500, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of Classes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 79295 SPECIAL TOPICS IN GLOBAL HISTORY 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 49295 and HIST 59295)
Special course in the history of the ancient and medieval worlds, Africa, Asia, Latin America, and/or the Middle East, the subject and topic of which varies by term and instructor. Precise titles and descriptions to be inserted in the Schedule of Classes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 81002 HISTORIOGRAPHY 3 Credit Hours

Development of historical thinking. Students will read excerpts of famous historians and prepare papers.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 81070 WRITING SEMINAR IN HISTORY 3 Credit Hours

(Repeatable for credit) (Slashed with HIST 61070) Students will spend the semester conceptualizing, researching, and writing an article-length piece of original historical scholarship. Basic topics to be addressed include prospectus drafting, source identification, historiography, research methods, scholarly writing and revision, oral presentation, and professional critiquing. All students will be expected to supplement the guidance they receive from the seminar instructor with regular consultations with their departmental advisors.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 82000 READINGS IN EARLY MODERN HISTORY 3 Credit Hours

(Slashed with HIST 62000) This course offers an overview of the major themes and problems in the historical scholarship on early modern Europe and the early modern world. It will also explore different methodological and theoretical approaches drawing from foundational and recent scholarship in intellectual history, cultural history, social history, gender history and global history. Topics may include the Renaissance, Europe's Reformations, the Scientific Revolution and the Enlightenment, the French Revolution, court culture and the rise of absolutism, popular culture and everyday life, Europe's colonial and commercial expansion, the rise of capitalism, urbanization and the emergence of industrialization.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 82070 AMERICAN HISTORY FROM PRECONTACT NATIVE AMERICA THROUGH THE CIVIL WAR 3 Credit Hours

(Slashed with HIST 62070) This reading colloquium surveys the major aspects of American history from the arrival of Europeans in North America through the colonial period of American history and up to the Civil War and Reconstruction. Students are introduced to both historical content as well as the major historiographical currents in this segment of U.S. history. The aim of the course is to prepare students for comprehensive exams as well as to teach the first half of the U.S. survey course.

Prerequisite: Doctoral standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82071 AMERICAN HISTORY FROM THE CIVIL WAR TO THE PRESENT 3 Credit Hours

(Slashed with HIST 62071) This reading colloquium surveys major aspects of American history since the Civil War within the historiographical traditions through which they have been understood. The aim of the course is to prepare students for comprehensive exams as well as to teach the second half of the U.S. survey course.

Prerequisite: Doctoral standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82285 AMERICAN INTELLECTUAL AND CULTURAL HISTORY SINCE 1877 3 Credit Hours

(Slashed with HIST 82285) This colloquium will explore American Intellectual and Cultural History after 1877 by focusing on modernity. Our readings will discuss modernity's evolution from its late nineteenth-century roots to its dismantlement in the current epoch. We will hear, see, and read about this idea and how it is applied to various manifestations within our society, from material culture to advertising, music, and film.

Prerequisite: Doctoral standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 82300 MAJOR READINGS IN THE IMMIGRATION AND MIGRATION HISTORY OF THE UNITED STATES 3 Credit Hours

(Slashed with HIST 62300) This course focuses on immigration, or more accurately, "migration," as an important aspect of the history of the United States. It begins with an introduction to the interdisciplinary and transnational perspectives that define the study of global migration before focusing on the journeys taken by European, Latin American, Asian, and African immigrants to the United States, the often transnational lives led by these immigrants, and the communities they built within the United States. Alongside these concerns, the course will also explore how American society has historically received and reacted to immigrants.

Prerequisite: Doctoral Standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82325 MAJOR READINGS IN ASIAN AMERICAN HISTORY 3 Credit Hours

(Slashed with HIST 62325) This course provides a foundational understanding of the history of Asian Americans in the United States, with special emphasis placed upon those groups whose roots in the U.S. go back to the nineteenth century. Key subjects under scrutiny in this course include emigration/immigration; the creation and continuation of ethnic ghettos; segmented and international labor markets; diasporic and domestic political movements; racial stereotyping; global wars; and cultural changes.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82326 BETWEEN PLOWS AND SWORDS: U.S.-CHINA CULTURAL RELATIONS SINCE THE LATE 1700S 3 Credit Hours

(Slashed with HIST 62326) This seminar explores the beginning, evolution, transformation, and impact of U.S.-China cultural relations since the late 1700s. The United States and China have built a complex and dynamic relationship in the past two and a half centuries. Among the dimensions of that relationship, cultural relations were the oldest, deepest, and most consequential. While non-governmental organizations and individual Americans as well as Chinese played a crucial role in initiating and expanding cultural contacts between the two nations, government intervention and control were intensified over time, turning cultural relations into an instrument to achieve domestic as well as foreign policies goals. How did cultural contacts between the two nations begin? Who were the major players in the making of the Sino-American cultural relations? What were their major goals? How did the U.S. and the Chinese governments get involved in bilateral cultural contact and exchange? What impact did the expansion of cultural ties have on both societies? How were the U.S.-China cultural relations changed during the Cold War? What impact did the Cold War transformation have on cultural relations during and after rapprochement? By addressing these key questions, this course gives students a deeper understanding of the complexity and dynamics of U.S.-China relations.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 82345 IMAGES AND IDENTITIES IN US FOREIGN RELATIONS 3 Credit Hours

This graduate-level reading colloquium will explore the construction of cultural images and national identities in US foreign relations. Course readings and discussions will deal not only with the ways that Americans have "constructed" other nations but also with how other nations have "constructed" the United States. Themes to be explored include the role of intangibles such as culture in the making of policy; the accuracy or inaccuracy of cultural constructs; and the permanency or malleability of cultural ideas.

Prerequisite: Doctoral standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 82350 REVOLUTION AND REFORM: THE DEPRESSION ERA AND THE TRANSFORMATION OF AMERICAN SOCIETY 3 Credit Hours

(Slashed with HIST 62350) The Depression Era was a transformative time in the history of the U.S. state, but also of the U.S. people. This class engages with key readings in the historical discipline that approach this era with particular sensitivity to how regular Americans experienced, responded to, and shaped this crucial period.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 0 lecture, 0 lab, 3 other

Grade Mode: Standard Letter

HIST 82360 MARGINALITY AND POWER: HISTORY FROM BELOW 3 Credit Hours

(Slashed with HIST 62360) Who makes history? Every historian must grapple with this question and every generation of modern historians has answered this question in a different way. One response to this question is to write "history from below" and focus on the ways in which common people and historically marginalized groups have contributed to historical changes and developments in their societies and cultures. Throughout this course, we review some of the classic scholarship and new works that engage in the task of writing "history from below." Our goal is to understand how "history from below" has developed over the last few decades and to engage with the important questions about representation and agency that this approach to history raises. A variety of assignments serve to further our exploration of the topic and help us gain some practice not just in analyzing "histories from below," but also doing "history from below."

Prerequisite: Doctoral standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82385 HIGH-LIFE HISTORY: AFRICAN URBAN CULTURAL HISTORIES 3 Credit Hours

(Slashed with HIST 62385) This course explores the African city. Whether they live in the metropolises of Johannesburg, Tauba, Nairobi, or Lagos, urban Africans have built diverse landscapes and lives. This class examines those everyday lives, in a cross-cultural exploration of the history of African urban spaces.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82400 THE LENS OF WAR: AMERICAN HISTORY THROUGH THE STUDY OF THE MILITARY 3 Credit Hours

(Slashed with HIST 62400) A survey of the impact conflict and the peacetime military have had on both the history and historiography of colonial America and the United States. Thematic points of emphasis include, but are not limited to civil-military relations, race, national identity, memory, gender, western expansion, American economic development, the growth of the federal government, Cold War culture, and citizenship.

Prerequisite: Doctoral standing.

Schedule Type: Colloquium, Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 82405 NATIVE WESTS 3 Credit Hours

(Slashed with HIST 62405) This course introduces students to the major analytical frameworks historians use to understand the diverse and complicated encounters between Euro-Americans and Native Americans in what is now the United States from first contact in the sixteenth century through the forced integration of Native nations into the United States after the Civil War. These encounters will be rooted in what was called the history of the "frontier," but is now more commonly described as "western" history or the study of "borderlands." Readings will emphasize sociocultural diversity among Indian societies, Indian agency, and Euro-American policy frameworks for Indian relations.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82415 RELIGION AND VIOLENCE IN THE MODERN WEST 3 Credit Hours

(Slashed with HIST 62415) This class explores the role of religion in conflict throughout the modern Atlantic World. It is commonly believed that Western societies underwent a process of secularization in the modern age. However, recent scholarship has proven that religious beliefs and behaviors have retained their power, popularity and causal agency. This course is designed to give graduate students an introduction to recent trends in the writing of the history of religion and violence. Religion will be taken as social, cultural and political history, rather than merely ecclesiastical or theological history. Violence will be taken as rhetorics and cultures of violence, as well as warfare and other acts of physical violence. We will start the class by discussion theories of religion, including "civil religion" as an alleged replacement faith in an era of secularity; sample current debates on the question of the religious causes of violence; then survey prominent monographs and articles that address this nexus historically.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82420 POLICE AND POLICED IN THE U.S. 19TH AND 20TH CENTURIES 3 Credit Hours

(Slashed with HIST 62420) This course traces (backwards, beginning with the most recent material) the historical processes through which policing took on its special character in this country beginning with slave patrols and the emergence of professional policing just before the Civil War.

To trace how police transformed their work through 2001, this course explores public opinion; popular culture; technological and bureaucratic changes; relationships between state and non-state violence; and police working conditions, training and self-understandings.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82475 MARXIST REVOLUTION IN VIETNAM 3 Credit Hours

(Slashed with HIST 62475) An examination of the violent upheavals influenced by Marxist thought that overturned traditional Vietnamese political, economic, and social structures over the course of the twentieth century. Course readings explore the chronology, context, and consequences of this revolution as well as the meaning of key concepts such as revolution and modernity.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82485 THE CIVIL WAR AS EXPERIENCED AND REMEMBERED 3 Credit Hours

(Slashed with HIST 62485) This course looks at the U.S. Civil War from the point of view of the men (and occasionally women) who marched, camped, fought, suffered and died during the four years of conflict and the decades after. After giving brief attention to the causes and political issues that led to war, the course focus is on the experiences and reactions of the people called upon to fight it. Rather than concentrate on the famous leaders and generals, students look at the officers and men, civilians and enslaved people and other common folks on both sides who were thrust into the conflict. Some attention is paid to the guerrilla war, the draft, the POW experience and the participation of African Americans and Native Americans. The second part of the course looks at memory, commemoration and the effects of the war on many of these groups in the decades leading into the 20th century.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HIST 82500 REGIONAL IDENTITY AND OHIO HISTORY 3 Credit Hours

(Slashed with HIST 62500) As central as Ohio is in our national history, it is often underrepresented in standard historical narratives. This course explores the unfolding of more than two centuries of US history through the lens of the experience and understandings of residents of the State of Ohio. This changed perspective revisits many familiar themes – indigenous histories, immigration, labor conflict, the Great Depression – but moving our attention from the coast to the interior often places them in a revealing new light.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 82505 SOCIAL MOVEMENTS IN THE 19TH-20TH CENTURY RUST BELT 3 Credit Hours

(Slashed with HIST 62505) This course explores the national and global history of social movements in the nineteenth and twentieth centuries through the lens of the great lakes region. While many social movements have focussed on the coasts, in fact the "Rust Belt" played a disproportionate role in fostering and populating radical movements from abolitionism to temperance to labor unionism as well as repressive movements like the Ku Klux Klan. Alternating between classic historical monographs and regional studies, the class interrogates the meaning of the region's sympathy to radical movements and also suggests a reconception of these movements through a new geographic focus.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

HIST 89199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HIST 89299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: HIST 89199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HIST 89896 INDIVIDUAL INVESTIGATION 2,3 Credit Hours

(Repeatable for credit)

Prerequisite: Doctoral standing.

Schedule Type: Individual Investigation

Contact Hours: 2-3 other

Grade Mode: Standard Letter-IP

HIST 89898 RESEARCH 1-15 Credit Hours

(Repeatable for credit)

Prerequisite: Doctoral Standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Department of Mathematical Sciences

Mathematics (MATH)

MATH 00020 PRE-ALGEBRA 2 Credit Hours

Course covers properties of whole numbers, fractions, decimals, percents, signed numbers and order of operations. Mental math and elementary algebraic thinking skills are emphasized. Use of calculators is not allowed. Course does not count toward graduation.

Prerequisite: 0-9 ALEKS math score.

Schedule Type: Emporium

Contact Hours: 2 other

Grade Mode: Standard Letter

MATH 00021 BASIC ALGEBRA I 2 Credit Hours

Course includes operations on integers, fractions, decimals and percents, and properties of real numbers. Introduction to variables, first degree equations and problem-solving with formulas. Equations and inequalities in one variable, linear equations, rate of change and slope, graphing in the cartesian plane. Course does not count toward graduation.

Prerequisite: Minimum 10 ALEKS math score.

Pre/corequisite: MATH 00020 with a minimum C grade.

Schedule Type: Emporium

Contact Hours: 2 other

Grade Mode: Standard Letter

MATH 00022 BASIC ALGEBRA II 2 Credit Hours

Introduction to functions, systems of linear equations, exponents, polynomial operations, scientific notation. Factoring polynomials, solving quadratics by factoring, radicals and rational exponents. Course does not count toward graduation.

Prerequisite: Minimum 25 ALEKS math score; or MATH 00021 with a minimum C grade.

Schedule Type: Emporium

Contact Hours: 2 other

Grade Mode: Standard Letter

MATH 00095 SPECIAL TOPICS IN MATHEMATICS 1-4 Credit Hours

(Repeatable for credit) Topics in mathematics not covered in regular courses. Offered when opportunities and resources permit; the topic is announced when the course is scheduled. Course does not count toward graduation.

Prerequisite: None.

Schedule Type: Emporium

Contact Hours: 1-4 other

Grade Mode: Standard Letter

MATH 10038 STATISTICAL THINKING 2 Credit Hours

This course is the first of a two-part sequence and provides a pathway for successful completion of MATH 10041 during the subsequent semester. Topics include graphical displays of data, measures of center and variation, linear regression and basic probability. In the context of these statistical concepts, students review basic arithmetic and algebra skills needed to succeed in MATH 10041, including computations and applications of percents and decimals, fractions, proportions, linear equations, areas of geometric figures, slope and intercepts. The development of study strategies, problem-solving skills and reading skills are interwoven throughout the semester. This course is different than basic algebra courses and MATH 10041 because it develops students' fluency within the context of statistical situations and does not cover all topics required in the TMM-011, nor does it cover them in depth. Emphasis is on skill development and foreshadowing statistical concepts through intuitive and informal development.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MATH 10040 INTRODUCTORY STATISTICS PLUS (KMCR) 5 Credit Hours

(Equivalent to MATH 10041) An introduction to statistical thinking and statistical methods with a review of basic algebra. Emphasis is on statistical literacy, conceptual understanding and active learning in the classroom. This course also provides just-in-time remediation to help students achieve the same learning outcomes as MATH 10041. No credit earned for this course if a student already earned credit for MATH 10041. Students who do not meet the prerequisites but do have a minimum of 3.0 high school GPA should contact the department for approval to register.

Prerequisite: ALEKS Math score between 25 and 34; or MATH 00021 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, TAG Mathematics, Transfer Module Mathematics

MATH 10041 INTRODUCTORY STATISTICS (KMCR) 4 Credit Hours

(Equivalent to MATH 10040) An introduction to statistical thinking and statistical methods. Emphasis is on statistical literacy, conceptual understanding and active learning in the classroom. No credit earned for this course if a student already earned credit for MATH 10040. Students who do not meet the prerequisites but do have a minimum of 3.5 high school GPA should contact the department for approval to register.

Prerequisite: Minimum 22 ACT math score; or minimum 530 SAT math score; or minimum 35 ALEKS math score; or MATH 00022 or MATH 10038 with minimum C grade; or MATH 10050 or any higher-level Mathematics (MATH) course.

Schedule Type: Emporium

Contact Hours: 4 other

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 10050 QUANTITATIVE REASONING PLUS (KMCR) 5 Credit Hours

(Equivalent to MATH 10051) In the broadest sense, mathematics should provide students the needed quantitative tools, logical reasoning and problem-solving skills, as well as a sense that quantitative modeling can be used to describe and understand developments in many areas of daily living. Since critical thinking is the course's primary objective and outcome - in each area of concentration (numeracy, mathematical modeling, probability and statistics) - students need to read and glean information from the problem situation, convert the information into a usable form, perform any needed routine calculations, make or draw a conclusion and communicate the result via explanation using quantitative reasoning by writing coherent statements and paragraphs. This course also provides just-in-time remediation to help students achieve the same learning outcomes as MATH 10051. Students who do not meet the prerequisites but do have a minimum of 3.0 high school GPA should contact the department for approval to register.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, TAG Mathematics, Transfer Module Mathematics

MATH 10051 QUANTITATIVE REASONING (KMCR) 4 Credit Hours

(Equivalent to MATH 10050) In the broadest sense, mathematics should provide students the needed quantitative tools, logical reasoning and problem solving skills, and a sense that quantitative modeling can be used to describe and understand developments in many areas of daily living. Since critical thinking is the primary objective and outcome for this course, in each area of concentration (numeracy, mathematical modeling and probability and statistics), students will read and glean information from the problem situation, convert the information into a usable form, perform any needed routine calculations, make or draw a conclusion, and then communicate the result via explanation using quantitative reasoning by writing coherent statements and paragraphs. Students who do not meet the prerequisites but do have a minimum of 3.5 high school GPA should contact the department for approval to register.

Prerequisite: Minimum 22 ACT math score; or minimum 530 SAT math score; or minimum 35 ALEKS Math score; or MATH 00022 with a minimum C grade; or any higher level MATH course.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 10475 ALGEBRAIC THINKING 2 Credit Hours

This course includes development of problem-solving skills, including recognizing quantities in real-world scenarios, noting dependency relationships of these quantities, creating accurate diagrams of the varying quantities in scenarios, precisely describing variables and quantities, identifying domains in context and representing the varying relationship of two quantities on a coordinate plane. Algebra skills reviewed include factoring, solving linear and non-linear equations and simplifying rational expressions and expressions with integer and rational exponents. The modeling component includes recognizing linear vs. exponential change and writing function models for linear and exponential growth and decay.

Prerequisite: MATH 00022 with a minimum C grade; or minimum 22 ACT math score; or minimum 530 SAT math score; or ALEKS math score between 35-44.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

MATH 10675 ALGEBRA FOR CALCULUS BOOST (KMCR) 5 Credit Hours

(Equivalent to MATH 10775 and MATH 11010) Course includes an extensive and rich immersion into the structure of functions. Routine analysis includes discussion of domain, range, zeros, general function behavior (increasing, decreasing, extrema, etc.). Operations with functions, including addition, subtraction, multiplication, division, composition and inversion. Functions are studied as a tool to analyze rates of change for real-world scenarios. The emphasis is on linear, polynomial, exponential and rational functions, with an extensive problem-solving component. A two-week review of intermediate algebra skills is included in the course, as is extra time studying quadratic functions, absolute value functions, systems of equations and extended time on logarithms. Students who do not meet the prerequisites but have a minimum 3.5 high school GPA should contact the department for approval to register.

Prerequisite: MATH 00022 with a minimum C grade; or minimum 22 ACT math score; or minimum 530 SAT math score; or ALEKS math score between 35 and 44.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 10771 BASIC MATHEMATICAL CONCEPTS I PLUS (KMCR) 5 Credit Hours

(Equivalent to MATH 14001) Course covers the development of the real-number system and its sub-systems, open sentences, numeration systems, modular arithmetic and some number theory concepts. Additional concepts covered include place value, logic, equality, properties of the real numbers, multiple representations of operations with numbers, and problem solving. Students who do not meet the prerequisites but do have a minimum of 3.5 high school GPA should contact the department for approval to register.

Prerequisite: Minimum 35 ALEKS math score; or minimum 22 ACT math score; or minimum 530 SAT math score; or MATH 00022 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning

MATH 10772 MODELING ALGEBRA PLUS (KMCR) 5 Credit Hours

(Equivalent to MATH 11009) Study of algebra arising in the context of real-world applications, including linear, polynomial, exponential and logarithmic models. Includes a review of factoring and functions. Course is intended for students not planning to take calculus. No credit earned toward a degree for this course if student already earned credit for MATH 11010. Students who do not meet the prerequisites but do have a minimum of 3.5 high school GPA should contact the department for approval to register.

Prerequisite: Minimum 35 ALEKS math score; or minimum 22 ACT math score; or minimum 530 SAT math score; or MATH 00022 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning

MATH 10775 ALGEBRA FOR CALCULUS PLUS (KMCR) 4 Credit Hours

(Equivalent to MATH 10675 and MATH 11010) Course includes an extensive and rich immersion into the structure of functions. Routine analysis includes discussion of domain, range, zeros, general function behavior (increasing, decreasing, extrema, etc.). Operations with functions, including addition, subtraction, multiplication, division, composition and inversion. Functions are studied as a tool to analyze rates of change for real-world scenarios. The emphasis is on linear, polynomial, exponential and rational functions, with an extensive problem-solving component. Skill review is included throughout the course, as is time studying quadratic functions, absolute value functions, systems of equations and extended time with logarithms.

Prerequisite: MATH 10475 or MATH 10772 with a minimum C grade; or ALEKS math score between 45 and 54.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 11008 EXPLORATIONS IN MODERN MATHEMATICS (KMCR) 3 Credit Hours

Topics from various branches of mathematics will be chosen to introduce the student to the wide varieties of ways in which mathematics affects everyday life. Students who do not meet the prerequisites but do have a minimum of 3.5 high school GPA should contact the department for approval to register.

Prerequisite: Minimum 35 ALEKS math score; or minimum 22 ACT math score; or MATH 00022 or any higher MATH course with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning

MATH 11009 MODELING ALGEBRA (KMCR) 4 Credit Hours

(Equivalent to MATH 10772) Study of algebra arising in the context of real-world applications, including linear, polynomial, exponential and logarithmic models. Intended for students not planning to take calculus. No credit earned toward a degree for this course if the student already earned credit for MATH 11010.

Prerequisite: Minimum 45 ALEKS math score.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning

MATH 11010 ALGEBRA FOR CALCULUS (KMCR) 3 Credit Hours

(Equivalent to MATH 10675 and MATH 10775) Course includes an extensive and rich immersion into the structure of functions. Routine analysis includes discussion of domain, range, zeros, general function behavior (increasing, decreasing, extrema, etc.). Operations with functions, including addition, subtraction, multiplication, division, composition and inversion. Functions are studied as a tool to analyze rates of change for real-world scenarios. The emphasis is on linear, polynomial, exponential and rational functions, with an extensive problem-solving component.

Prerequisite: MATH 10772 or MATH 11009 with a minimum B grade; or minimum 55 ALEKS math score.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 11012 INTUITIVE CALCULUS (KMCR) 3 Credit Hours

Course is designed to give an overview of differential and integral calculus to business and life-science majors. Course does not include trigonometric functions. No credit earned toward a degree for this course if the student already earned credit for MATH 12002.

Prerequisite: Minimum 67 ALEKS math score; or minimum C grade in MATH 10675 or MATH 10775 or MATH 11010.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 11022 TRIGONOMETRY (KMCR) 3 Credit Hours

Solution of triangles, trigonometric equations and identities.

Prerequisite: Minimum 67 ALEKS math score; or minimum C grade in MATH 10675 or MATH 10775 or MATH 11010.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 12002 ANALYTIC GEOMETRY AND CALCULUS I (KMCR) 5 Credit Hours

Concepts of limit, continuity and derivative, and the indefinite and definite integral for functions of one real variable. Maximization, related rates, fundamental theorem of calculus. No credit earned toward a degree for this course if the student already earned credit for MATH 12011 and MATH 12012.

Prerequisite: Minimum 78 ALEKS math score; or MATH 11022 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 12003 ANALYTIC GEOMETRY AND CALCULUS II 5 Credit Hours

Continued study of techniques and applications of integration; trigonometric, logarithmic and exponential functions; polar coordinates; vectors; parametric equations; sequences and series.

Prerequisite: MATH 12002 or MATH 12012 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

Attributes: Transfer Module Mathematics

MATH 12011 CALCULUS WITH PRECALCULUS I (KMCR) 3 Credit Hours

Introduction to differential calculus with a review of algebra and trigonometry. Includes exponents, factoring, functions, graphs, tangent lines, limits, continuity, derivatives and related rates. No credit earned toward a degree for this course if the student already earned credit for MATH 12002.

Prerequisite: Minimum 67 ALEKS math score.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 12012 CALCULUS WITH PRECALCULUS II (KMCR) 3 Credit Hours

Development of integral calculus and continued study of differential calculus. Includes curve sketching optimization fundamental theorem of calculus areas between curves, exponential and logarithmic functions. No credit earned toward a degree for this course if student already earned credit for MATH 12002.

Prerequisite: MATH 12011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 12013 BRIEF CALCULUS II 3 Credit Hours

This is a condensed version of MATH 12003 to meet the needs of majors that do not require the full force of MATH 12003. The course starts with integration by parts, approximating integrals, and applications of integrals. It follows with a brief introduction to series, parametric equations and polar coordinates, and finishes with vectors and geometry of space. No credit earned toward a degree for this course if student already earned credit for MATH 12003.

Prerequisite: Minimum C grade in MATH 12002 or MATH 12012 or MATH 12021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 12021 CALCULUS FOR LIFE SCIENCES 4 Credit Hours

Differential and integral calculus using examples and problems in life sciences.

Prerequisite: Minimum 78 ALEKS math score; or MATH 11022 or MATH 12011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 12022 PROBABILITY AND STATISTICS FOR LIFE SCIENCES 3 Credit Hours

Probability and statistics with applications in medical and biological sciences.

Prerequisite: Minimum C grade in MATH 12002 or MATH 12012 or MATH 12021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 14001 BASIC MATHEMATICAL CONCEPTS I (KMCR) 4 Credit Hours

(Equivalent to MATH 10771) Development of the real number system and its sub-systems, open sentences, numeration systems, modular arithmetic and some number theory concepts.

Prerequisite: MATH 10675 or any higher level MATH course (except MATH 11008) with a minimum C grade; or minimum 45 ALEKS math score.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 14002 BASIC MATHEMATICAL CONCEPTS II (KMCR) 4 Credit Hours

Basic concepts of probability, statistics and geometry.

Prerequisite: MATH 10771 or MATH 14001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, Transfer Module Mathematics

MATH 19099 FIELD EXPERIENCE IN MATHEMATICS INSTRUCTION (ELR) 1 Credit Hour

(Repeatable for credit) Learning through tutoring. A supervised lab experience in providing explanations of mathematical concepts.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

MATH 20011 DECISION-MAKING UNDER UNCERTAINTY 3 Credit Hours

An introductory course on applied statistics. The course provides a hands-on approach to understanding, quantification and decision-making under various forms of uncertainty. The main topics include visualization of uncertainty, probabilistic quantification of uncertainty, Bayesian and non-Bayesian ways of decision-making under uncertainty. Class activities incorporate active learning elements, including in-classroom computation with professional-grade software for statistical analysis and simulation.

Prerequisite: MATH 12002 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 20095 SPECIAL TOPICS IN MATHEMATICS 1-5 Credit Hours
(Repeatable for credit) Various special courses will be announced in the schedule of classes under this course number with different section numbers.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter

MATH 21001 LINEAR ALGEBRA 3 Credit Hours

Systems of linear equations and the associated matrix operations, linear transformations, vector spaces, bases, eigenvectors.

Prerequisite: Minimum C grade in MATH 11012 or MATH 12002 or MATH 12012 or MATH 12021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Mathematics

MATH 21002 APPLIED LINEAR ALGEBRA 3 Credit Hours

This is an introductory course in linear algebra. The goal of the course is to teach the math fundamentals of linear algebra in a way that focuses more on applications. The topics include systems of linear equations, matrix operations, vector spaces, eigenvalues and eigenvectors, singular value decompositions, and their applications.

Prerequisite: Minimum C grades in MATH 12002 or MATH 11012 or MATH 12012 or MATH 12021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 21092 COMPUTER PRACTICUM (ELR) 2 Credit Hours

(Repeatable for credit) Supervised work experience in a computer installation.

Prerequisite: None.

Schedule Type: Practical Experience

Contact Hours: 2 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

MATH 22005 ANALYTIC GEOMETRY AND CALCULUS III 4 Credit Hours

Study of functions of several variables, including partial derivatives and multiple integrals.

Prerequisite: MATH 12003 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Mathematics

MATH 23022 DISCRETE STRUCTURES FOR COMPUTER SCIENCE 3 Credit Hours

(Cross-listed with CS 23022) Discrete structures for computer scientists with a focus on: mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking, applications and modeling. Specific topics include propositional and predicate logic and logical modeling using Boolean algebra and logical gates, information representation using binary system, sets, functions, relations, logical argumentation, proof techniques, recursion and recursive modeling, sequences and summation, arithmetic and geometric progressions, algorithms, iterative vs recursive algorithms, mathematical and structural induction, recursive structures, counting, permutation and combination, binomial expansion, matrices and matrix-operations, graphs and trees and their traversal, probability and Bayes' theorem, finite state machines, their modeling and applications, Regular grammar, basics of number theory, modeling computation and Turing machines, decidability and halting problem.

Prerequisite: Minimum C grade in MATH 11009 or MATH 11010 or MATH 11022, or ALEKS score of 78.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 30011 BASIC PROBABILITY AND STATISTICS 3 Credit Hours

Analysis and representation of data. Controlled experiments and observations. Measurement errors. Correlation and regression. Sampling. Probability models and tests of models. Inference. This course cannot be used to meet the mathematics requirements for a BA in Mathematics or a BS in Applied Mathematics or Mathematics.

Prerequisite: Minimum 67 ALEKS math score; or minimum C grade in MATH 10675 or MATH 10775 or MATH 11010; or any course MATH 11012 to MATH 12022; or any course MATH 20000 to MATH 49999.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 30055 MATHEMATICAL THEORY OF INTEREST 3 Credit Hours

A calculus-based introduction to the mathematics of finance. Limited to deterministic analysis of interest rates annuities bonds and immunization. Emphasizes the mathematical theory of the subject matter.

Prerequisite: MATH 12003 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 31011 PROOFS IN DISCRETE MATHEMATICS 3 Credit Hours

The study of discrete mathematical structures including sets, functions and relations. The course includes an introduction to logical thinking with an emphasis on proof techniques. The course may include topics in number theory, graph theory and combinatoric.

Prerequisite: MATH 12002 with a minimum C grade.

Pre/corequisite: Minimum C grade in the following courses: MATH 21001 or MATH 21002 or MATH 32051.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 32044 ORDINARY DIFFERENTIAL EQUATIONS 3 Credit Hours

An introduction to ordinary differential equations and applications.

Topics include solution methods, series solutions, singular points, Laplace transforms and linear systems. Applications include population dynamics, forced oscillations and resonance.

Prerequisite: Minimum C grade in the following courses: MATH 12003 or MATH 12013; and MATH 21001 or MATH 21002.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Mathematics

MATH 32051 MATHEMATICAL METHODS IN THE PHYSICAL SCIENCES I 4 Credit Hours

Mathematics background beyond calculus I and II for upper-division courses in the physical sciences. Topics include complex numbers and arithmetic, linear algebra, partial differentiation and multiple integrals.

Prerequisite: MATH 12003 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 32052 MATHEMATICAL METHODS IN THE PHYSICAL SCIENCES II 4 Credit Hours

Additional mathematics background for upper-division courses in the physical sciences. Topics include vector analysis, Fourier series and transforms ordinary differential equations and partial differential equations.

Prerequisite: MATH 32051 with a minimum C grade; or MATH 21001 and MATH 22005 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 34001 FUNDAMENTAL CONCEPTS OF ALGEBRA 3 Credit Hours

Professionalized course in algebra for prospective secondary teachers. Postulational development of number system of algebra; other systems, related topics, applications. This course cannot be used to meet the mathematical requirements for a BA in Mathematics or a BS in either Applied Mathematics or Mathematics. No credit earned toward a degree for this course if a student already earned credit for MATH 41001.

Prerequisite: MATH 12002 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 34002 FUNDAMENTAL CONCEPTS OF GEOMETRY 3 Credit Hours

Professionalized course in geometry for secondary school teachers. Origin and development of the geometry of Euclid with modern refinements, topics, approaches. Other geometries, applications. This cannot be used to meet the mathematics requirement for a BA in Mathematics or a BS in either Applied Mathematics or Mathematics.

Prerequisite: MATH 12002 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 38001 HANDS-ON MATHEMATICS 3 Credit Hours

Students take turns learning a topic and then teach that topic to the class. No text is required; the students use web resources and materials supplied by the instructor. Many of the topics have a hands-on component. Some examples are two- and three-dimensional tiling problems, the Towers of Hanoi and other problems with an inductive solution, and 'magic tricks' with a basis in algebra, parity or modular arithmetic.

Prerequisite: MATH 12003 with a minimum C grade.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 40011 PROBABILITY THEORY AND APPLICATIONS 3 Credit Hours

(Slashed with MATH 50011) Permutations and combinations, discrete and continuous distributions, random variables, conditional probabilities, Baye's formula, mathematical expectation, law of large numbers, normal approximations, basic limit theorems.

Prerequisite: MATH 22005 or MATH 32051 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 40012 THEORY OF STATISTICS (WIC) 3 Credit Hours

(Slashed with MATH 50012) Sample spaces, continuous distributions, sampling distributions, point and interval estimation, hypothesis testing, types of error, level and power of tests, sequential and nonparametric methods.

Prerequisite: MATH 40011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

MATH 40015 APPLIED STATISTICS 3 Credit Hours

(Slashed with MATH 50015) Course is based on classical linear regression techniques with an emphasis on real data using the principles of sound data analysis. Close attention is given to issues of interpretation, diagnostics, outliers and influential points, goodness of fit and model selection. Topics include simple and multiple linear regression, transformation and modifications of covariates and responses, design matrices, variable selection and logistic regression. Students with statistics courses from other disciplines should consult with the Department of Mathematical Sciences for possible prerequisite overrides.

Prerequisite: MATH 21001 or MATH 21002 with a minimum C grade; and MATH 12022 with a minimum B grade or MATH 20011 with a minimum C grade or MATH 30011 with a minimum B grade or MATH 40012 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 40024 COMPUTATIONAL STATISTICS 3 Credit Hours

(Slashed with MATH 50024) This course is about the use of computational tools to manage, explore, summarize and visualize data, as well as the computational underpinnings of fitting statistical models. It uses mostly the statistical computation language R, but also other languages like Python and Matlab. It also covers: simulation and random number generation, computationally intensive methods like the bootstrap and permutation tests, Expectation-Maximization and related algorithms and dimensionality reduction via matrix decomposition. Students with statistics courses from other disciplines should consult with the Department of Mathematical Sciences for possible prerequisite overrides.

Prerequisite: MATH 21001 or MATH 21002 with a minimum C grade; and MATH 12022 with a minimum B grade or MATH 20011 with a minimum C grade or MATH 30011 with a minimum B grade or MATH 40012 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 40028 STATISTICAL LEARNING 3 Credit Hours

(Slashed with MATH 50028) This course is about the statistical foundations of modern machine learning techniques. The main focus is classification and prediction using regression-based, tree-based and kernel-based methods. Specific methods include logistic regression, classification and regression trees, random forests and support vector machines. The course also includes an introduction to unsupervised and semi-supervised learning.

Prerequisite: MATH 40015 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 40051 TOPICS IN PROBABILITY THEORY AND STOCHASTIC PROCESSES 3 Credit Hours

(Slashed with MATH 50051) Topics from conditional expectations, Markov chains, Markov processes, Brownian motion and Martingales and their applications to stochastic calculus.

Prerequisite: MATH 40011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 40055 ACTUARIAL MATHEMATICS I (ELR) (WIC) 4 Credit Hours

(Slashed with MATH 50055) Topics from survival models, stochastic analysis of annuities and life insurance and casualty models.

Prerequisite: MATH 30055 and MATH 40011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

MATH 40056 ACTUARIAL MATHEMATICS II 4 Credit Hours

(Slashed with MATH 50056) Benefit premiums, benefit reserves and their analysis, decrement models, joint survivorship, risk models.

Prerequisite: MATH 40055 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 40059 STOCHASTIC ACTUARIAL MODELS 3 Credit Hours

(Slashed with MATH 50059) Topics from investment risk, mean variance analysis, CAPM, financial derivatives, binomial pricing model, stochastic calculus, Black-Scholes pricing model and Greeks.

Prerequisite: MATH 40011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 40093 VARIABLE TITLE WORKSHOP IN MATHEMATICS 1-6 Credit Hours

(Repeatable for credit) Studies special topics in mathematics. Not acceptable for credit toward a major or minor in math without approval of student's adviser.

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

MATH 41001 MODERN ALGEBRA I (ELR) (WIC) 3 Credit Hours

(Slashed with MATH 51001) Basic properties of groups, subgroups, factor groups. Basic properties of rings, integral domains and homomorphisms.

Prerequisite: MATH 22005 or MATH 32051 with a minimum C grade; and MATH 31011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

MATH 41002 MODERN ALGEBRA II (ELR) (WIC) 3 Credit Hours

(Slashed with MATH 51002) A continuation of MATH 41001, emphasizing properties of rings, their ideals, polynomial ring extensions, fields, finite degree extensions, roots of polynomials, constructability.

Prerequisite: Minimum C grade in MATH 41001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

MATH 41021 THEORY OF MATRICES 3 Credit Hours

(Slashed with MATH 51021) A rigorous study of the topics introduced in matrix algebra. Topics included are vector space preliminaries, canonical forms of matrices, diagonalizability criteria.

Prerequisite: MATH 21001 and MATH 22005 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 41038 INTERMEDIATE LOGIC 3 Credit Hours

(Cross-listed with CS 41038 and PHIL 41038)(Slashed with MATH 51038 and PHIL 51038) A detailed, systematic study of symbolic logic for philosophy majors, mathematics majors, computer science majors and anyone else interested in advanced study in logic. The aim of the course is twofold: (1) to develop a facility in understanding and using symbolic logic for various purposes, and (2) to understand and appreciate symbolic logic as an area of study in itself. Topics include the distinction between syntactic, object-level proofs and semantic, meta-level proofs; the distinction between axiomatic systems and natural deduction systems of object-level proofs; various systems of modal logic; and some non-classical logics.

Prerequisite: Actuarial Mathematics major or Applied Mathematics major or Applied Mathematics minor or Applied Statistics minor or Mathematics major or Mathematics minor; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42001 ANALYSIS I (ELR) (WIC) 3 Credit Hours

(Slashed with MATH 52001) Topics include basic structure of the real numbers, Cauchy sequences, convergence, completeness of the real numbers, continuity, differentiation and Riemann integration.

Prerequisite: MATH 22005 or MATH 32051 with a minimum C grade; and MATH 31011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

MATH 42002 ANALYSIS II (ELR) (WIC) 3 Credit Hours

(Slashed with MATH 52002) Topics include further development of integration theory, infinite series, uniform convergence, several variable calculus and metric spaces.

Prerequisite: MATH 42001 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

MATH 42011 MATHEMATICAL OPTIMIZATION 3 Credit Hours

(Slashed with MATH 52011) Analytic and numerical techniques for location of extreme points of functions and calculus of variations. Both constrained and unconstrained problems are considered.

Prerequisite: Minimum C grade in MATH 21001 and MATH 22005 or MATH 32051.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42021 GRAPH THEORY AND COMBINATORICS 3 Credit Hours

(Slashed with MATH 52021) Fundamentals and applications of combinatorial mathematics. Topics include traversability, colorability, networks, inclusion and exclusion, matching and designs.

Prerequisite: Minimum C grade in MATH 12003 or MATH 12013; and MATH 21001 or MATH 21002.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42024 NUMBERS AND GAMES 3 Credit Hours

(Slashed with MATH 52024) The study of partisan and impartial combinatorial games, games as numbers and Grundy-Sprague theory.

Prerequisite: Minimum C grade in MATH 21001 or MATH 21002.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42031 MATHEMATICAL MODELS AND DYNAMICAL SYSTEMS 3 Credit Hours

(Slashed with MATH 52031) Formulation and analysis of mathematical models for a variety of phenomena. Mathematical methods from optimization, dynamical systems and probability are developed and applied. Modern software tools are utilized.

Prerequisite: Minimum C grade in the following courses: MATH 22005 and MATH 32044; or MATH 32052.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42039 MODELING PROJECTS (ELR) (WIC) 3 Credit Hours

(Slashed with MATH 52039) Individual and small-group projects concerned with the formulation and analysis of mathematical models in a variety of areas. Written and oral reports are required.

Prerequisite: MATH 42031 with a minimum C grade.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement, Writing Intensive Course

MATH 42041 ADVANCED CALCULUS 3 Credit Hours

(Slashed with MATH 52041) The calculus and applications of scalar and vector functions of several variables. Vector differential and integral calculus. Applications to field theories, electricity and magnetism and fluid flow.

Prerequisite: MATH 21001 with a minimum C grade; and MATH 22005 or MATH 32051.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42045 PARTIAL DIFFERENTIAL EQUATIONS 3 Credit Hours

(Slashed with MATH 52045) An introduction to Fourier series, Fourier transforms and partial differential equations. Wave, heat and potential equations of mathematical physics. Additional topics include Green's functions and the method of characteristics for wave equations.

Prerequisite: Minimum C grade in the following courses: MATH 22005 and MATH 32044; or MATH 32052.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42048 COMPLEX VARIABLES 3 Credit Hours

(Slashed with MATH 52048) Algebra of complex numbers, analytic functions, mappings, Cauchy integral theory, residue theory and applications.

Prerequisite: MATH 22005 or MATH 32051 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42201 NUMERICAL LINEAR ALGEBRA 3 Credit Hours

(Cross-listed with CS 42201)(Slashed with CS 52201 and MATH 52201) Fundamentals of numerical linear algebra; solving linear systems; QR factorization and least squares; iterative methods for eigenvalue problems.

Prerequisite: Minimum C grade in the following courses: CS 10062 or CS 13001 or (CS 13011 and CS 13012) or (ENGR 15300 and ENGR 15301) or ENGR 15302; and MATH 12003 or MATH 12013; and MATH 21001 or MATH 21002 or MATH 32051.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 42202 NUMERICAL APPROXIMATION AND OPTIMIZATION 3 Credit Hours

(Cross-listed with CS 42202)(Slashed with CS 52202 and MATH 52202) This course introduces numerical methods for solving nonlinear equations, optimizing functions, performing interpolation, computing differentiation and integration and solving differential equations.

Prerequisite: Minimum C grade in the following courses: CS 10062 or CS 13001 or (CS 13011 and CS 13012) or (ENGR 15300 and ENGR 15301) or ENGR 15302; and (MATH 22005 and MATH 32044) or MATH 32052.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 45011 DIFFERENTIAL GEOMETRY 3 Credit Hours

(Slashed with MATH 55011) Analytic and metric differential geometry of curves and surfaces.

Prerequisite: MATH 22005 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 45021 EUCLIDEAN GEOMETRY 3 Credit Hours

(Slashed with MATH 55021) Geometry of Euclid extended to advanced topics of the triangle, quadrilaterals and circles: cross-ratio, groups, constructions, geometric generalizations and inversion.

Prerequisite: Minimum C grade in MATH 21001 or MATH 21002.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 45022 LINEAR GEOMETRY 3 Credit Hours

(Slashed with MATH 55022) Use of transformations as a tool to study geometry and to differentiate between different kinds of geometry. Linear algebra methods applied to geometry.

Prerequisite: Minimum C grade in MATH 21001 or MATH 21002.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 46001 ELEMENTARY TOPOLOGY 3 Credit Hours

(Slashed with MATH 56001) Metric spaces, introduction to topological spaces, separation axioms.

Prerequisite: MATH 22005 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 47011 THEORY OF NUMBERS 3 Credit Hours

(Slashed with MATH 57011) Divisibility properties of the integers, prime numbers, congruences, quadratic reciprocity, Diophantine equations, number theoretic functions, simple continued fractions and rational approximations.

Prerequisite: Minimum C grade in MATH 12003 or MATH 12013.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 47021 HISTORY OF MATHEMATICS 3 Credit Hours

(Slashed with MATH 57021) Survey from Babylonian and Egyptian mathematics to 20th century mathematics with emphasis on the development of algebra, geometry, calculus, number theory.

Prerequisite: MATH 23022 or higher with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 49992 INTERNSHIP IN MATHEMATICS (ELR) 1-3 Credit Hours

Supervised work experience and training in the mathematical sciences. Since this work will be outside the department a report and final presentation will be required.

Prerequisite: Special Approval.

Schedule Type: Practical Experience

Contact Hours: 0 lecture, 0 lab, 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

MATH 49995 SELECTED TOPICS IN MATHEMATICS AND ITS APPLICATIONS 1-4 Credit Hours

(Repeatable for credit) Various special courses will be announced in the schedule of classes under this course number with different section numbers.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

MATH 49996 INDIVIDUAL STUDY 1-4 Credit Hours

(Repeatable for credit) Individual investigation in mathematics.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-4 other

Grade Mode: Standard Letter

MATH 49998 RESEARCH (ELR) 1-15 Credit Hours

(Repeatable for credit) Research in mathematics.

Prerequisite: Special approval.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

MATH 50011 PROBABILITY THEORY AND APPLICATIONS 3 Credit Hours

(Slashed with MATH 40011) Permutations and combinations, discrete and continuous distributions, random variables, conditional probabilities, Baye's formula, mathematical expectation, law of large numbers, normal approximations, basic limit theorems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 50012 THEORY OF STATISTICS 3 Credit Hours

(Slashed with MATH 40012) Sample spaces, continuous distributions, sampling distributions, point and interval estimation, hypothesis testing, types of error, level and power of tests, sequential and nonparametric methods.

Prerequisite: MATH 40011 or MATH 50011; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 50015 APPLIED STATISTICS 3 Credit Hours

(Slashed with MATH 40015) Course is based on classical linear regression techniques with an emphasis on real data using the principles of sound data analysis. Close attention is given to issues of interpretation, diagnostics, outliers and influential points, goodness of fit and model selection. Topics include simple and multiple linear regression, transformation and modifications of covariates and responses, design matrices, variable selection and logistic regression.

Prerequisite: Applied Mathematics major or Data Science major or Pure Mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 50024 COMPUTATIONAL STATISTICS 3 Credit Hours

(Slashed with MATH 40024) This course is about the use of computational tools to manage, explore, summarize and visualize data, as well as the computational underpinnings of fitting statistical models. It uses mostly the statistical computation language R, but also other languages like Python and Matlab. It also covers: simulation and random number generation, computationally intensive methods like the bootstrap and permutation tests, Expectation-Maximization and related algorithms and dimensionality reduction via matrix decomposition.

Prerequisite: Applied Mathematics major or Data Science major or Pure Mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 50028 STATISTICAL LEARNING 3 Credit Hours

(Slashed with MATH 40028) This course is about the statistical foundations of modern machine learning techniques. The main focus is classification and prediction using regression-based, tree-based and kernel-based methods. Specific methods include logistic regression, classification and regression trees, random forests and support vector machines. The course also includes an introduction to unsupervised and semi-supervised learning.

Prerequisite: MATH 40015 or MATH 50015; and MATH 40024 or MATH 50024; and Applied Mathematics major or Data Science major or Pure Mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 50051 TOPICS IN PROBABILITY THEORY AND STOCHASTIC PROCESSES 3 Credit Hours

(Slashed with MATH 40051) Topics from conditional expectations, Markov chains, Markov processes, Brownian Motion and Martingales and their applications to stochastic calculus.

Prerequisite: MATH 50011; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 50055 ACTUARIAL MATHEMATICS I 4 Credit Hours

(Slashed with MATH 40055) Topics from survival models, stochastic analysis of annuities and life insurance and casualty models.

Prerequisite: MATH 30055 and MATH 50011; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 50056 ACTUARIAL MATHEMATICS II 4 Credit Hours

(Slashed with MATH 40056) Benefit premiums, benefit reserves and their analysis; decrement models, joint survivorship, risk models.

Prerequisite: MATH 50055; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 50059 STOCHASTIC ACTUARIAL MODELS 3 Credit Hours

(Slashed with MATH 40059) Topics from investment risk, mean variance analysis, CAPM, financial derivatives, binomial pricing model, stochastic calculus, Black-Scholes pricing model and Greeks.

Prerequisite: MATH 40011 or MATH 50011; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 51001 MODERN ALGEBRA I 3 Credit Hours

(Slashed with MATH 41001) Basic properties of groups, subgroups, factor groups. Basic properties of rings, integral domains and homomorphisms.

Prerequisite: MATH 21001 and MATH 22005; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 51002 MODERN ALGEBRA II 3 Credit Hours

(Slashed with MATH 41002) A continuation of MATH 51001, emphasizing properties of rings, their ideals, polynomial ring extensions, fields, finite degree extensions, roots of polynomials, constructibility.

Prerequisite: MATH 41001 or MATH 51001; and applied mathematics or pure mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 51021 THEORY OF MATRICES 3 Credit Hours

(Slashed with MATH 41021) A rigorous study of the topics introduced in matrix algebra. Topics included are: canonical forms of matrices, diagonalizability criteria.

Prerequisite: MATH 21001 and MATH 22005; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 51038 INTERMEDIATE LOGIC 3 Credit Hours

(Cross-listed with PHIL 51038)(Slashed with CS 41038, MATH 41038 and PHIL 41038) A detailed, systematic study of symbolic logic for philosophy majors, mathematics majors, computer science majors and anyone else interested in advanced study in logic. The aim of the course is twofold: (1) to develop a facility in understanding and using symbolic logic for various purposes, and (2) to understand and appreciate symbolic logic as an area of study in itself. Topics include the distinction between syntactic, object-level proofs and semantic, meta-level proofs; the distinction between axiomatic systems and natural deduction systems of object-level proofs; various systems of modal logic; and some non-classical logics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52001 ANALYSIS I 3 Credit Hours

(Slashed with MATH 42001) Topics include basic structure of the real numbers, Cauchy sequences, convergence, completeness of the real numbers, continuity, differentiation and Riemann integration.

Prerequisite: Applied mathematics or pure mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52002 ANALYSIS II 3 Credit Hours

(Slashed with MATH 42002) Topics include further development of integration theory infinite series, uniform convergence, several variable calculus and metric spaces.

Prerequisite: MATH 42001 or MATH 52001; and applied mathematics or pure mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52011 MATHEMATICAL OPTIMIZATION 3 Credit Hours

(Slashed with MATH 42011) Analytical and numerical techniques for location of extreme points of functions and calculus of variations. Both constrained and unconstrained problems are considered.

Prerequisite: MATH 21001 and MATH 22005; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52021 GRAPH THEORY AND COMBINATORICS 3 Credit Hours

(Slashed with MATH 42021) Fundamentals and applications of combinatorial mathematics. Topics include transversability, colorability, networks, inclusion and exclusion, matching and designs.

Prerequisite: MATH 12003 and MATH 21001; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52024 NUMBERS AND GAMES 3 Credit Hours

(Slashed with MATH 42024) The study of partisan and impartial combinatorial games, games as numbers and Grundy-Sprague theory.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52031 MATHEMATICAL MODELS AND DYNAMICAL SYSTEMS 3 Credit Hours

(Slashed with MATH 42031) Formulation and analysis of mathematical models for a variety of phenomena. Mathematical methods from optimization, dynamical systems and probability are developed and applied. Modern software tools are utilized.

Prerequisite: MATH 32044; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52039 MODELING PROJECTS 3 Credit Hours

(Slashed with MATH 42039) Individual and small-group projects concerned with the formulation and analysis of mathematical models in a variety of areas. Written and oral reports required.

Prerequisite: MATH 52031 with a minimum C grade; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

MATH 52041 ADVANCED CALCULUS 3 Credit Hours

(Slashed with MATH 42041) The calculus and applications of scalar and vector functions of several variables. Vector differential and integral calculus. Applications to field theories, electricity and magnetism and fluid flow.

Prerequisite: MATH 21001 and MATH 22005.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52045 PARTIAL DIFFERENTIAL EQUATIONS 3 Credit Hours

(Slashed with MATH 42045) An introduction to Fourier series, Fourier transforms and partial differential equations. Wave, heat and potential equations of mathematical physics. Additional topics include Green's functions and the method of characteristics for wave equations.

Prerequisite: Applied Mathematics or Pure Mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52048 COMPLEX VARIABLES 3 Credit Hours

(Slashed with MATH 42048) Algebra of complex numbers, analytic functions, mappings, Cauchy integral theory, residue theory and applications.

Prerequisite: Applied mathematics or pure mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52201 NUMERICAL LINEAR ALGEBRA 3 Credit Hours

(Cross-listed with CS 52201)(Slashed with CS 42201 and MATH 42201) Fundamentals of numerical linear algebra; solving linear systems; QR factorization and least squares; iterative methods for eigenvalue problems.

Prerequisite: Applied Mathematics or Pure Mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 52202 NUMERICAL APPROXIMATION AND OPTIMIZATION 3 Credit Hours

(Cross-listed with CS 52202)(Slashed with CS 42202 and MATH 42202)

This course introduces numerical methods for solving nonlinear equations, optimizing functions, performing interpolation, computing differentiation and integration and solving differential equations.

Prerequisite: Applied Mathematics or Pure Mathematics major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 55011 DIFFERENTIAL GEOMETRY 3 Credit Hours

(Slashed with MATH 45011) Analytic and metric differential geometry of curves and surfaces.

Prerequisite: MATH 22005; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 55021 EUCLIDEAN GEOMETRY 3 Credit Hours

(Slashed with MATH 45021) Geometry of Euclid extended to advanced topics of the triangle, quadrilaterals and circles: cross-ratio, groups, constructions, geometric generalizations and inversion.

Prerequisite: MATH 21001; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 55022 LINEAR GEOMETRY 3 Credit Hours

(Slashed with MATH 45022) Use of transformations as a tool to study geometry and to differentiate between different kinds of geometry. Linear algebra methods applied to geometry.

Prerequisite: MATH 21001; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 56001 ELEMENTARY TOPOLOGY 3 Credit Hours

(Slashed with MATH 46001) Metric spaces, introduction to topological spaces, separation axioms.

Prerequisite: MATH 22005; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 57011 THEORY OF NUMBERS 3 Credit Hours

(Slashed with MATH 47011) Divisibility properties of the integers, prime numbers, congruences, quadratic reciprocity, Diophantine equations, number theoretic functions, simple continued fractions and rational approximations.

Prerequisite: MATH 12003; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 57021 HISTORY OF MATHEMATICS 3 Credit Hours

(Slashed with MATH 47021) Survey from Babylonian and Egyptian mathematics to 20th-century mathematics with emphasis on the development of algebra, geometry, calculus, number theory.

Prerequisite: One course MATH 23022 or higher; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 57095 SPECIAL TOPICS: MATHEMATICS AND ITS APPLICATIONS 1-3 Credit Hours

(Repeatable for credit) Offered periodically with different topics and different faculty involved.

Prerequisite: Graduate standing or special approval.

Schedule Type: Lecture

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 59893 VARIABLE TITLE WORKSHOP IN MATHEMATICS 1-6 Credit Hours

(Repeatable for credit) Studies in special topics in pure and applied mathematics.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

MATH 60051 PROBABILITY I 4 Credit Hours

(Slashed with MATH 70051) Distribution functions, measure theory, random variables, expectation, independence, convergence, concepts, law of large numbers.

Prerequisite: MATH 40011 or MATH 42002 or MATH 50011 or MATH 52002; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 60052 PROBABILITY II 3 Credit Hours

(Slashed with MATH 70052) Characteristic functions, the central limit problem, conditional expectations, Martingale theory, Brownian motion.

Prerequisite: MATH 60051; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 60061 MATHEMATICAL STATISTICS I 4 Credit Hours

(Slashed with MATH 70061) Statistics, distributions of statistics. Sampling distributions. Decision spaces and loss functions. Sufficiency and completeness. Estimation theory. Rao Blackwell and the Cramer Rao theorems.

Prerequisite: MATH 42002 or MATH 52002; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 60062 MATHEMATICAL STATISTICS II 3 Credit Hours

(Slashed with MATH 70062) Tests of statistical hypothesis. Neyman Pearson Lemma. Exponential families and invariance. Sequential tests. Non-parametric procedures.

Prerequisite: MATH 60061; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 60070 FINANCIAL MATHEMATICS 3 Credit Hours

(Slashed with MATH 70070) Topics from replication of trading strategies, arbitrage, completeness, Martingale representation theorem, fundamental theorem of finance, stochastic differential equations, Black and Scholes formula of option pricing.

Prerequisite: MATH 50051; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 60091 SEMINAR IN STATISTICS AND PROBABILITY 1-3 Credit Hours

(Repeatable for credit) Seminar on current research in statistics and probability.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 60093 VARIABLE TITLE WORKSHOP IN MATHEMATICS 1-3 Credit Hours

(Repeatable for credit) Studies of special topics in mathematics. Not acceptable for credit toward a graduate degree in mathematics without approval of the student's adviser.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

MATH 60194 COLLEGE TEACHING OF MATHEMATICS--LAB 1 Credit Hour

Techniques and problems in the teaching of college-level mathematics. Student presentations of mathematical papers and colloquia will be included.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 0 lecture, 2 lab, 0 other

Grade Mode: Standard Letter

MATH 61051 ABSTRACT ALGEBRA I 4 Credit Hours

(Slashed with MATH 71051) Advanced topics in group theory including Sylow Theorems, finite Abelian groups, divisible groups and related concepts. Includes one hour problem session each week.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 61052 ABSTRACT ALGEBRA II 3 Credit Hours

(Slashed with MATH 71052) Advanced topics, commutative ring theory and field theory, including polynomial rings, unique factorization domains, matrix rings, Galois theory.

Prerequisite: MATH 61051; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 61091 SEMINAR IN ALGEBRA 1-3 Credit Hours

(Repeatable for credit) Seminar on current research in algebra.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

MATH 62041 METHODS OF APPLIED MATHEMATICS I 3 Credit Hours

(Slashed with MATH 72041) Analysis and applications of ordinary and partial differential equations and related topics. Dimensional analysis (Buckingham Pi Theorem). Perturbation methods (singular perturbations, matched asymptotic expansions, WKB approximation). Variational methods (Euler-Lagrange equations).

Prerequisite: MATH 51021 and MATH 52041 and MATH 52045 and MATH 52048; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62042 METHODS OF APPLIED MATHEMATICS II 3 Credit Hours

(Slashed with MATH 72042) Continuation of MATH 62041. Integral equations and Green's functions (Fredholm alternative, compact operators, distributions, weak solutions). Wave phenomena (dispersion, KdV equation). Stability and bifurcation (linearized stability analysis, turning points, Hopf bifurcation).

Prerequisite: MATH 62041; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62051 FUNCTIONS OF A REAL VARIABLE I 4 Credit Hours

(Slashed with MATH 72051) Introduction to modern concepts of real analysis, including metric spaces, measure and integration theory.

Prerequisite: MATH 42002 or MATH 52002; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 62052 FUNCTIONS OF A REAL VARIABLE II 3 Credit Hours

(Slashed with MATH 72052) A continuation of MATH 62051. Included are basic topics in functional analysis and Hilbert space theory.

Prerequisite: MATH 62051; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62151 FUNCTIONS OF A COMPLEX VARIABLE I 4 Credit Hours

(Slashed with MATH 72151) Topological properties of the complex plane; analytic, entire, meromorphic functions; analytic continuation; conformal mappings; Picard's Theorem; Riemann surfaces.

Prerequisite: MATH 52002; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 62152 FUNCTIONS OF A COMPLEX VARIABLE II 3 Credit Hours

(Slashed with MATH 72152) Topological properties of the complex plane; analytic, entire, meromorphic functions; analytic continuation; conformal mappings; Picard's Theorem; Riemann surfaces.

Prerequisite: MATH 62151; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62251 NUMERICAL ANALYSIS I 4 Credit Hours

(Slashed with MATH 72251) Floating point computation, rounding error analysis, conditioning, numerical solution of linear systems of equations (LU factorization, error analysis), least squares, orthogonalization methods, algebraic eigenvalue problems, QR algorithm, singular value decomposition.

Prerequisite: MATH 21001 or MATH 21002; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 62252 NUMERICAL ANALYSIS II 3 Credit Hours

(Slashed with MATH 72252) Interpolation (polynomial, trigonometric, spline), numerical differentiation, numerical quadrature (Newton-Cotes, Gauss), extrapolation, Romberg integration, orthogonal polynomials, solving nonlinear equations and numerical optimization.

Prerequisite: MATH 22005; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62261 NUMERICAL SOLUTION OF ORDINARY DIFFERENTIAL EQUATIONS 3 Credit Hours

(Slashed with MATH 72261) Discretization methods for ordinary differential equations and systems. Initial value and boundary value problems. Numerical implementation software and analysis.

Prerequisite: MATH 32044; and MATH 42202 or MATH 52202; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62262 NUMERICAL SOLUTION OF PARTIAL DIFFERENTIAL EQUATIONS 3 Credit Hours

(Slashed with MATH 72262) Derivation and analysis of discrete methods (finite differences, finite elements) for the numerical solution of elliptic, hyperbolic and parabolic partial differential equations.

Prerequisite: MATH 42045 or MATH 52045; and MATH 42202 or MATH 52202; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62263 NUMERICAL SOLUTION OF LARGE SPARSE LINEAR SYSTEMS 3 Credit Hours

(Slashed with MATH 72263) Construction and analysis of iterative methods for large systems of linear algebraic equations. Jacobi, Gauss-Seidel, SOR. Polynomial acceleration methods, conjugate gradients. Multi-grid methods.

Prerequisite: MATH 41021 or MATH 51021; and MATH 42202 or MATH 52202; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62264 NUMERICAL SOLUTION OF NONLINEAR SYSTEMS 3 Credit Hours

(Slashed with MATH 72264) Construction and analysis of numerical methods for systems of nonlinear algebraic equations and optimization problems. Numerical implementation and software.

Prerequisite: MATH 42041 or MATH 52041; and MATH 42202 or MATH 52202; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 62291 SEMINAR IN COMPUTATIONAL AND APPLIED MATHEMATICS 1-3 Credit Hours

(Repeatable for credit) (Slashed with MATH 72291) Seminar on current research in computational and applied Mathematics

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

MATH 62391 SEMINAR IN MEASURE THEORY 1-3 Credit Hours

(Repeatable for credit) Seminar on current research in measure theory.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 62491 SEMINAR IN NONLINEAR ANALYSIS 1-3 Credit Hours

(Repeatable for credit) Seminar on current research in nonlinear analysis.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 64091 SEMINAR IN MATHEMATICS EDUCATION 3 Credit Hours

(Repeatable for credit) Studies in geometry, algebra, mathematics for junior and senior high school. Mathematics content professionalized for teachers.

Prerequisite: MATH 34001; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

MATH 66051 INTRODUCTION TO TOPOLOGY I 4 Credit Hours

(Slashed with MATH 76051) Set theory, topological spaces, continuity, product spaces, quotient spaces, separation axioms, compactness and metrizability.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 67057 ADVANCED CONCEPTS OF GEOMETRY 3 Credit Hours

This course covers advanced topics in Euclidean geometry, including the Ceva's, Menelaus' and nine-point theorems; mass-point geometry; solid geometry; 2D and 3D analytic geometry; conic sections; geometric inequalities; applications of complex numbers in Euclidean geometry; geometric constructions; and combinatorial geometry.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 67067 ADVANCED CONCEPTS OF PROBABILITY AND STATISTICS 3 Credit Hours

This course covers advanced topics in probability and statistics, including core probability topics: probability axioms, discrete and continuous random variables, independence and conditional probability, inequalities and limit theorems; and main statistics topics sample, sample mean and variance, interval estimators, hypothesis tests and linear regression.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 67077 ADVANCED CONCEPTS OF ALGEBRA 3 Credit Hours

This course covers advanced topics in abstract algebra, including basic number theory; divisibility and congruence of integers; examples and properties of rings; polynomial rings; unique factorization and irreducibility of polynomials; quotient rings; finite fields; examples and basic properties of groups; Cayley tables and isomorphisms; subgroups; cosets; and the theorems of Lagrange, Euler and Fermat.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 67091 SEMINAR IN NUMBER THEORY 1-3 Credit Hours

(Repeatable for credit) (Slashed with MATH 77091) Seminar on current research in number theory.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 67095 SELECTED TOPICS IN MATHEMATICS 1-4 Credit Hours

(Repeatable for credit) Various special courses will be announced in the schedule of classes under this course number with different section numbers.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-4 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

MATH 67098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits are applied toward degree requirements with approval if letter grade of "S" is given.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Standard Letter

MATH 67199 THESIS I 2-6 Credit Hours

Thesis student must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

MATH 67299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: MATH 67199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

MATH 69099 CAPSTONE PROJECT 2-3 Credit Hours

The course is an integrative experience that brings together all components of the Masters nonthesis graduate program.

Prerequisite: Graduate standing and special approval.

Schedule Type: Project or Capstone

Contact Hours: 0 lecture, 0 lab, 2-3 other

Grade Mode: Standard Letter-IP

MATH 70051 PROBABILITY I 4 Credit Hours

(Slashed with MATH 60051) Distribution functions, measure theory, random variables, expectation, independence, convergence, concepts, law of large numbers.

Prerequisite: MATH 40011 or MATH 50011; or MATH 42002 or MATH 52002; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 70052 PROBABILITY II 3 Credit Hours

(Slashed with MATH 60052) Characteristic functions, the central limit problem, conditional expectations, Martingale theory, Brownian motion.

Prerequisite: MATH 60051 or MATH 70051; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 70061 MATHEMATICAL STATISTICS I 4 Credit Hours

(Slashed with MATH 60061) Statistics, distributions of statistics. Sampling distributions. Decision spaces and loss functions. Sufficiency and completeness. Estimation theory. Rao Blackwell and the Cramer Rao theorems.

Prerequisite: MATH 42002 or MATH 52002.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 70062 MATHEMATICAL STATISTICS II 3 Credit Hours

(Slashed with MATH 60062) Tests of statistical hypothesis. Neyman Pearson Lemma. Exponential families and invariance. Sequential tests. Non parametric procedures.

Prerequisite: MATH 60061 or MATH 70061; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 70070 FINANCIAL MATHEMATICS 3 Credit Hours

(Slashed with MATH 60070) Topics from replication of trading strategies, arbitrage completeness, Martingale presentation theorem, fundamental theorem of finance, stochastic differential equations, Black and Scholes formula of option pricing.

Prerequisite: MATH 50051; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 70091 SEMINAR IN STATISTICS AND PROBABILITY 1-3 Credit Hours

(Repeatable for credit) Seminar on current research in statistics and probability.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

MATH 70095 SELECTED TOPICS IN STATISTICS AND PROBABILITY 1-3 Credit Hours

(Repeatable for credit) Topics vary with each offering and complement topics covered in MATH 70051, MATH 70052, MATH 70061 and MATH 70062.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MATH 70194 COLLEGE TEACHING OF MATHEMATICS--LAB 1 Credit Hour

Techniques and problems in the teaching of college-level mathematics. Student presentations of mathematical papers and colloquia will be included.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 0 lecture, 2 lab, 0 other

Grade Mode: Standard Letter

MATH 71001 STRUCTURE OF RINGS AND ALGEBRAS I 3 Credit Hours

Advanced topics in ring theory, including Artinian rings, Noetherian rings, advanced commutative ring theory.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 71002 STRUCTURE OF RINGS AND ALGEBRAS II 3 Credit Hours

Advanced topics in ring theory including an introduction to homological algebra. Includes Dedekind domains, regular rings, torsion theory.

Prerequisite: MATH 71001; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 71011 ADVANCED GROUP THEORY 3 Credit Hours

Advanced topics in group theory. Topics include permutation arguments, coprime actions, transfer theorems, nonsimplicity criteria. Properties of families of groups: solvable, p solvable, nilpotent, p groups.

Prerequisite: MATH 61051 or MATH 71051; and MATH 61052 or MATH 71052; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 71012 CHARACTERS OF FINITE GROUPS 3 Credit Hours

Development of characters of finite groups, their properties, orthogonality relations, integrality conditions. Applications include Burnside's paqb theorem and existence of Frobenius kernels in Frobenius groups.

Prerequisite: MATH 61051 or MATH 71051; and MATH 61052 or MATH 71052; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 71051 ABSTRACT ALGEBRA I 4 Credit Hours

(Slashed with MATH 61051) Advanced topics in group theory, including Sylow theorems, finite Abelian groups, divisible groups and related concepts. Includes one-hour problem session each week.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 71052 ABSTRACT ALGEBRA II 3 Credit Hours

(Slashed with MATH 61052) Advanced topics, commutative ring theory and field theory, including polynomial rings, unique factorization, domains, matrix rings, Galois theory.

Prerequisite: MATH 61051 or MATH 71051; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 71091 SEMINAR IN ALGEBRA 1-3 Credit Hours

(Repeatable for credit) (Slashed with MATH 61091) Seminar on current research in algebra.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

MATH 71095 SELECTED TOPICS IN ALGEBRA 1-3 Credit Hours

(Repeatable for credit) Topics vary with each offering and complement topics covered in MATH 71002, MATH 71051 and MATH 71052.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MATH 72001 FUNCTIONAL ANALYSIS I 3 Credit Hours

A study of principles of linear analysis in the setting of normed linear spaces and topological vector spaces.

Prerequisite: MATH 72052; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72041 METHODS OF APPLIED MATHEMATICS I 3 Credit Hours

(Slashed with MATH 62041) Analysis and applications of ordinary and partial differential equations and related topics. Dimensional analysis (Buckingham Pi Theorem). Perturbation methods (singular perturbations, matched asymptotic expansions, WKB approximation). Variational methods (Euler-Lagrange equations).

Prerequisite: MATH 51021 and MATH 52041 and MATH 52045 and MATH 52048; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72042 METHODS OF APPLIED MATHEMATICS II 3 Credit Hours

(Slashed with MATH 62042) Continuation of MATH 72041. Integral equations and Green's functions (Fredholm alternative, compact operators, distributions, weak solutions). Wave phenomena (dispersion, KdV equation). Stability and bifurcation (linearized stability analysis, turning points, Hopf bifurcation).

Prerequisite: MATH 62041 or MATH 72041; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72051 FUNCTIONS OF A REAL VARIABLE I 4 Credit Hours

(Slashed with MATH 62051) Introduction to modern concepts of real analysis including metric spaces, measure and integration theory.

Prerequisite: MATH 42002 or MATH 52002; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 72052 FUNCTIONS OF A REAL VARIABLE II 3 Credit Hours

(Slashed with MATH 62052). A continuation of MATH 72051. Included are basic topics in functional analysis and Hilbert space theory.

Prerequisite: MATH 62051 or MATH 72051; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72095 SELECTED TOPICS IN REAL ANALYSIS 1-3 Credit Hours

(Repeatable for credit) Topics vary with each offering and complement topics covered in MATH 72002, MATH 72051 and MATH 72052.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MATH 72151 FUNCTIONS OF A COMPLEX VARIABLE I 4 Credit Hours

(Slashed with MATH 62151) Topological properties of the complex plane; analytic, entire, meromorphic functions; analytic continuation; conformal mappings; Picard's Theorem; Riemann surfaces.

Prerequisite: MATH 52002; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 72152 FUNCTIONS OF A COMPLEX VARIABLE II 3 Credit Hours

(Slashed with MATH 62152) Topological properties of the complex plane; analytic, entire, meromorphic functions; analytic continuation; conformal mappings; Picard's theorem; Riemann surfaces.

Prerequisite: MATH 72151; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72195 SELECTED TOPICS IN COMPLEX ANALYSIS 1-3 Credit Hours

(Repeatable for credit) Topics vary with each offering and complement topics covered in MATH 72151 and MATH 72152.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MATH 72251 NUMERICAL ANALYSIS I 4 Credit Hours

(Slashed with MATH 62251) Floating point computation, rounding error analysis, conditioning, numerical solution of linear systems of equations (LU factorization, error analysis), least squares, orthogonalization methods, algebraic eigenvalue problems, QR algorithm, singular value decomposition.

Prerequisite: MATH 21001 or MATH 21002; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 72252 NUMERICAL ANALYSIS II 3 Credit Hours

(Slashed with MATH 62252) Interpolation (polynomial, trigonometric, spline), numerical differentiation, numerical quadrature (Newton-Cotes, Gauss), extrapolation, Romberg integration, orthogonal polynomials, solving nonlinear equations and numerical optimization.

Prerequisite: MATH 22005; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72261 NUMERICAL SOLUTION OF ORDINARY DIFFERENTIAL EQUATIONS 3 Credit Hours

(Slashed with MATH 62261) Discretization methods for ordinary differential equations and systems. Initial value and boundary value problems. Numerical implementation software and analysis.

Prerequisite: MATH 32044; and MATH 42202 or MATH 52202; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72262 NUMERICAL SOLUTION OF PARTIAL DIFFERENTIAL EQUATIONS 3 Credit Hours

(Slashed with MATH 62262) Derivation and analysis of discrete methods (finite differences, finite elements) for the numerical solution of elliptic, hyperbolic and parabolic partial differential equations.

Prerequisite: MATH 42045 or MATH 52045; and MATH 42202 or MATH 52202; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72263 NUMERICAL SOLUTION OF LARGE SPARSE LINEAR SYSTEMS 3 Credit Hours

(Slashed with MATH 62263) Construction and analysis of iterative methods for large systems of linear algebraic equations. Jacobi, Gauss-Seidel, SOR. Polynomial acceleration methods, conjugate gradients. Multi-grid methods.

Prerequisite: MATH 41021 or MATH 51021; and MATH 42202 or MATH 52202; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72264 NUMERICAL SOLUTION OF NONLINEAR SYSTEMS 3 Credit Hours

(Slashed with MATH 62264) Construction and analysis of numerical methods for systems of nonlinear algebraic equations and optimization problems. Numerical implementation and software.

Prerequisite: MATH 42041 or MATH 52041; and MATH 42202 or MATH 52202; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 72291 SEMINAR IN COMPUTATIONAL AND APPLIED MATHEMATICS 1-3 Credit Hours

(Repeatable for credit) (Slashed with Math 62291) Seminar on current research in numerical analysis.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 72295 SELECTED TOPICS IN NUMERICAL ANALYSIS 1-3 Credit Hours

(Repeatable for credit) Topics vary with each offering and complement topics covered in MATH 72251 and MATH 72252.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MATH 72391 SEMINAR IN MEASURE THEORY 1-3 Credit Hours

(Repeatable for credit) Seminar on current research in measure theory.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 72491 SEMINAR IN NONLINEAR ANALYSIS 1-3 Credit Hours

(Repeatable for credit) Seminar on current research in nonlinear analysis.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 76051 INTRODUCTION TO TOPOLOGY I 4 Credit Hours

(Slashed with MATH 66051) Set theory, topological spaces, continuity, product spaces, quotient spaces separation axioms, compactness and metrizable.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

MATH 76095 SELECTED TOPICS IN TOPOLOGY 1-3 Credit Hours

(Repeatable for credit) Topics vary with each offering and complement topics covered in MATH 76051.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MATH 77011 ALGEBRAIC NUMBER THEORY 3 Credit Hours

Number fields and Dedekind domains; conjugates, norm and trace, discriminant, integral bases; arithmetic or quadratic and cyclotomic number fields; theory of ideals and class group; Dirichlet's theorem on units.

Prerequisite: MATH 57011; and MATH 61052 or MATH 71052; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 77012 ANALYTIC NUMBER THEORY 3 Credit Hours

Multiplicative functions and summatory functions, Riemann's Zeta function and the prime number theorem, L-functions and Dirichlet's theorem on primes in arithmetic progressions, asymptotic formula for partitions.

Prerequisite: MATH 57011 and MATH 62151 or MATH 72151.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MATH 77091 SEMINAR IN NUMBER THEORY 1-3 Credit Hours

(Repeatable for credit) (Slashed with MATH 67091) Seminar on current research in number theory.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MATH 77095 SELECTED TOPICS IN MATHEMATICS 1-3 Credit Hours

(Repeatable for credit) Course topic varies with each offering.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MATH 77098 RESEARCH I 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits are applied toward degree requirements with approval if letter grade of "S" is given.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Standard Letter

MATH 77195 SELECTED TOPICS IN NUMBER THEORY 1-3 Credit Hours

(Repeatable for credit) Content varies with each offering and complements topics covered in MATH 77011 and MATH 77012.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MATH 77198 RESEARCH II 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits are applied toward degree requirements with approval if letter grade of "S" is given.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory

MATH 87098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed their candidacy examinations. Credits earned may be applied toward degree if department approves.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Standard Letter

MATH 87199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Admission to doctoral candidacy; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

MATH 87299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: MATH 87199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Department of Modern and Classical Language Studies

American Sign Language (ASL)

ASL 19201 ELEMENTARY AMERICAN SIGN LANGUAGE I 4 Credit Hours

Introduction to American Sign Language and the culture of the American signing community, in an immersion setting.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

ASL 19202 ELEMENTARY AMERICAN SIGN LANGUAGE II 4 Credit Hours

A continuation of the introduction to American Sign Language and the culture of the American signing community, in an immersion setting.

Prerequisite: ASL 19201.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

ASL 19401 EXPLORATION OF DEAF CULTURE 3 Credit Hours

Introduction to the American Deaf Community and its culture. Topics include myths and facts about deafness, cultural norms, basic history of American Sign Language, issues of language and cultural oppression, history of education of deaf and hard-of-hearing individuals, legal rights and advocacy.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 29201 INTERMEDIATE AMERICAN SIGN LANGUAGE I 3 Credit Hours

Continued development of receptive and expressive skills in American Sign Language and an introduction to ASL grammar, using a bilingual-bicultural approach and interaction with deaf organizations.

Prerequisite: ASL 19202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

ASL 29202 INTERMEDIATE AMERICAN SIGN LANGUAGE II 3 Credit Hours

Continuation of ASL 29201 with an emphasis on greater exploration of American Sign Language sentence structure using a bilingual-bicultural approach. Students are involved in a community service project, providing a hands-on experience with using ASL within a community setting.

Prerequisite: ASL 29201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

ASL 29212 APPLIED AMERICAN SIGN LANGUAGE GRAMMAR 3 Credit Hours

Provides students with intensive instruction and practice in grammar to help intermediate students express complex ideas using American Sign Language.

Prerequisite: ASL 19202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 29213 FINGERSPELLING, NUMBERS AND DEPICTION 3 Credit Hours

Provides intermediate students with intensive instruction and practice in technical aspects of American Sign Language, including fingerspelling, numbers, and depiction, and provides opportunities for students to incorporate these skills in spontaneous conversations.

Prerequisite: ASL 19202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 39095 SPECIAL TOPICS IN AMERICAN SIGN LANGUAGE 1-3 Credit Hours

(Repeatable for credit for maximum 9 hours) Special topics course in American Sign Language, the topic of which varies. Precise titles and descriptions appear in the schedule of classes.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ASL 39201 ADVANCED AMERICAN SIGN LANGUAGE: NARRATIVE AND STORYTELLING 3 Credit Hours

Students enhance receptive and expressive proficiency in an immersion setting through the use of both planned and impromptu in-class discussion of current and historic events and involvement with a community service project. Students are advised to begin planning this activity early during the semester.

Prerequisite: ASL 29202 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 39202 ADVANCED AMERICAN SIGN LANGUAGE: PRACTICAL COMMUNICATION 3 Credit Hours

Students continue to increase their receptive and expressive proficiency with American Sign Language in an immersion setting through in-class formal and informal presentations, discussions of current and historical events and working with groups to complete a semester project.

Prerequisite: ASL 29202 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 39213 AMERICAN SIGN LANGUAGE CONVERSATION 3 Credit Hours

This course introduces students to concepts, vocabulary and signing conventions when interacting with the Deaf using American Sign Language (ASL). The conversation surrounds both community members' public and private lives. Some topics include world news and globalization; types of companies and industries; organizational structures; management; personnel; banking and finance; politics; global warming; environmental changes; natural disasters; and medical professional settings, including types of testing and procedures with advancing technologies. Topics of cross-cultural communication include etiquette and socio-pragmatic conventions, solidarity and deference, directness and indirectness and language variation. Course materials, activities and assessments are carried out within the World-Readiness Standards for Learning Languages (National Standards Collaborative Board) framework and "5 C's": communication, cultures, connections, comparisons and communities.

Prerequisite: ASL 29202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 39223 SOCIOLINGUISTICS OF THE DEAF COMMUNITY (WIC) 3 Credit Hours

Provides an introduction to the sociolinguistics of American Sign Language (ASL) and the Deaf Community: A study of ASL within a social context. Topics include: multilingualism, variation (related to region, ethnicity, class and age), bilingualism and language contact, language policy and planning and language attitudes. This course is taught in English. Knowledge of ASL is helpful but not necessary.

Prerequisite: Junior standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

ASL 39401 INFLUENTIAL FIGURES IN THE DEAF WORLD 3 Credit Hours

This course explores key figures who have impacted the lives and culture of Deaf, Deaf-Blind and hard of hearing people while also participating within a dominant culture. First-hand narratives will allow students to engage with Deaf experiences to understand hegemony as it applies to hearing status. Coursework investigates but is not limited to the lives and contributions of those who have influenced American Sign Language, ASL instruction, Deaf professionals in Education and research, the arts, interpreting, sports, media, legislation, and affiliated organizations. A portion of this course will be utilized to explore Deaf people, social issues and civil rights from a global perspective.

Pre/corequisite: ASL 19202.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

ASL 49091 SEMINAR IN AMERICAN SIGN LANGUAGE LINGUISTICS 3 Credit Hours

(Repeatable for credit) Provides an in-depth treatment of an American Sign Language linguistics-related topic.

Prerequisite: Minimum C grade in ASL 49108; and special approval.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 49092 PRACTICUM IN AMERICAN SIGN LANGUAGE (ELR) 1-3 Credit Hours

In consultation with the ASL program coordinator, ASL students design a practicum experience related to signed languages and their communities. Successful presentation of cumulative portfolio required prior to registration.

Prerequisite: ASL 29202.

Schedule Type: Practical Experience

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

ASL 49096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Individual research on a topic dealing with American Sign Language, ASL pedagogy and/or deaf culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other gradable product(s).

Prerequisite: One American Sign Language (ASL) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

ASL 49108 AMERICAN SIGN LANGUAGE LINGUISTICS I 3 Credit Hours

(Slashed with SPED 53108) Lecture, discussion and application course designed to introduce students to basic linguistic terminology and concepts, as applied to American Sign Language (ASL) and taught using a bilingual-bicultural approach. Both ASL and English are used in the instruction of this class. Successful presentation of cumulative portfolio is required prior to registration in this course.

Prerequisite: ASL 29202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 49201 ADVANCED PROFICIENCY 3 Credit Hours

Students improve knowledge and use of American Sign Language and experiential knowledge of ASL culture through development, production, critique, revision and evaluation of an extended ASL presentation. This is an immersion class; voicing will not be used.

Prerequisite: ASL 39202; and score of intermediate level on the Signing Competency Proficiency Interview.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 49350 AMERICAN SIGN LANGUAGE LITERATURE 3 Credit Hours

This course explores the evolution of storytelling and poetry in American Sign Language and the Deaf community (in the U.S.). Two perspectives are explored: (1) the evolution of the language and its literature, and (2) the historical context and important figures whose work and style had significant impact. The course is conducted primarily in ASL, but examines the translation process to and from English to explore how the spoken, written and signed languages influence each other. This course culminates in a final student production in ASL, either live or recorded, performed for an audience providing appropriate translation and accessibility.

Prerequisite: ASL 39201 with a minimum B grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ASL 49601 ACTIVITY DESIGN, IMPLEMENTATION AND EVALUATION 3 Credit Hours

This course is designed to prepare students to teach in both a formal classroom setting as well as in developing community programs to increase awareness of ASL and the Deaf community. Through a combination of theoretical foundations and practical application, students develop a comprehensive understanding of ASL pedagogy. This is an essential course for students preparing for a student teaching placement or students in other fields who wish to offer workshops and community content.

Pre/corequisite: ASL 39202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Arabic (ARAB)**ARAB 11101 ELEMENTARY ARABIC I 4 Credit Hours**

Course is designed for learners with little or no previous knowledge of the Arabic language. It is based on the integration of learning outcomes across interpersonal, interpretive and presentational modes of communication. Students are introduced to the basics of the Arabic writing and sound systems. Students learn basic grammar, vocabulary and structures to enable them to meet functional performance goals at the elementary level to build a foundation for continued language learning. Students engage in real-world communicative tasks in culturally appropriate ways through Modern Standard Arabic and colloquialisms of at least one dialect.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

ARAB 11102 ELEMENTARY ARABIC II 4 Credit Hours

Continuation of ARAB 11101. This course is based on the integration of learning outcomes across interpersonal, interpretive and presentational modes of communication. It reviews the basics of the Arabic writing and sound systems; focuses on extending students' knowledge of basic grammar, vocabulary and structures to enable them to meet functional performance goals at the elementary level; and develops the skills required for continued language learning. Students engage in real-world communicative tasks in culturally appropriate ways through Modern Standard Arabic and colloquialisms of at least one dialect.

Prerequisite: ARAB 11101.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

ARAB 21201 INTERMEDIATE ARABIC I 3 Credit Hours

Continuation of ARAB 11102. This course is based on the integration of learning outcomes across interpersonal, interpretive and presentational modes of communication. It builds upon the concepts, themes, topics and subjects covered during the elementary levels. Course focuses on extending students' knowledge of basic grammar, vocabulary and structures to enable them to meet functional performance goals at the intermediate level, and develops the skills required for continued language learning. Students continue to engage in real-world communicative tasks in culturally appropriate ways through Modern Standard Arabic and colloquialisms of at least one dialect.

Prerequisite: ARAB 11102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 21202 INTERMEDIATE ARABIC II 3 Credit Hours

A continuation of ARAB 21201. This course is based on the integration of learning outcomes across interpersonal, interpretive and presentational modes of communication. The course focuses on extending students' knowledge of basic grammar, vocabulary and structures to enable them to meet functional performance goals at the intermediate level, and develops the skills required for continued language learning. Students continue to engage in real-world communicative tasks in culturally appropriate ways through Modern Standard Arabic and colloquialisms of at least one dialect.

Prerequisite: ARAB 21201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 21401 ARAB CULTURES 3 Credit Hours

This course promotes an understanding of contemporary Arab cultures through conversations and discussions centered around the readings from the course textbook and other supplemental materials provided by the course instructor. Through discussion, other interactive course activities, and short assignments, students learn about the symbols, languages, values, norms, and artifacts that are part of Arab cultures. The course is taught in English and is open to students in all programs of study. No knowledge of the Arabic language is necessary.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 30095 SPECIAL TOPICS IN ARABIC CULTURE AND LANGUAGE 3 Credit Hours

(Repeatable for a maximum of 9 credit hours) Topics in Arabic civilization, culture or language.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 31311 ARABIC FOR WRITTEN COMMUNICATION 3 Credit Hours

This course is based on the integration of learning outcomes across interpersonal, interpretive, and presentational modes of communication with a focus on developing reading and writing skills. Students engage in real-world communicative tasks in culturally appropriate ways through Modern Standard Arabic and colloquialisms of at least one dialect.

Prerequisite: ARAB 21202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 31313 ARABIC FOR ORAL COMMUNICATION 3 Credit Hours

This course is based on the integration of learning outcomes across interpersonal, interpretive, and presentational modes of communication with a focus on developing listening and speaking skills. Students engage in real-world communicative tasks in culturally appropriate ways through Modern Standard Arabic and colloquialisms of at least one dialect.

Prerequisite: ARAB 21202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 37230 TRANSLATION PRACTICE: ARABIC 3 Credit Hours

Theory and practice course that discusses translation theory and emphasizes Arabic-English translation of selected texts for business, technology, medicine, law, literature and audiovisual media.

Prerequisite: ARAB 21202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 37240 CONVERSATION FOR BUSINESS AND SPECIAL PURPOSES: ARABIC 3 Credit Hours

This course is based on the integration of learning outcomes across interpersonal, interpretive, and presentational modes of communication with a focus on developing listening and speaking skills in Arabic for business and other specialized contexts. Students engage in real-world communicative tasks in culturally appropriate ways through Modern Standard Arabic and colloquialisms of at least one dialect.

Prerequisite: ARAB 21202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 41096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with Arabic language or culture carried out under the supervision of a faculty member. Departmental approval is required. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Arabic (ARAB) upper-division course (30000 or 40000 level) with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

ARAB 47240 BUSINESS AND SPECIAL TEXTS: ARABIC 3 Credit Hours

This course introduces the concept of language for special purposes and emphasizes special vocabulary in business and other related settings. Learners will build up competence and skills in written communication in business contexts. The course enhances understanding of cultural and ethical issues to identify, resolve and avoid miscommunication. Students learn how to work collaboratively and perform professionally.

Prerequisite: One upper-division ARAB 30000 level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 47343 ARABIC MEDIA AND CURRENT EVENTS 3 Credit Hours

This course introduces students to authentic texts and audiovisual materials from a wide variety of media sources. The course familiarizes students with different media genres. In this course, students develop linguistic, analytical, and bidirectional translation skills and expand their reading, writing, listening, and speaking proficiency. Students discuss, in Arabic, current events related to topics such as technology, politics, economics, terrorism, and the environment.

Prerequisite: One upper-division ARAB course (30000 or 40000 level).

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

ARAB 67010 PRACTICE OF ARABIC TRANSLATION 2 Credit Hours

Introductory course in which students translate a variety of non-specialized, non-fiction short texts in different domains, identify the most common semantic, syntactic, stylistic, cultural and discourse-level problems encountered in translation, and apply appropriate cognitive strategies.

Prerequisite: Graduate standing.

Pre/corequisite: TRST 60010.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

ARAB 67091 SEMINAR IN ARABIC TRANSLATION 3 Credit Hours

(Repeatable for credit) An in-depth exploration of methods and resources for specialized translation projects currently of concern in the translation industry across the Arabic-speaking world. Topics may focus on various sub-domains including law, finance, medicine, technology, cybersecurity, media translation, subtitling, etc.

Prerequisite: ARAB 67010 and TRST 60010; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARAB 67098 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with Arabic language, translation or culture carried out under the supervision of a faculty member. Departmental approval is required. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

ARAB 67979 TRANSLATION CASE STUDY 3 Credit Hours

Students are responsible for a major translation and a terminology glossary as well as a critical analysis of the source text, the problems encountered during the translation process and the strategies used to solve them.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Satisfactory/Unsatisfactory-IP

Chinese (CHIN)**CHIN 15101 ELEMENTARY CHINESE I 4 Credit Hours**

An introduction to Mandarin Chinese in the context of modern Chinese-speaking cultures.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

CHIN 15102 ELEMENTARY CHINESE II 4 Credit Hours

A continuation of the introduction to Mandarin Chinese in the context of modern Chinese-speaking cultures.

Prerequisite: CHIN 15101.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

CHIN 25201 INTERMEDIATE CHINESE I 3 Credit Hours

Building on skills and knowledge from CHIN 15102, students expand their ability to perform real-world communicative tasks in culturally appropriate ways as they gain familiarity with products, practices and perspectives of Chinese culture. Communicative tasks include listening, speaking, reading and writing in Chinese. Students learn grammar, vocabulary, tones and structures to enable them to meet functional performance goals at the intermediate level and build a foundation for continued language learning.

Prerequisite: CHIN 15102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

CHIN 25202 INTERMEDIATE CHINESE II 3 Credit Hours

Building on skills and knowledge from CHIN 25201, students continue to expand their ability to perform real-world communicative tasks in culturally appropriate ways as they gain familiarity with products, practices and perspectives of Chinese culture. Communicative tasks include listening, speaking, reading and writing in Chinese. Students learn grammar, vocabulary, tones and structures to enable them to meet functional performance goals at the intermediate level and build a foundation for continued language learning.

Prerequisite: CHIN 25201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

CHIN 25421 CHINESE CULTURE 3 Credit Hours

This course will guide students to explore the foundations of Chinese civilization and the dimensions of Chinese culture. The course will focus on providing students with a deeper knowledge of Chinese culture and better understanding of contemporary China. This course is a basic introduction to Chinese culture. It does not presume prior knowledge of China or the Chinese language. This course is taught in English and is open to students in any program.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHIN 30095 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit) Topic to be announced in schedule of classes.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHIN 35211 INTENSIVE CHINESE CONVERSATION 3 Credit Hours

This course increases students' knowledge of Chinese vocabulary and sentence structure; emphasis will be on developing fluency and oral proficiency in Chinese.

Prerequisite: CHIN 25202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHIN 35221 CHINESE IN THE REAL WORLD 3 Credit Hours

This course focuses on how the Chinese language varies by social and cultural contexts. The instructor will utilize different socially and culturally relevant topics to help students master the structures, vocabulary, and idiomatic expressions commonly used in formal and informal situations. Students will be systematically exposed to the distinguishing features of written and spoken Chinese in terms of language form, function, and communication.

Prerequisite: CHIN 25202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHIN 45096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with Chinese language or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Chinese (CHIN) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

CHIN 45302 BUSINESS CHINESE 3 Credit Hours

Study of the business protocol, language functions, texts and vocabulary associated with travel and business in the Chinese-speaking world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHIN 45322 CHINESE FICTION 3 Credit Hours

This course emphasizes speaking and reading skills in Chinese through selected stories and anecdotes including sayings from classical philosophers, folk tales, legends, and great works of literature.

Prerequisite: CHIN 25202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CHIN 45323 CHINESE COMPOSITION 3 Credit Hours

This course focuses on studying modern and classical forms of Chinese literature written by acknowledged masters. Through studying these works, students improve their understanding of Chinese literature, open avenues of thought, broaden their vocabulary, master basic rules and techniques of writing, and develop the ability to write with eloquence and skill.

Prerequisite: CHIN 25202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Classics (CLAS)**CLAS 21201 ENGLISH WORDS FROM CLASSICAL ELEMENTS 3 Credit Hours**

Building of English vocabulary through study of basic roots from Latin and Greek; prefixes, suffixes, rules for accent and pronunciation; specialized scientific and legal terminology.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 21404 THE GREEK ACHIEVEMENT (KHUM) 3 Credit Hours

A survey of the cultural achievements of the ancient Greeks as manifested in their poetry, philosophy, history and art from the Homeric period through the New Testament.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, Transfer Module Humanities

CLAS 21405 THE ROMAN ACHIEVEMENT (KHUM) 3 Credit Hours

A survey of the cultural achievements of the ancient Romans as manifested in their literature and art from the Etruscans through the Christians.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, Transfer Module Humanities

CLAS 41005 HISTORY OF ANCIENT GREECE 3 Credit Hours

(Slashed with CLAS 51005) (Cross-listed with HIST 41003 and HIST 51003) Survey of Greek history from the Bronze Age to the rise of Macedonia and Alexander the Great.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 41006 ROMAN HISTORY 3 Credit Hours

(Cross-listed with HIST 41006) (Slashed with CLAS 51006, HIST 51006 and HIST 71006) A survey of Roman history from its beginnings to the fall of the Roman Empire.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 41089 CLASSICS INTERNATIONAL EXPERIENCE (ELR) 1-4 Credit Hours

(Slashed with CLAS 51089) A Kent State faculty-led study abroad experience that involves experiential activities and site visits outside the United States. May include, for example, participation in an archaeological dig or tour of sites in Italy and Greece. Course may have pre- or post-travel classroom study. Course activities may include classroom study, research, fieldwork, internships and service-learning.

Prerequisite: Special approval.

Schedule Type: Lecture, Practical Experience

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

CLAS 41092 FIELD EXPERIENCE IN CLASSICS (ELR) 1-4 Credit Hours

(Repeatable for a maximum of 7 credit hours)(Slashed with CLAS 51092)
Travel-based study/field experience at a site or sites away from Kent State University under the supervision of members of the classics faculty. The primary purpose is the observation and study of artifacts, monuments and sites that pertain to classical antiquity. Examples of travel/study include field trips to museums, study trips to Rome or other cities and participation in an archaeological field school.

Prerequisite: None.

Schedule Type: Field Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

CLAS 41095 SPECIAL TOPICS IN CLASSICS 3 Credit Hours

(Repeatable for a maximum of 6 credit hours)(Slashed with CLAS 51095)
Topic varies per course offering and listed in the schedule of classes.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 41096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with classical languages or cultures carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Classics (CLAS) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

CLAS 41097 COLLOQUIUM IN CLASSICS 3 Credit Hours

(Repeatable for credit)(Slashed with CLAS 51097) Detailed study of an aspect of antiquity that engages issues of current interest, for example women in antiquity, ancient Christianity, multiculturalism in antiquity.

Prerequisite: None.

Schedule Type: Colloquium

Contact Hours: 3 other

Grade Mode: Standard Letter

CLAS 41301 CLASSICAL MYTHOLOGY 3 Credit Hours

(Slashed with CLAS 51301) Assessment of major streams of ancient mythology stressing broad humanistic concepts of religion, philosophy and literature.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 41304 LITERATURE OF THE ROMAN WORLD (ELR) (WIC) 3 Credit Hours

(Slashed with CLAS 51304) Major works of Latin literature, studied in their historical context by genre; knowledge of Latin not required. Authors read include Plautus, Terence, Lucretius, Cicero, Catullus, Vergil, Horace, Petronius, Seneca, Suetonius, Tacitus and Juvenal.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

CLAS 41401 GREEK ARCHAEOLOGY AND ART 3 Credit Hours

(Slashed with CLAS 51401) Introduction to archaeology of the Greek world with emphasis on recent discoveries and their impact on the study of Greek art, architecture and sculpture through the Hellenistic period.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 41402 ROMAN ARCHAEOLOGY AND ART 3 Credit Hours

(Slashed with CLAS 51402) Introduction to archaeology of the Roman world with emphasis on recent discoveries and their impact on the study of Etruscan and Roman art, architecture and sculpture through the Imperial period.

Prerequisite: Junior or senior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 41404 ANCIENT CHRISTIANITIES 3 Credit Hours

In-depth examination of the formative period of Christianity and the diverse "Christianities" during the first 100 years after the death of Jesus of Nazareth, including the Judaic context for the birth of Christianity, diversity among the earliest Christian communities, and the process by which the New Testament canon was formed. Study of a variety of texts produced by the early church.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 41503 LITERATURE OF THE ANCIENT GREEKS (ELR) (WIC) 3 Credit Hours

(Slashed with CLAS 51503) Major works of Greek literature, studied in their historical context and by genre. Knowledge of Greek is not required.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

CLAS 51005 HISTORY OF ANCIENT GREECE 3 Credit Hours

(Slashed with CLAS 41005) (Cross-listed with HIST 41003 and HIST 51003) Survey of Greek history from the Bronze Age to the rise of Macedonia and Alexander the Great.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 51006 ROMAN HISTORY 3 Credit Hours

(Cross-listed with HIST 51006) (Slashed with CLAS 41006, HIST 41006 and HIST 71006) A survey of Roman history from its beginnings to the fall of the Roman Empire.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 51089 CLASSICS INTERNATIONAL EXPERIENCE 1-4 Credit Hours

(Slashed CLAS 51089) A Kent State faculty-led study abroad experience that involves experiential activities and site visits outside the United States. International experience may include, for example, participation in an archaeological dig or tour of sites in Italy or Greece. International experience courses may have pre-and post-travel classroom study. Course activities include, but are not limited to, classroom study, research, fieldwork, internships and service-learning.

Prerequisite: Graduate Standing; and special approval.

Schedule Type: Lecture, Practical Experience

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

CLAS 51092 FIELD EXPERIENCE IN CLASSICS 1-4 Credit Hours

(Repeatable for a maximum of 7 credit hours)(Slashed with CLAS 41092) Travel-based study/field experience at a site or sites away from Kent State University under the supervision of members of the classics faculty. The primary purpose is the observation and study of artifacts, monuments and sites that pertain to classical antiquity. Examples of travel/study include field trips to museums, study trips to Rome or other cities and participation in an archaeological field school.

Prerequisite: Graduate standing.

Schedule Type: Field Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

CLAS 51095 SPECIAL TOPICS IN CLASSICS 3 Credit Hours

(Repeatable for a maximum of 6 credit hours)(Slashed with CLAS 51095) Topic varies per course offering and listed in the schedule of classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 51097 COLLOQUIUM IN CLASSICS 3 Credit Hours

(Repeatable for credit) (Slashed with CLAS 41097) Detailed study of an aspect of antiquity that engages issues of current interest, for example women in antiquity, ancient Christianity, multiculturalism in antiquity.

Prerequisite: Graduate standing.

Schedule Type: Colloquium

Contact Hours: 3 other

Grade Mode: Standard Letter

CLAS 51301 CLASSICAL MYTHOLOGY 3 Credit Hours

(Slashed with CLAS 41301) Assessment of major streams of ancient mythology stressing broad humanistic concepts of religion, philosophy and literature.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 51304 LITERATURE OF THE ROMAN WORLD 3 Credit Hours

(Slashed with CLAS 41304) Major works of Latin literature, studied in their historical context by genre; knowledge of Latin not required. Authors read include Plautus, Terence, Lucretius, Cicero, Catullus, Vergil, Horace, Petronius, Seneca and Juvenal.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 51401 GREEK ARCHAEOLOGY AND ART 3 Credit Hours

(Slashed with CLAS 41401) Introduction to archaeology of the Greek world with emphasis on recent discoveries and their impact on the study of Greek art, architecture and sculpture through the Hellenistic period.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 51402 ROMAN ARCHAEOLOGY AND ART 3 Credit Hours

(Slashed with CLAS 41402) Introduction to archaeology of the Roman world with emphasis on recent discoveries and their impact on the study of Etruscan and Roman art, architecture and sculpture through the Imperial period.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 51503 LITERATURE OF THE ANCIENT GREEKS 3 Credit Hours

(Slashed with CLAS 41503) Major works of Greek literature, studied in their historical context and by genre. Knowledge of Greek is not required.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 61404 ANCIENT CHRISTIANITIES 3 Credit Hours

In-depth examination of the formative period of Christianity and the diverse "Christianities" during the first 100 years after the death of Jesus of Nazareth, including the Judaic context for the birth of Christianity, diversity among the earliest Christian communities, and the process by which the New Testament canon was formed. Study of a variety of texts produced by the early church.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CLAS 66398 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with classical languages, translation or cultures carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

French (FR)

FR 10089 BASIC CONVERSATIONAL FRENCH (ELR) 2 Credit Hours

This course is offered to students who are studying in Paris and have little to no previous experience in French, and helps students acquire competencies in all four basic language skills: listening, speaking, reading and writing. The course has a practical focus on opportunities for self-expression in everyday situations (transportation, shopping, dining), as well as in professional contexts (internships, workplace, studio). The course develops intercultural competence through a comparative, critical approach to the study of language and culture. Students are encouraged to complete MCLS 23217 before their semester abroad.

Prerequisite: Special approval.

Schedule Type: International Experience, Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

FR 13201 ELEMENTARY FRENCH I 4 Credit Hours

An introduction to the French language in the context of Francophone cultures.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

FR 13202 ELEMENTARY FRENCH II 4 Credit Hours

A continuation of the introduction to the French language in the context of Francophone cultures.

Prerequisite: FR 13201.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

FR 20089 BASIC PROFESSIONAL FRENCH (ELR) 2 Credit Hours

This conversation course is offered to students enrolled in professionally-oriented programs during their semester or summer abroad in Paris. Students practice the four language skills (listening, speaking, reading and writing) with a focus on vocabulary and expressions relevant to professional contexts, including applying for positions, French workplace culture and reading and writing business documents. Comparative and critical analyses of French and American professional practices develop students' intercultural competence.

Prerequisite: FR 13202; and special approval.

Schedule Type: International Experience, Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

FR 23201 INTERMEDIATE FRENCH I 3 Credit Hours

Continued development of speaking, listening, reading and writing skills using a variety of cultural materials.

Prerequisite: FR 13202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

FR 23202 INTERMEDIATE FRENCH II 3 Credit Hours

This course develops oral and written communication skills in French, as well as reading and listening skills through practice with conversations about familiar topics and situations involving issues of current interest, reading informational and fictional texts, and listening to podcasts and watching videos in French. The course develops the ability to describe and narrate and go beyond memorized phrases in a variety of timeframes, including the past and the future.

Prerequisite: FR 23201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

FR 33091 FRENCH FOR THE PROFESSIONS SEMINAR 3 Credit Hours

(Repeatable for credit) Introduction to the special vocabulary for the professions; introduces the concept of language for special purposes and emphasizes the use of special vocabulary throughout conversations and texts for the professions (e.g. business, hospitality, international relations, healthcare).

Prerequisite: FR 23202.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

FR 33095 SELECTED TOPICS IN FRENCH 3 Credit Hours

(Repeatable for a maximum of 9 credit hours) Topic to be announced in the schedule of classes.

Prerequisite: FR 33211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 33211 FRENCH CONVERSATION 3 Credit Hours

A course designed to enhance students' oral proficiency through instruction in facilitating conversation and the discussion of culture-based texts. This course also include phonetics and diction components to enhance students' understanding of the language.

Prerequisite: FR 23202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 33212 FRENCH COMPOSITION 3 Credit Hours

A course designed to develop writing and reading skills, as well as to prepare students to read and write about French literature and culture.

Prerequisite: FR 23202; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 33215 FRENCH PHONETICS AND DICTION 3 Credit Hours

Study of sounds of French language and their relation to spelling; application of international phonetic alphabet to French. Study augmented by recordings.

Prerequisite: FR 23202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 33230 TRANSLATION PRACTICE: FRENCH (WIC) 3 Credit Hours

Theory and practice course that discusses translation theory and emphasizes French-to-English translation of selected texts for business, technology, medicine, law, literature and audiovisual media.

Prerequisite: FR 23202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

FR 33335 INTRODUCTION TO FRENCH THEATRE (ELR) (WIC) 3 Credit Hours

Evolution of French dramatic literature from the middle ages to the present. Readings of representative works with lectures analyses. In French.

Prerequisite: FR 33212.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

FR 33336 INTRODUCTION TO FRENCH POETRY (ELR) (WIC) 3 Credit Hours

Evolution of French poetry from the middle ages to the present. Readings of representative works with lectures analyses. In French.

Prerequisite: FR 33212.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

FR 33337 INTRODUCTION TO FRENCH LITERARY PROSE (ELR) (WIC) 3 Credit Hours

Masterpieces of French literary prose from the seventeenth century to the present. Readings of representative major works, lectures, analyses. In French. This course may be used to satisfy the WIC graduation requirement with approval of major department.

Prerequisite: FR 33212 or permission.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

FR 33421 FRENCH CIVILIZATION 3 Credit Hours

A survey of French history and culture from its beginnings to World War II. Taught in French.

Prerequisite: FR 33212.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 43091 FRENCH SEMINAR 3 Credit Hours

(Repeatable for credit) (Slashed with FR 53091) Topic to be announced.

Prerequisite: One course from FR 33335 or FR 33336 or FR 33337.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

FR 43093 VARIABLE TITLE WORKSHOP IN FRENCH 1-6 Credit Hours

(Repeatable for credit) Workshops individually designed to provide instruction and training in specific areas of French studies.

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

FR 43096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with French language, literature or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One French (FR) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

FR 43213 FRENCH COMPOSITION-ADVANCED 3 Credit Hours

(Slashed with FR 53213) French stylistics developed by analyses of literary extracts and practice in written expression.

Prerequisite: FR 33335 or FR 33336 or FR 33337 or FR 33421.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 43216 CONTEMPORARY FRENCH CULTURE 3 Credit Hours

(Slashed with FR 53216) A study of selected sociological, political, cultural or economic issues in the contemporary Francophone world.

Prerequisite: FR 33421; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 43368 THE TWENTIETH-CENTURY FRENCH NOVEL 3 Credit Hours

Studies of selected 20th century French novels, with detailed study of the novel of one or several major writers or movements.

Prerequisite: 6 semester hours from the 33330-level.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 43369 TWENTIETH-CENTURY FRENCH POETRY 3 Credit Hours

(Slashed with FR 53369) A study of selected poetry of Apollinaire, Breton, Mansour, Eluard, Michaux, Char, Reverdy, Ponge, Guillevic, Jabes, Bonnefoy, Dupin, Albiach and others. Emphasis is placed on the relationship between poetry and the visual arts in the 20th century.

Prerequisite: 6 semester hours from the FR 33330-level.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 43370 THE TWENTIETH CENTURY FRENCH THEATRE 3 Credit Hours

(Slashed with FR 53370) Studies in French drama since 1900.

Prerequisite: 6 semester hours from the 33330-level.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 43591 SEMINAR IN FRENCH CINEMA 3 Credit Hours

(Slashed with FR 53591)(Repeatable for credit) Topics for this course provide a history of French cinema from the early years of documentary and fantasy film through the 1930s, the Golden Age of French cinema, the French New Wave and contemporary trends in French and Francophone cinema. Students develop analytical and critical skills in "reading" film as an aesthetic work (matters of form, narrative and style) and a cultural artifact (social, economic and political functions).

Prerequisite: Two of the following courses: FR 33335 or FR 33336 or FR 33337 or FR 33421.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

FR 53091 FRENCH SEMINAR 3 Credit Hours

(Repeatable for credit) (Slashed with FR 43091) Topic to be announced.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

FR 53213 FRENCH COMPOSITION-ADVANCED 3 Credit Hours

French stylistics developed through analyses of literary extracts and practice in written expression.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 53216 CONTEMPORARY FRENCH CULTURE 3 Credit Hours

(Slashed with FR 43216) A study of selected sociological, political, cultural or economic issues in the contemporary Francophone world.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 53368 20TH-CENTURY FRENCH NOVEL 3 Credit Hours

Study of selected 20th-century French novels, with emphasis on one or several major writers or movements.

Prerequisite: 6 hours from 33330-level; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 53369 20TH-CENTURY FRENCH POETRY 3 Credit Hours

(Slashed with FR 43369) A study of selected poetry of Apollinaire, Breton, Mansour, Eluard, Michaux, Char, Reverdy, Ponge, Guillevic, Jabes, Bonnefoy, Dupin, Alpiach and others. Emphasis is placed on the relationship between poetry and the visual arts in the 20th century.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 53370 20TH-CENTURY FRENCH THEATRE 3 Credit Hours

(Slashed with FR 43370) Studies in French drama since 1900.

Prerequisite: 6 hours from 33330-level; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 53591 SEMINAR IN FRENCH CINEMA 3 Credit Hours

(Slashed with FR 43591)(Repeatable for credit) Topics for this course provide a history of French cinema from the early years of documentary and fantasy film through the 1930s, the Golden Age of French cinema, the French New Wave and contemporary trends in French and Francophone cinema. Students develop analytical and critical skills in "reading" film as an aesthetic work (matters of form, narrative and style) and a cultural artifact (social, economic and political functions).

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

FR 63010 THE PRACTICE OF FRENCH TRANSLATION 2 Credit Hours

Students apply linguistic and communication science concepts to case studies of language mediation.

Prerequisite: Graduate standing.

Corequisite: TRST 60010.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

FR 63091 SEMINAR IN FRENCH TRANSLATION 3 Credit Hours

(Repeatable for credit) An in-depth exploration of methods and resources for specialized translation projects currently of concern in the translation industry across the French-speaking world. Topics may focus on various sub-domains including law, finance, medicine, technology, cybersecurity, media translation, subtitling, etc.

Prerequisite: FR 63010 and TRST 60010; graduate studies.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

FR 63093 VARIABLE TITLE WORKSHOP IN FRENCH 1-6 Credit Hours

(Repeatable for credit) Workshops individually designed to provide instruction and training in specific areas of French studies.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

FR 63098 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with French language, translation or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

FR 63199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

FR 63299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: FR 63199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

FR 63979 CASE STUDY IN TRANSLATION 3 Credit Hours

Students will be responsible for a major translation and a terminology glossary as well as a critical analysis of the source text, the problems encountered during the translation process and the strategies used to solve them.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Satisfactory/Unsatisfactory

German (GER)**GER 11201 ELEMENTARY GERMAN I 4 Credit Hours**

An introduction to the German language in the context of the cultures of German-speaking lands.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

GER 11202 ELEMENTARY GERMAN II 4 Credit Hours

A continuation of the introduction to the German language in the context of the cultures of German-speaking lands.

Prerequisite: GER 11201.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

GER 21201 INTERMEDIATE GERMAN I 3 Credit Hours

Continued development of speaking, listening, reading and writing skills using a variety of cultural materials.

Prerequisite: GER 11202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

GER 21202 INTERMEDIATE GERMAN II 3 Credit Hours

Continuation of GER 21201.

Prerequisite: GER 21201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

GER 31095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Topic announced in schedule of classes.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

GER 31201 INTENSIVE GERMAN GRAMMAR 3 Credit Hours

A systematic approach to German grammar and syntax.

Prerequisite: GER 21202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 31211 GERMAN COMPOSITION AND CONVERSATION 3 Credit Hours

Grammar review and practice in writing and speaking German.

Prerequisite: GER 21202; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 31215 GERMAN PHONETICS AND DICTION 3 Credit Hours

Study of the German sound system with emphasis on pronunciation and intonation. Reading and performance of a series of skits and short plays.

Prerequisite: GER 21202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 31230 TRANSLATION PRACTICE: GERMAN (ELR) (WIC) 3 Credit Hours

Theory and practice course that discusses translation theory and emphasizes German-to-English translation of selected texts for business, technology, medicine, law, literature and audiovisual media.

Prerequisite: GER 21202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

GER 31240 CONVERSATION FOR BUSINESS AND SPECIAL PURPOSES: GERMAN 3 Credit Hours

Introduction to the special vocabulary of business and other special subject areas; introduces the concept of language for special purposes and emphasizes the use of special vocabulary in conversations in business and other settings.

Prerequisite: GER 31211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 31303 INTRODUCTION TO GERMAN LITERATURE 3 Credit Hours

Introduction to German literature and textual analysis.

Prerequisite: GER 21202 and GER 31201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 31421 GERMAN CIVILIZATION 3 Credit Hours

A survey of German history and intellectual life to 1918; taught in German.

Prerequisite: Six hours upper division German courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 41095 SPECIAL TOPICS 1-4 Credit Hours

(Repeatable for credit) (Slashed with GER 51095) Topic announced in schedule of classes.

Prerequisite: Senior standing.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

GER 41096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with German language or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One German (GER) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

GER 41211 ADVANCED GERMAN COMPOSITION AND CONVERSATION 3 Credit Hours

Advanced practice in speaking and writing German.

Prerequisite: GER 31211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 41216 CONTEMPORARY GERMAN CULTURE (ELR) (WIC) 3 Credit Hours

(Slashed with GER 51216) A study of selected sociological, political, cultural and economic issues in contemporary German-speaking countries using readings, films and legal documents as the basis for discussions. Taught in German.

Prerequisite: Six hours of upper division german courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

GER 41240 BUSINESS AND SPECIAL TEXTS: GERMAN 3 Credit Hours

Survey of the typical text types of business in the German culture and language. Practice sessions focus on reading and understanding specialized texts, and on the translation and composition of selected special texts in German.

Prerequisite: GER 31211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 41323 GERMAN FAIRY TALES 3 Credit Hours

(Slashed with GER 51323) An investigation in German fairy tales, from the Brothers Grimm to the literary fairy tales of later German authors.

Prerequisite: GER 31201 and GER 31211; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 41324 GERMAN LITERATURE FOR CHILDREN AND ADOLESCENTS 3 Credit Hours

(Slashed with GER 51324) An investigation into German literature for children and adolescents from the Middle Ages to modernity.

Prerequisite: GER 31201 and GER 31211; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 41330 20TH-CENTURY GERMAN AUTHORS (ELR) (WIC) 3 Credit Hours

A survey of the major movements and authors of the 20th century.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

GER 41334 THE GERMAN NOVELLA 3 Credit Hours

Development of the German novella from the 18th century to the present. Readings of major works lectures analyses taught in German.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 41340 HISTORY OF GERMAN LITERATURE TO 1750 3 Credit Hours

A history of the development of German literature from the Germanic tribes through the Age of Enlightenment (the first half of the eighteenth century).

Prerequisite: GER 31303 and 31421.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 41341 HISTORY OF GERMAN LITERATURE 1750 TO THE PRESENT 3 Credit Hours

A history of the development of German literature from the Age of Sensibility (the second half of the eighteenth century) to the present.

Prerequisite: GER 31303 and 31421.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 41399 RESEARCH PROJECT IN GERMAN LITERATURE (ELR) 3 Credit Hours

(Repeatable for credit) Thesis or other independent study.

Prerequisite: 6 credit hours of German (GER) 40000-level courses.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

GER 41731 SURVEY OF GERMAN CINEMA 3 Credit Hours

(Slashed with GER 51731) A survey of major contributions to the German cinema from the beginnings to the present; taught in German.

Prerequisite: Six hours of upper division german courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 51095 SPECIAL TOPICS 1-4 Credit Hours

(Repeatable for credit) (Slashed with GER 41095) Topic announced in schedule of classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

GER 51096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) (Slashed with GER 41096) Independent investigation of problems in German language or literature. Permission of the department chair required.

Prerequisite: Graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

GER 51212 STYLISTICS 3 Credit Hours

Development of written German style through selected readings, textual analysis and stylistic exercises.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 51216 CONTEMPORARY GERMAN CULTURE 3 Credit Hours

(Slashed with GER 41216) A study of selected sociological, political, cultural and economic issues in contemporary German-speaking countries, using readings, films and legal documents as the basis for discussion. Taught in German.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 51323 GERMAN FAIRY TALES 3 Credit Hours

(Slashed with GER 41323) An investigation into German fairy tales, from the Brothers Grimm to the literary fairy tales of later German authors.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 51324 GERMAN LITERATURE FOR CHILDREN AND ADOLESCENTS 3 Credit Hours

(Slashed with GER 41324) An investigation into German literature for children and adolescents from the Middle Ages to modernity.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 51340 HISTORY OF GERMAN LITERATURE TO 1750 3 Credit Hours

A history of the development of German literature from the Germanic tribes through the Age of Enlightenment (the first half of the eighteenth century).

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 51341 HISTORY OF GERMAN LITERATURE 1750 TO THE PRESENT 3 Credit Hours

A history of the development of German literature from the Age of Sensibility (the second half of the eighteenth century) to the present.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 51731 SURVEY OF GERMAN CINEMA 3 Credit Hours

(Slashed with GER 41731) A survey of major contributions to the German cinema from the beginnings to the present; taught in German.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GER 61010 THE PRACTICE OF GERMAN TRANSLATION 2 Credit Hours

Students apply linguistic and communication science concepts to case studies of language mediation.

Prerequisite: Graduate standing.

Corequisite: TRST 60010.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

GER 61091 SEMINAR IN GERMAN TRANSLATION 3 Credit Hours

(Repeatable for credit) An in-depth exploration of methods and resources for specialized German translation projects currently of concern in the translation industry. Topics may focus on various sub-domains including law, finance, medicine, technology, cybersecurity, media translation, subtitling, etc.

Prerequisite: GER 61010 and TRST 60010, graduate studies.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

GER 61199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

GER 61299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: GER 61199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

GER 61398 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with German language, translation or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

GER 61979 CASE STUDY IN TRANSLATION 3 Credit Hours

Students will be responsible for a major translation and a terminology glossary as well as a critical analysis of the source text, the problems encountered during the translation process and the strategies used to solve them.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Satisfactory/Unsatisfactory

Greek (GRE)**GRE 14201 ELEMENTARY CLASSICAL GREEK I 4 Credit Hours**

An introduction to the classical Greek language in the context of ancient Greek culture.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

GRE 14202 ELEMENTARY CLASSICAL GREEK II 4 Credit Hours

A continuation of the introduction to the classical Greek language in the context of ancient Greek culture.

Prerequisite: GRE 14201.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

GRE 24201 INTERMEDIATE CLASSICAL GREEK I: READINGS 3 Credit Hours

Excerpts from classical Greek literature with emphasis on translation into English.

Prerequisite: GRE 14202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

GRE 24202 INTERMEDIATE CLASSICAL GREEK II: READINGS 3 Credit Hours

Excerpts from classical Greek literature with emphasis on both prose (e.g. Plato) and poetry (e.g. Euripides).

Prerequisite: GRE 24201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

GRE 34370 PLATO: APOLOGY AND PHAEDO 3 Credit Hours

Readings in the original Greek of Plato's dialogues centering on the trial, conviction and death of Socrates.

Prerequisite: GRE 24202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GRE 34371 HOMER 3 Credit Hours

Selections from the Iliad or Odyssey studied from a literary and grammatical standpoint.

Prerequisite: GRE 24202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GRE 34372 ADVANCED READINGS IN GREEK 3 Credit Hours

Readings in the original Greek of authors in poetry and prose studied from a literary and grammatical standpoint.

Prerequisite: GRE 24202; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GRE 44096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Investigation of problems in Greek literature or linguistics.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

Hebrew (HEBR)**HEBR 12101 ELEMENTARY HEBREW I 4 Credit Hours**

An introduction to the modern Hebrew language in the context of Israeli culture.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

HEBR 12102 ELEMENTARY HEBREW II 4 Credit Hours

A continuation of the introduction to the modern Hebrew language in the context of Israeli culture.

Prerequisite: HEBR 12101.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

HEBR 22104 INTERMEDIATE HEBREW I 3 Credit Hours

Continued development of speaking, listening, reading and writing skills using a variety of cultural materials.

Prerequisite: HEBR 12102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HEBR 22105 INTERMEDIATE HEBREW II 3 Credit Hours

Continuation of HEBR 22104.

Prerequisite: HEBR 22104.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Heritage Languages (HRTG)**HRTG 10101 ELEMENTARY I (VARIABLE LANGUAGE) 4 Credit Hours**

An introduction to a heritage language in the context of the culture of its speakers.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

HRTG 20202 INTERMEDIATE II (VARIABLE LANGUAGE) 3 Credit Hours

Continued development of speaking, listening, reading and writing skills using a variety of cultural materials.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HRTG 30095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Topic announced in schedule of classes.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

Italian (ITAL)**ITAL 15201 ELEMENTARY ITALIAN I 4 Credit Hours**

An introduction to the Italian language in the context of Italian culture.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

ITAL 15202 ELEMENTARY ITALIAN II 4 Credit Hours

A continuation of the introduction to the Italian language in the context of Italian culture.

Prerequisite: ITAL 15201.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

ITAL 15204 BASIC CONVERSATIONAL ITALIAN I 2 Credit Hours

Exposure to basic grammar and to current Italian useful to travelers. Not applicable to fulfillment of foreign language requirement.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

ITAL 25201 INTERMEDIATE ITALIAN I 3 Credit Hours

Continued development of speaking, listening, reading and writing skills using a variety of cultural materials.

Prerequisite: ITAL 15202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

ITAL 25202 INTERMEDIATE ITALIAN II 3 Credit Hours

Continuation of ITAL 25201.

Prerequisite: ITAL 25201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

ITAL 35211 COMPOSITION AND CONVERSATION: CONTEMPORARY ITALIAN SOCIETY 3 Credit Hours

This course is designed to develop acquisition of written and oral proficiency through the study and practice of written and spoken Italian in the context of contemporary societal issues.

Prerequisite: ITAL 25202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ITAL 35213 COMPOSITION AND CONVERSATION: MEDIA AND INFORMATION IN ITALY 3 Credit Hours

This course is designed to develop acquisition of written and oral proficiency through the study and practice of written and spoken Italian in the context of contemporary Italian media and information-gathering.

Prerequisite: ITAL 25202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ITAL 35323 GRAMMAR OF FANTASY: THE LITERATURE AND TEACHINGS OF GIANNI RODARI 3 Credit Hours

This course, conducted in Italian, examines the literature and teachings of Gianni Rodari, renowned author of Italian children's literature. Readings explore Rodari's nursery rhymes, fables, his novel-length children's fairy tale and the essay collection that provides the foundation of his educational theory based on creativity and children's happiness.

Prerequisite: ITAL 25202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ITAL 35331 EARLY ITALIAN LITERATURE 3 Credit Hours

A survey of Italian literature from its medieval origins through the Baroque period.

Prerequisite: ITAL 35211 or ITAL 35213.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ITAL 35332 RECENT ITALIAN LITERATURE (ELR) 3 Credit Hours

A survey of Italian literature from the Enlightenment through the 1900s and into the 21st century.

Prerequisite: ITAL 35211 or ITAL 35213.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ITAL 35340 BOCCACCIO'S DECAMERON IN TRANSLATION 3 Credit Hours

The Decameron, one of the most entertaining, beloved and imitated prose works ever written, is an accurate reflection of fourteenth-century life in Italy. Like Dante's Divine Comedy, this human comedy was written not only to delight, but also to instruct by exploring both our spiritual and our natural environment. Giovanni Boccaccio (1313-1375), considered by some typically medieval and by others one of the first truly modern literary figures to emerge from the darkness of the Middle Ages into the light of the Renaissance, shows himself, as author of The Decameron, to be both a passionate believer and a passionate critic as he reconstructs society, destroyed by the Black Plague, through the perfection of his 100-fold narrative. Boccaccio's Decameron, of course, generated a flourishing early modern tradition of proto-novelistic short-story collections (think of Marguerite de Navarre and Cervantes), but also provided substantial material for the nascent dramatic tradition (from Machiavelli's Mandragola to Shakespeare's All's Well). His biographical collection, Of Famous Women, was an indispensable source and model for the wide-spread debates on the status of women. His Genealogy of the Gentile Gods was a staple of the Renaissance mythographical tradition. This course is taught in English.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ITAL 35421 ITALIAN CIVILIZATION 3 Credit Hours

Lectures, readings, oral and written reports on outstanding features of the culture and civilization of Italy.

Prerequisite: ITAL 25202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ITAL 35540 DANTE'S DIVINE COMEDY IN TRANSLATION 3 Credit Hours

This course is an introduction to Dante and the history of Florence through critical reading and discussion of the Divine Comedy and selected minor works: Vita Nova, Convivio, De vulgari eloquentia and the Epistle to Cangrande. Close readings of the Inferno, Purgatory and Paradise will explore the literary, political, theological and philosophical concerns of the poem in order to understand Dante's work within the intellectual and social context of the Middle Ages. Some of the central topics of the course will include Dante's relationship to Florence, his use of classical, Christian and mythological personages, symbols and references; his views on the papacy and the empire, his relationship to the people he encounters and the unique aspects of his vision of the afterlife. In addition, we will focus on a variety of thematic concerns including Dante's understanding of poetry, grace, love and divine justice. Though primarily taught through a combination of lecture and discussion, the course will also focus on the use of art, film, music, performance, digital media and other interdisciplinary methods that have been used to interpret and further our understanding the Divine Comedy and its lasting fascination and influence. The course and the readings will be offered in English.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ITAL 35597 COLLOQUIUM 3 Credit Hours

(Repeatable for credit) Variable topic course deals with single literary theme in Italian literature or a single author. May be offered in Italian or in English translation.

Prerequisite: Permission.

Schedule Type: Colloquium

Contact Hours: 3 other

Grade Mode: Standard Letter

ITAL 45093 VARIABLE TITLE WORKSHOP IN ITALIAN 1-6 Credit Hours

(Repeatable for credit) Workshops individually designed to provide instruction and training in specific areas of Italian studies.

Prerequisite: Departmental permission.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

ITAL 45095 SPECIAL TOPICS IN ITALIAN 3 Credit Hours

Designed to instruct students on a specific topic in the area of Italian studies.

Prerequisite: ITAL 35211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ITAL 45096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with Italian language or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Italian (ITAL) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

ITAL 45212 ADVANCED ITALIAN CONVERSATION 3 Credit Hours

Designed to develop students' ability to employ acquired grammar and vocabulary in conversation in Italian. Students will elaborate on cultural and social aspects of Italy presented in class and actively participate in class discussions.

Prerequisite: ITAL 35211 or 35213.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Japanese (JAPN)**JAPN 15101 ELEMENTARY JAPANESE I 4 Credit Hours**

Introduction to modern standard Japanese in the context of Japanese culture.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

JAPN 15102 ELEMENTARY JAPANESE II 4 Credit Hours

A continuation of the introduction to modern standard Japanese in the context of Japanese culture.

Prerequisite: JAPN 15101.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

JAPN 25089 INTERNATIONAL EXPERIENCE: JOURNEY TO JAPAN: PAST AND PRESENT (ELR) 3 Credit Hours

This course allows students to travel to Japan and learn important aspects of its culture and history. Students spend four days in Tokyo, four days in Kyoto and two days in Osaka and Nara. Through reading various Japanese texts, students gain insights into Japanese language, literature and culture. Although knowledge of Japanese is a great advantage, non-Japanese speakers are also invited to take this course since all the presentations and readings are in English.

Prerequisite: Special approval.

Schedule Type: International Experience

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

JAPN 25201 INTERMEDIATE JAPANESE I 3 Credit Hours

Continued development of speaking, listening and writing skills using a variety of cultural materials.

Prerequisite: JAPN 15102 with a minimum C- grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

JAPN 25202 INTERMEDIATE JAPANESE II 3 Credit Hours

Continuation of JAPN 25201. Continued development of speaking, listening and writing skills using a variety of cultural materials.

Prerequisite: JAPN 25201 with a minimum C- grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

JAPN 30095 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit) Topic to be announced in schedule of classes.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 35010 INTERMEDIATE READING 3 Credit Hours

The goal of this course is to achieve basic to intermediate competency with reading modern Japanese, develop reading strategies and comprehend and discuss the content of the readings. The course is conducted in both English and Japanese and consists of close, collaborative readings of texts. Students are required to give small presentations and complete weekly assignments and quizzes. There is also a midterm and final exam.

Prerequisite: JAPN 25201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 35101 INTENSIVE JAPANESE GRAMMAR 3 Credit Hours

A continuation of the study of modern standard Japanese grammar.

Focus on passive, causative, passive-causative forms.

Prerequisite: JAPN 25202 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 35326 ADVANCED READING 3 Credit Hours

This course is a continuation of JAPN 35010. The goal of this course is to achieve intermediate to advanced competency with reading modern Japanese, develop reading strategies and comprehend and discuss the content of the readings. The course is conducted in both English and Japanese and consists of close, collaborative readings of texts.

Students are required to give small presentations and complete weekly assignments and quizzes. There is also a midterm and final exam.

Prerequisite: JAPN 35010.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 45096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with Japanese language or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Japanese (JAPN) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

JAPN 45211 WRITING IN JAPANESE 3 Credit Hours

Advanced study of Japanese with emphasis on writing in different styles (essays, questionnaires, charts, emails, etc).

Pre/corequisite: JAPN 35101.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 45212 ORAL COMMUNICATION IN JAPANESE 3 Credit Hours

The class focuses on oral communication. Students practice expressing their opinions on familiar subjects and various topics related to Japanese culture through group discussion, interviews, role plays, and presentations. They learn different communication strategies and conversation styles from casual to formal.

Pre/corequisite: JAPN 35101.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 45301 BUSINESS JAPANESE 3 Credit Hours

Development of the four language skills in a manner specific to Japanese corporate settings. Introduces Japanese business practice and business etiquette.

Prerequisite: JAPN 35101.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

JAPN 45411 VOICES FROM JAPAN 3 Credit Hours

Designed to further develop students' proficiency in speaking, listening, writing and reading comprehension. The textbook includes interviews with Japanese from various backgrounds.

Pre/corequisite: JAPN 35101.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 45421 JAPANESE CULTURE 3 Credit Hours

Explores key aspects of traditional and contemporary Japanese culture. Taught in English; no knowledge of Japanese necessary.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 45591 VARIABLE TOPIC SEMINAR IN JAPANESE 3 Credit Hours

(Repeatable for credit) Seminar in Japanese literature or culture; course may be repeated when content varies. Student should have completed at least 9 hours of upper division work in Japanese.

Prerequisite: Special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

JAPN 55301 BUSINESS JAPANESE 3 Credit Hours

Development of the four language skills in a manner specific to Japanese corporate settings. Introduces Japanese business practice and business etiquette.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JAPN 65010 THE PRACTICE OF JAPANESE TRANSLATION 2 Credit Hours

Provides an introduction to the translation of non-specialized, non-fiction Japanese texts, focusing on common problem areas, general translation strategies, and specific techniques for resolving problems.

Prerequisite: Graduate standing.

Corequisite: TRST 60010.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

JAPN 65091 SEMINAR IN JAPANESE TRANSLATION 3 Credit Hours

(Repeatable for credit) An in-depth exploration of methods and resources for specialized Japanese translation projects currently of concern in the translation industry. Topics may focus on various sub-domains including law, finance, medicine, technology, cybersecurity, media translation, subtitling, etc.

Prerequisite: JAPN 65010 and TRST 60010; and graduate studies.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

JAPN 65098 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with Japanese language, translation or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

JAPN 65979 CASE STUDY IN TRANSLATION 3 Credit Hours

Students will be responsible for a major translation and a terminology glossary as well as a critical analysis of the source text, the problems encountered during the translation process and the strategies used to solve them.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Satisfactory/Unsatisfactory

Latin (LAT)**LAT 16201 ELEMENTARY LATIN I 4 Credit Hours**

An introduction to the classical Latin language in the context of ancient Roman culture.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

LAT 16202 ELEMENTARY LATIN II 4 Credit Hours

A continuation of the introduction to the classical Latin language in the context of ancient Roman culture.

Prerequisite: LAT 16201.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

LAT 26201 INTERMEDIATE LATIN I: READINGS 3 Credit Hours

Excerpts from Latin literature with emphasis on translation into English.

Prerequisite: LAT 16202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

LAT 26202 INTERMEDIATE LATIN II: READINGS 3 Credit Hours

Excerpts from Latin literature with emphasis on both prose (e.g., Caesar, Cicero) and poetry (Vergil, Catullus).

Prerequisite: LAT 26201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

LAT 36172 ADVANCED READINGS IN LATIN 3 Credit Hours

Readings in the original Latin of prose and poetry authors studied from a literary and grammatical standpoint.

Prerequisite: LAT 26202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 41214 LATIN EPIGRAPHY 3 Credit Hours

Study of ancient inscriptions (funerary, career, documentary, graffiti, etc.) preserved on any kind of durable material, with focus on cultural information necessary to understand the content and significance of the inscriptions under investigation.

Prerequisite: LAT 36172; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 41304 ROMAN HISTORIANS 3 Credit Hours

(Slashed with LAT 51304) Stylistics and cultural context of Roman historians. Readings from any of the following: Caesar, Livy, Suetonius, Tacitus.

Prerequisite: LAT 36172; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 41305 ROMAN COMEDY AND SATIRE 3 Credit Hours

Stylistics, history and cultural context of Roman comedy and satire. Readings from any of the following: Plautus, Terence, Horace, Juvenal, Persius, Martial.

Prerequisite: LAT 36172; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 41306 LATIN EPIC 3 Credit Hours

(Slashed with LAT 51306) Stylistics, history and cultural context of Latin epic poetry. Readings from any of the following: Vergil, Lucretius, Ovid, Lucan, Statius.

Prerequisite: LAT 36172; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 41307 LYRIC AND ELEGIAC POETRY 3 Credit Hours

(Slashed with LAT 51307) Stylistics, history and cultural context of Latin lyric and elegiac poetry. Readings from any of the following: Catullus, Horace, Propertius, Tibullus, Ovid.

Prerequisite: LAT 36172; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 41308 ORATORY AND LETTERS 3 Credit Hours

Stylistics, history and cultural context of Latin oratory and the Latin epistle. Readings from any of the following: Cicero, Seneca, Pliny.

Prerequisite: LAT 36172; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 46095 SELECTED TOPICS IN LATIN 3 Credit Hours

(Repeatable for credit) Topic announced in the schedule of classes.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 46096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with Latin language or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Latin (LAT) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

LAT 46211 LATIN PROSE COMPOSITION 3 Credit Hours

Analysis of prose models; writing of connected Latin prose with attention to the Latin idiom.

Prerequisite: LAT 36172.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 51304 ROMAN HISTORIANS 3 Credit Hours

(Slashed with LAT 41304) Stylistics and cultural context of Roman historians. Readings from any of the following: Caesar, Livy, Suetonius, Tacitus.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 51306 LATIN EPIC 3 Credit Hours

(Slashed with LAT 41306) Stylistics, history and cultural context of Latin epic. Readings from any of the following: Vergil, Ovid, Lucan, Lucretius, Statius.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 51307 LYRIC AND ELEGIAC POETRY 3 Credit Hours

(Slashed with LAT 41307) Stylistics, history and cultural context of Latin lyric and elegiac poetry. Readings from any of the following: Catullus, Horace, Propertius, Tibullus, Ovid.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 56095 SELECTED TOPICS IN LATIN 3 Credit Hours

(Repeatable for a maximum of 15 credit hours) Topic to be announced in semester schedule of classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 61001 RESEARCH AND WRITING 3 Credit Hours

Use of lexical tools, bibliographies and corpora specific to research in Classics and Latin. Conventions of scholarship in the discipline of Classics. To be taken in conjunction with a 50000 or 60000-level course in Latin literature.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 61214 LATIN EPIGRAPHY 3 Credit Hours

Study of ancient inscriptions (funerary, career, documentary, graffiti, etc.) preserved on any kind of durable material, with focus on cultural information necessary to understand the content and significance of the inscriptions under investigation.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 61305 ROMAN COMEDY AND SATIRE 3 Credit Hours

Stylistics, history and cultural context of Roman comedy and satire. Readings from any of the following: Plautus, Terence, Horace, Juvenal, Persius, Martial.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 61308 ORATORY AND LETTERS 3 Credit Hours

Stylistics, history and cultural context of Latin oratory and the Latin epistle. Readings from any of the following: Cicero, Seneca, Pliny.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 66199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

LAT 66211 ADVANCED PROSE COMPOSITION 3 Credit Hours

More thorough training in composition where need is established.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LAT 66299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: LAT 66199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

LAT 66391 SEMINAR IN CLASSICAL LITERATURE 2,3 Credit Hours

(Repeatable for credit) Topics to be announced.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 2-3 other

Grade Mode: Standard Letter-IP

LAT 66398 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with Latin language, translation or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

Modern and Classical Language Studies (MCLS)**MCLS 10001 INTRODUCTION TO STRUCTURAL CONCEPTS FOR LANGUAGE STUDENTS 3 Credit Hours**

Prepares students for successful study of a foreign language; includes introduction to basic grammatical concepts such as use of verb tenses, personal pronouns, etc., as well as strategies for learning a foreign language efficiently.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 10095 SPECIAL TOPICS IN ELEMENTARY FOREIGN LANGUAGE STUDY 1-3 Credit Hours

(Repeatable for credit) Study of a foreign language at the elementary level (Elementary I or II) or intermediate level (Intermediate I or II) as determined appropriate by the department. No proficiency needed for work at the Elementary I level; proficiency equivalent of Elementary I for work at the Elementary II level, at Elementary II for the Intermediate I level, and at Intermediate I for the Intermediate II level.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 other

Grade Mode: Standard Letter

MCLS 14421 INTRODUCTION TO YIDDISH LANGUAGE AND CULTURE 3 Credit Hours

This course is an introduction to the Yiddish language and the culture of Eastern European Jewry. The objectives of the course are twofold. The first is linguistic. Students should be able to read and write basic Yiddish and understand the fundamentals of Yiddish grammar. The second important objective of this course is to offer students an introduction to the richness of Yiddish culture of the past two centuries. This component of the course will include lectures and readings in English, films (documentary and dramatic), poetry, short fiction along with folk tales in English translation and the singing of Yiddish folk songs.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 20001 GLOBAL LITERACY AND CULTURAL AWARENESS (KADL) 3 Credit Hours

Introduction to dimensions of cultural identity and parameters of cultural expression, with a focus on fostering cultural awareness skills. By exploring the ways in which culture shapes us, students gain a better understanding of the dynamics shaping their world, the world of others, and their respective places in it. Discussion of real-world critical incidents, authentic cultural ethnographies, and case studies provide students with concrete examples and contexts to solve problems linked to encounters with persons of different linguistic and cultural backgrounds.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Additional

MCLS 20089 INTERNATIONAL EXPERIENCE (ELR) 1-4 Credit Hours

(Repeatable for credit) A study abroad experience that integrates traditional classroom learning with experiential activities and site visits outside the United States. This course includes some language skill development content during the international experience, varying as appropriate on a case by case basis.

Prerequisite: Special approval.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

MCLS 20091 VARIABLE CONTENT SEMINAR IN GLOBAL LITERACY: CASE STUDIES 3 Credit Hours

(Repeatable for credit) In-depth study of the interaction between two or more cultures of the world, focusing on the impact of linguistic and other cultural differences. Topics will vary.

Prerequisite: None.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 21417 MULTICULTURALISM IN TODAY'S GERMANY 3 Credit Hours

This course examines how issues of diversity have shaped German culture and traces the country's transformation into a postnational, multicultural society. Taught in English; knowledge of German not necessary.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 21420 WOMEN OF ARAB SOCIETIES 3 Credit Hours

This course will consider questions and lead to fruitful discussions about the changing roles and representation of women in contemporary Arab societies. It will highlight the social forces behind Arab women's status in society. It will also enable a better understanding of how Arab women are perceived in local, regional, and global contexts. The course is taught in English, does not presume prior knowledge in Arabic, and is open to all students in any program.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 22217 DIVERSITY IN TODAY'S RUSSIA 3 Credit Hours

This course examines how issues of diversity have shaped Russian culture and traces Russia's attempts at transition to a postnational, multicultural society. Taught in English; knowledge of Russian not necessary.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 23217 THE FRANCOPHONE EXPERIENCE 3 Credit Hours

This course offers an extensive introduction to various aspects of contemporary society and the culture of countries where French is spoken. In addition to providing a background for those interested in living, studying or working in a Francophone country, the course is designed to open fresh critical perspectives of American culture through comparative analysis with Francophone cultures. To this end, we focus both on how these cultures view themselves and each other. We read selections from both Anglophone and Francophone authors from a variety of disciplines, and also study representations of Francophone culture in film. The course is conducted in English, and knowledge of French is not necessary.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 28403 HISPANICS IN THE UNITED STATES 3 Credit Hours

An introduction to historic and cultural aspects of Latino experiences in the United States using a comparative approach focusing on Mexicans, Puerto Ricans, Cubans, Central Americans and other immigrants from other Latin American countries, living in the United States. The course is taught in English.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 28404 THE LATIN AMERICAN EXPERIENCE 3 Credit Hours

An introduction to various aspects of contemporary Latin American societies and cultures. Taught in English; knowledge of a foreign language is not necessary.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 30089 INTERNATIONAL EXPERIENCE (ELR) 1-4 Credit Hours

(Repeatable for credit) A Kent State faculty-led study abroad experience that integrates traditional classroom learning with experiential activities and site visits outside the United States. This course includes some language skill development content during the international experience, varying as appropriate on a case by case basis.

Prerequisite: Special approval.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

MCLS 30096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Individual research on a topic dealing with modern and classical language topics carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

MCLS 30420 FOREIGN LANGUAGES AND CULTURE STUDIES 3 Credit Hours

Examines the anthropological, linguistic and cultural dimensions involved in language interactions. Students acquire the skills necessary to analyze language and culture "in action" from verbal and non-verbal perspectives, and to identify and reflect on the distinctive viewpoints of other cultures and speakers of other languages. Interactive lectures, discussions and application activities build on students' current linguistic and cultural competence.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 30660 ORIENTATION TO SECOND LANGUAGE PEDAGOGY 3 Credit Hours

Theories of human development and learning, second language acquisition research and second language methodology form the basis for classroom practices. Peer-teaching and 30 hours of field experience required.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 39597 INTRADEPARTMENTAL COLLOQUIUM 1-4 Credit Hours

(Repeatable for credit) Permits students to explore areas of special interest not usually covered in standard departmental courses, e.g. movies and literature, women in literature.

Prerequisite: None.

Schedule Type: Colloquium

Contact Hours: 1-4 other

Grade Mode: Standard Letter

MCLS 40093 VARIABLE TITLE WORKSHOP IN MODERN AND CLASSICAL LANGUAGE STUDIES 1-6 Credit Hours

(Repeatable for credit) Workshops individually designed to provide instruction and training in specific areas of modern and classical language studies.

Prerequisite: Departmental special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

MCLS 40095 SELECTED TOPICS 1-3 Credit Hours

(Repeatable for credit when topic varies) Topic to be announced in the schedule of classes.

Prerequisite: Senior standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MCLS 40096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Individual research on a topic dealing with modern and classical language topics carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

MCLS 40510 INTRODUCTION TO NATURAL LANGUAGE PROCESSING 3 Credit Hours

(Cross-listed with CS 40510)(Slashed with CS 50510, CS 70510, MCLS 50510 and MCLS 70510) This course provides an introduction to natural language processing, discusses methods to analyze translation product and translation process data and applies and evaluates machine learning methods on natural language data. Students use tools to transform texts into structured representations that are elementary for numerous applications, artificial intelligence, data analytics and predictive modeling. Knowledge of Python is strongly encouraged, but not required.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 40525 INQUIRY INTO PROFESSIONAL PRACTICE 3 Credit Hours

Foreign language teaching as a profession and the teacher as disciplined investigator. The final seminar of four it is conducted during the student teaching semester with emphasis on collaborative and individual classroom problem solving.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 40654 TECHNOLOGY AND SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Slashed with MCLS 50654) During this course, students explore the use of current technology, its implementation in the classroom and its integration with second language skills. This course is designed for future teachers or any student interested in technology and second language acquisition.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 40660 METHODS OF TEACHING FOREIGN LANGUAGE 3 Credit Hours

Theoretical bases, approaches, methods, materials and techniques of foreign language instruction at the elementary and secondary levels. Peer-teaching and 30 hours of field experience required.

Prerequisite: MCLS 30660; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 40692 STUDENT TEACHING OF A SECOND LANGUAGE (ELR) 3-9 Credit Hours

(Repeatable for credit) Supervised practicum in the teaching of a second language, grades K-12.

Prerequisite: MCLS 30660 and MCLS 40660; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9-27 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

MCLS 50093 VARIABLE TITLE WORKSHOP IN MODERN AND CLASSICAL LANGUAGE STUDIES 1-6 Credit Hours

(Repeatable for credit) Workshops individually designed to provide instruction and training in specific areas of modern and classical language studies.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

MCLS 50095 SELECTED TOPICS 1-3 Credit Hours

(Repeatable for credit when topic varies) Topic to be announced in the schedule of classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

MCLS 50510 INTRODUCTION TO NATURAL LANGUAGE PROCESSING 3 Credit Hours

(Cross-listed with CS 50510)(Slashed with CS 40510, CS 70510, MCLS 40510 and MCLS 70510) This course provides an introduction to natural language processing, discusses methods to analyze translation product and translation process data and applies and evaluates machine learning methods on natural language data. Students use tools to transform texts into structured representations that are elementary for numerous applications, artificial intelligence, data analytics and predictive modeling. Knowledge of Python is strongly encouraged, but not required.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 50654 TECHNOLOGY AND SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Slashed with MCLS 40654) During this course, students explore the use of current technology, its implementation in the classroom and its integration with second language skills. This course is designed for future teachers or any student interested in technology and second language acquisition.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 50660 METHODS OF TEACHING FOREIGN LANGUAGES 3 Credit Hours

Theoretical bases, approaches, methods, materials and techniques of foreign language instruction at the elementary and secondary levels. Peer teaching 30 hours of field experience and curriculum guide required.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 60094 COLLEGE TEACHING OF FOREIGN LANGUAGES 1 Credit Hour

(Repeatable for credit) An introduction to current principles and issues in the teaching of foreign languages at the college elementary and intermediate levels. Required of departmental teaching assistants.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

MCLS 60098 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic related to modern and classical language studies carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

MCLS 60330 APPROACHES TO LITERATURE AND CULTURE 3 Credit Hours

Introduction to the major critical theories used for the analysis of literature and culture.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 60601 LINGUISTICS FOR THE LANGUAGE PROFESSIONS 3 Credit Hours

(Cross-listed with ENG 63040)(Slashed with ENG 83040) Students are introduced to basic linguistic issues and how these relate to language professions. Course focuses on functional principles, especially options to express textual, interpersonal and ideational/experiential meaning.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 60622 TEACHING LITERATURE AND CULTURE 3 Credit Hours

(Cross-listed with ENG 63038)(Slashed with ENG 83038 and MCLS 80622) Students explore theories of literature and culture teaching as well as strategies for teaching literature and culture.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 60623 SOCIOCULTURAL THEORY AND FOREIGN AND SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Cross-listed with ENG 63048)(Slashed with ENG 83048 and MCLS 80623) The foundations of sociocultural theory and its applications to the second and foreign language classroom.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 60624 HERITAGE LANGUAGES AND SECOND LANGUAGE LEARNING 3 Credit Hours

(Cross-listed with ENG 63047)(Slashed with ENG 83047) Theory and practice of language education for heritage language speakers. Ethnic, minority, ancestral and community languages and language practices are explored with implications for second and additional language learning in English, foreign language, bilingual education.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

MCLS 60625 SOCIOLINGUISTICS 3 Credit Hours

(Cross-listed with ENG 63034)(Slashed with ENG 73034) Discussion of sociolinguistic approaches to understanding literacy, language in workplaces and classrooms and societal multilingualism. Survey of trends in sociolinguistic thought and method.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 60661 THEORIES IN SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Slashed with ENG 63033 and ENG 73033) This course surveys the major theoretical approaches to language acquisition, concentrating on second language acquisition and the relationship between acquisition/learning research and second language teaching approaches.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 60663 SECOND LANGUAGE CURRICULUM AND ASSESSMENT 3 Credit Hours

(Cross-listed with ENG 63039)(Slashed with ENG 83039 and MCLS 80663) Students study second language curriculum and assessment design and current issues, including oral proficiency testing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 60664 SECOND LANGUAGE READING 3 Credit Hours

(Cross-listed with ENG 63044)(Slashed with ENG 83044) Addresses a wide variety of topics related to second language reading, including theoretical perspectives, the process of learning to read, models of how reading happens, comprehension, fluency, discourse structures, strategy use and vocabulary acquisition. Teaching issues related to second language reading are also addressed directly, namely assessment and curriculum building.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

MCLS 60665 SECOND LANGUAGE WRITING 3 Credit Hours

(Cross-listed with ENG 63043)(Slashed with ENG 83043) Theory and practice of teaching second language writing. Topics include current and historic approaches to second language writing, approaches to tutoring international students in writing centers, teacher and peer response, error correction and technology of second language writing instruction.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 63049 SECOND LANGUAGE RESEARCH METHODS 3 Credit Hours

(Cross-listed with ENG 63049)(Slashed with ENG 83049) This course provides students with skills for reading, interpreting and conducting research studies investigating second/foreign language teaching, learning and/or use. Students learn about quantitative and qualitative research methods commonly used for second language research. Students also conduct a research project.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 70510 INTRODUCTION TO NATURAL LANGUAGE PROCESSING 3 Credit Hours

(Cross-listed with CS 70510)(Slashed with CS 40510, CS 50510, MCLS 40510 and MCLS 50510) This course provides an introduction to natural language processing, discusses methods to analyze translation product and translation process data and applies and evaluates machine learning methods on natural language data. Students use tools to transform texts into structured representations that are elementary for numerous applications, artificial intelligence, data analytics and predictive modeling. Knowledge of Python is strongly encouraged, but not required.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 80622 TEACHING LITERATURE AND CULTURE 3 Credit Hours

(Cross-listed with ENG 83038)(Slashed with ENG 63038 and MCLS 60622) Students explore theories of literature and culture teaching as well as strategies for teaching literature and culture.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 80623 SOCIOCULTURAL THEORY AND FOREIGN AND SECOND LANGUAGE ACQUISITION 3 Credit Hours

(Cross-listed with ENG 83048)(Slashed with ENG 63048 and MCLS 60623) The foundations of sociocultural theory and its applications to the second and foreign language classroom.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MCLS 80663 SECOND LANGUAGE CURRICULUM AND ASSESSMENT 3 Credit Hours

(Cross-listed with ENG 83039)(Slashed with ENG 63039 and MCLS 60663) Students study second language curriculum and assessment design and current issues, including oral proficiency testing.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Russian (RUSS)**RUSS 12201 ELEMENTARY RUSSIAN I 4 Credit Hours**

An introduction to the Russian language in the context of Russian cultures.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

RUSS 12202 ELEMENTARY RUSSIAN II 4 Credit Hours

A continuation of the introduction to the Russian language in the context of Russian cultures.

Prerequisite: RUSS 12201.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

RUSS 22201 INTERMEDIATE RUSSIAN I 3 Credit Hours

Continued development of speaking, listening, reading and writing skills using a variety of cultural materials.

Prerequisite: RUSS 12202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 22202 INTERMEDIATE RUSSIAN II 3 Credit Hours

Continuation of RUSS 22201 in the development of speaking, listening, reading and writing in a variety of Russian cultural contexts.

Prerequisite: RUSS 22201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 22215 RUSSIAN PHONETICS AND DICTION 3 Credit Hours

Study of the Russian sound system with special emphasis on pronunciation and intonation. Application of the international phonetic alphabet to Russian.

Prerequisite: RUSS 12202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 32201 INTENSIVE RUSSIAN GRAMMAR 3 Credit Hours

A systematic approach to Russian grammar and syntax.

Prerequisite: RUSS 22202 .

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 32211 COMPOSITION AND CONVERSATION 3 Credit Hours

Introduction to advanced oral and written discourse strategies in Russian.

Prerequisite: RUSS 22202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 32230 TRANSLATION PRACTICE: RUSSIAN (ELR) (WIC) 3 Credit Hours

Theory and practice course that discusses translation theory and emphasizes Russian-to-English translation of selected texts for business, technology, medicine, law, literature and audiovisual media.

Prerequisite: RUSS 22202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

RUSS 32240 CONVERSATION FOR BUSINESS AND SPECIAL PURPOSES: RUSSIAN 3 Credit Hours

Introduction to the special vocabulary of business and other special subject areas. Course introduces the concept of language for special purposes and emphasizes the use of special vocabulary in conversations and oral presentations in business and other related settings.

Prerequisite: RUSS 22202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 32303 MODERN WRITERS (ELR) (WIC) 3 Credit Hours

Reading and analysis of modern Russian plays and stories.

Prerequisite: RUSS 22202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

RUSS 32320 PROSE OF VLADIMIR NABOKOV 3 Credit Hours

A study of selected prose works of Russian-American author Vladimir Nabokov. This course is taught in English and is open to students in any program.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 32421 RUSSIAN CIVILIZATION (ELR) (WIC) 3 Credit Hours

A survey of Russian cultural history and intellectual life in the pre-Soviet, Soviet, and post-Soviet periods.

Prerequisite: RUSS 32201 or RUSS 32211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

RUSS 32501 RUSSIAN LITERATURE IN ENGLISH 3 Credit Hours

Survey of major authors, movements and works of Russian literature from the early nineteenth century to present in English translation. No knowledge of Russian is required.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 42095 SPECIAL TOPICS IN RUSSIAN LANGUAGE AND LITERATURES 1-4 Credit Hours

(Repeatable for credit) Topic varies per course offering; to be announced in schedule of classes.

Prerequisite: Senior standing.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

RUSS 42096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with Russian language or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Russian (RUSS) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

RUSS 42211 ADVANCED COMPOSITION AND CONVERSATION 3 Credit Hours

(Slashed with RUSS 52211) Advanced practice in written and oral expression in Russian through engagement with visual media.

Prerequisite: RUSS 32211 or RUSS 32201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 42216 RUSSIAN POPULAR CULTURE 3 Credit Hours

This course offers students a chance to familiarize themselves with prominent figures in Russian culture of the post-Soviet period, including journalists, actors, musicians, athletes, film directors, and other cultural personalities. The students will engage in thinking and communicating across a range of disciplines, such as history, literature, sociology, and anthropology. The course focuses on students' advanced oral and written production. Learners will acquire cultural knowledge and analyze developments in post-Soviet Russian culture while expanding their vocabulary and structures.

Prerequisite: RUSS 32201 or RUSS 32211.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

RUSS 42240 BUSINESS AND SPECIAL TEXTS: RUSSIAN 3 Credit Hours

Survey of typical business-related text types in Russian. Focus on reading and understanding specialized business-related texts and on the translation and composition of selected special texts in Russian.

Prerequisite: Any 30000-level Russian course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 42351 SURVEY OF RUSSIAN AND SOVIET LITERATURE 3 Credit Hours

(Slashed with RUSS 52351) Introduces students to the major movements and authors of Russian, Soviet and post-Soviet literature, from the late eighteenth century to today.

Prerequisite: 3 credit hours of upper-division Russian courses (RUSS 30000 or 40000 levels).

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 52211 ADVANCED COMPOSITION AND CONVERSATION 3 Credit Hours

(Slashed with RUSS 42211) Advanced practice in written and oral expression in Russian.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 52351 SURVEY OF RUSSIAN AND SOVIET LITERATURE 3 Credit Hours

(Slashed with RUSS 42351) Introduces students to the major movements, authors and works of Russian, Soviet and post-Soviet literature, beginning in the late eighteenth century and ending in the early twenty first century.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

RUSS 62010 THE PRACTICE OF RUSSIAN TRANSLATION 2 Credit Hours

Students apply linguistic and communication science concepts to case studies of language mediation.

Prerequisite: Graduate standing.

Corequisite: TRST 60010.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

RUSS 62091 SEMINAR IN RUSSIAN TRANSLATION 3 Credit Hours

(Repeatable for credit) An in-depth exploration of methods and resources for specialized Russian translation projects currently of concern in the translation industry. Topics may focus on various sub-domains including law, finance, medicine, technology, cybersecurity, media translation, subtitling, etc.

Prerequisite: RUSS 62010 and TRST 60010; and graduate studies.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

RUSS 62098 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with Russian language, translation or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

RUSS 62979 CASE STUDY IN TRANSLATION 3 Credit Hours

Students are responsible for a major translation and a terminology glossary, as well as a critical analysis of the source text, the problems encountered during the translation process and the strategies used to solve them.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Satisfactory/Unsatisfactory

Spanish (SPAN)

SPAN 18201 ELEMENTARY SPANISH I 4 Credit Hours

An introduction to the Spanish language in the context of Hispanic cultures.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

SPAN 18202 ELEMENTARY SPANISH II 4 Credit Hours

A continuation of the introduction to the Spanish language in the context of Hispanic cultures.

Prerequisite: SPAN 18201.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

SPAN 18489 INTERNATIONAL EXPERIENCE (ELR) 1-4 Credit Hours

(Repeatable for credit) This course is a faculty-led experience in a Spanish-speaking country that involves both in-class and out-of-class experiences. Students are placed into an appropriate level language course according to their Common European Framework of References for Language Proficiency (CEFR) score. During class, students study grammar, vocabulary and culture and engage in reading, writing, listening and speaking activities as in a traditional language class. Outside of class, students tour cultural sites and participate in various cultural activities.

Prerequisite: SPAN 18201.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

SPAN 28201 INTERMEDIATE SPANISH I 3 Credit Hours

A continuation of the development of listening, speaking, reading and writing skills using a variety of material on the Spanish language in the context of Hispanic cultures.

Prerequisite: SPAN 18202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

SPAN 28202 INTERMEDIATE SPANISH II 3 Credit Hours

A continuation of the development of listening, speaking, reading and writing skills using a variety of material on the Spanish language in the context of Hispanic cultures and specific areas of study like culture, business, justice, etc.

Prerequisite: SPAN 28201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Foreign Language

SPAN 28489 INTERNATIONAL EXPERIENCE (ELR) 1-4 Credit Hours

(Repeatable for credit) This course is a faculty-led experience in a Spanish-speaking country that involves both in-class and out-of-class experiences. Students are placed into an appropriate level language course according to their Common European Framework of References for Language Proficiency (CEFR) score. During class, students study grammar, vocabulary and culture and engage in reading, writing, listening and speaking activities as in a traditional language class. Outside of class, students tour cultural sites and participate in various cultural activities.

Prerequisite: SPAN 18202.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

SPAN 38211 SPANISH GRAMMAR AND COMPOSITION 3 Credit Hours

This course focuses on progressively increasing grammatical competence to communicate in writing through the development of skills to describe, narrate, expose and create arguments on general interest, and academic topics.

Prerequisite: SPAN 28202 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 38213 SPANISH READING AND CONVERSATION 3 Credit Hours

This course will provide continuous opportunities to practice Spanish based on selected non-literary and literary readings (such as poems, essays, short stories, theater, and short novels) and film. The readings and films cover diverse topics, such as art, politics, history, culture, and literature. We will concentrate on building vocabulary, reading skills, speaking and listening skills, reviewing important grammatical structures, and practicing the analysis of literature, culture, and current events.

Prerequisite: SPAN 28202 with a minimum C- grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 38215 SPANISH PHONETICS AND DICTION 3 Credit Hours

Study of the modern Spanish language sounds and practical application through extensive interactive listening and speaking activities addressing various Hispanic culture.

Prerequisite: SPAN 28202 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 38230 TRANSLATION PRACTICE: SPANISH (ELR) (WIC) 3 Credit Hours

Theory and practice course that discusses translation theory and emphasizes Spanish-to-English translation of selected texts for business, technology, medicine, law, literature and audiovisual media.

Prerequisite: SPAN 28202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

SPAN 38240 CONVERSATION FOR BUSINESS AND SPECIAL PURPOSES: SPANISH 3 Credit Hours

This course introduces students to concepts, specialized vocabulary, and social-, cultural- and economic- considerations when engaging in interactions with Spanish speakers in business and other professional settings. Some of the business topics include globalization, types of businesses and industries, organizational structures, leadership, management, personnel, banking and finance, accounting, economics, marketing and advertising, the business office, technology, ethics, and business laws. Topics in cross-cultural communication include etiquette and socio-pragmatic conventions, solidarity and deference, directness and indirectness, language variation, non-verbal communication, personalism, individualism, cultural priorities, management styles, establishing trust, and equality and equity in the workplace. While students will engage in background reading on the business and cultural topics, in this first of the two-course Business Spanish series, emphasis will be on developing interpersonal-, presentational- and interpretive communication skills mainly in the oral and aural modalities. Course materials, activities and assessments will be carried out within the framework of World-Readiness Standards for Learning Languages (National Standards Collaborative Board) and the "5 C's": Communication, Cultures, Connections, Comparisons and Communities.

Prerequisite: SPAN 28202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 38291 SEMINAR IN SPANISH FOR THE PROFESSIONS 1-4 Credit Hours

(Repeatable for credit) A variable topics course designed to advance students' proficiency in Spanish in specialized areas such as business, communication, education, healthcare, hospitality, sciences, international relations, human services, advertising, journalism, technology and other fields in which there is currently a high demand for bilingual English-Spanish speakers. The class conforms to the World Readiness Standards for Learning Languages: communication, comparisons, cultures, connections and communities; and aims to increase students' competency across all these dimensions. Course focuses on oral and written communication.

Prerequisite: SPAN 28202.

Schedule Type: Seminar

Contact Hours: 1-4 other

Grade Mode: Standard Letter

SPAN 38303 MEDICAL SPANISH TRANSLATION AND INTERPRETING 3 Credit Hours

An introduction to medical translation and interpreting, also known as healthcare translation and interpreting. Sociolinguistic, legal, and pragmatic dimensions of translation, cross-cultural health literacy, intercultural competency, text analysis, common medical text types and basic terminology; text production in English of Spanish medical documents, strategies of research, documentation and transfer. The rudiments of interpreting in health care environments; protocol, ethics, and credentialing in the language mediation industry; public health policy as it affects Latino and Latina populations. Spanish-English, English-Spanish language combination. Note: translation refers to written texts; interpreting to spoken language.

Prerequisite: SPAN 28202.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 38330 EARLY SPANISH LITERATURE (ELR) (WIC) 3 Credit Hours

Outline of development, reading of representative works to 1700.

Prerequisite: SPAN 38211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

SPAN 38331 RECENT SPANISH LITERATURE (ELR) (WIC) 3 Credit Hours

Outline of development, reading of representative works 1700 present.

Prerequisite: SPAN 38211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

SPAN 38334 EARLY SPANISH-AMERICAN LITERATURE (ELR) (WIC) 3 Credit Hours

Outline of development, reading of representative works including indigenous literature, 1492-1882.

Prerequisite: SPAN 38211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

SPAN 38335 RECENT SPANISH-AMERICAN LITERATURE (ELR) (WIC) 3 Credit Hours

Outline of the development of modern Spanish-American literature (1882 to the present). Reading of representative works.

Prerequisite: SPAN 38211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

SPAN 38421 CIVILIZATION OF SPAIN 3 Credit Hours

General survey of evolution of Spanish civilization from antiquity to present day.

Prerequisite: SPAN 38211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 38424 CULTURE AND CIVILIZATION OF LATIN AMERICA 3 Credit Hours

This course focuses on a study of the historical and cultural development of Latin America, with emphasis on Spanish America, as reflected in its geography, history, art, political and social institutions encompassing from Pre-Hispanic times to the present.

Prerequisite: SPAN 38211 or SPAN 38213.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 38489 INTERNATIONAL EXPERIENCE (ELR) 1-4 Credit Hours

(Repeatable for credit) This course is a faculty-led experience in a Spanish-speaking country that involves both in-class and out-of-class experiences. Students are placed into an appropriate level language course according to their Common European Framework of References for Language Proficiency (CEFR) score. During class, students study grammar, vocabulary and culture and engage in reading, writing, listening and speaking activities as in a traditional language class. Outside of class, students tour cultural sites and participate in various cultural activities.

Prerequisite: One Spanish (SPAN) upper-division course (30000 or 40000 level).

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

SPAN 38912 SPANISH LINGUISTICS: WORDS, ROOTS AND AFFIXES 3 Credit Hours

Through readings, lectures, multimedia, discourse analysis and language-production tasks, this course in Spanish morphology provides students with the tools to expand their vocabulary exponentially through the application of word-building rules and conventions. Students learn how to predict the form and meaning of Spanish words they have not yet encountered by applying derivational rules such as forming nouns and adjectives from verbs, adjectives from nouns and adverbs from adjectives and nouns. Additionally, students learn how Spanish uses prefixes and suffixes, for example, those that express negation, opposition, repetition, location, size, purpose or affect to alter a word's basic meaning, and how new words come into the Spanish language through processes like word coinage and lexical borrowing. Finally, students are introduced to the topic of lexical variation as it occurs over time, across regions and that resulting from language contact; social- and situational factors; technological innovation; and speakers' identity and preferences.

Prerequisite: SPAN 28201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48095 SELECTED TOPICS IN SPANISH 3 Credit Hours

(Repeatable for a maximum of 9 credit hours) Topic announced in Schedule of Classes.

Prerequisite: 9 hours above 20000-level of Spanish courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with Spanish language or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Spanish (SPAN) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

SPAN 48215 ADVANCED SPANISH COMPOSITION AND CONVERSATION 3 Credit Hours

This course focuses on descriptive, summary, narrative, expository and argumentative oral and written styles addressing topics dealing with diverse areas of Hispanic culture as presented through literary and nonfiction texts.

Prerequisite: SPAN 38211 and SPAN 38213; and one additional Spanish (SPAN) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48216 CONTEMPORARY HISPANIC CULTURE 3 Credit Hours

A study of selected sociological, political, cultural or economic issues in the contemporary Hispanic world.

Prerequisite: 6 hours from 30000-level Spanish courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48240 BUSINESS AND SPECIAL TEXTS: SPANISH 3 Credit Hours

Survey of the typical text types of business in the Spanish culture and language. Practice sessions focus on reading and understanding specialized texts and on the translation and composition of selected special texts in Spanish.

Prerequisite: SPAN 38211.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48291 SEMINAR IN GARCÍA LORCA 3 Credit Hours

(Slashed with SPAN 58291) (Repeatable for credit) This seminar is an in-depth interdisciplinary study of Federico García Lorca's literary works and their film adaptations in their socio-historical, artistic and cultural contexts. Thematic approaches to Lorca's works and person cover a variety of study topics such as political repression and social class, honor and desire, religion and taboo, homoeroticism and gay identity, the subversion of women gender roles and sexuality in the patriarchal society, independently or along with others. Books, articles, documentaries and films situate Lorca's works within the historical, socio-political and cultural contexts that shaped Spain prior to the Civil War. Critical works provide the necessary framework for the analysis of the primary sources.

Prerequisite: SPAN 38211 and SPAN 38213.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

SPAN 48314 CINEMA AND CULTURE: SPANISH AMERICA TODAY 3 Credit Hours

(Slashed with SPAN 58314) This course explores contemporary Spanish America through Spanish-language feature films and authentic cultural texts. Topics include politics, education, religion, indigenous traditions, economic issues, music, art and family life. Each course unit examines one film and interviews, cultural notes and articles on the topic.

Prerequisite: SPAN 38211 or SPAN 38213 or SPAN 38331 or SPAN 38334 or SPAN 38335.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48325 IDENTITY, POLITICS AND GENDER IN PUERTO RICAN FICTION 3 Credit Hours

(Slashed with SPAN 58325) This course focuses on critical analyses of a diverse corpus of literary pieces written by prominent Puerto Rican authors. It addresses the following topics: the jíbaro identity vis a vis the political and cultural practices of americanización (Americanization), the migratory waves from the countryside to San Juan and the United States, and constructs of gender and LGBTQ identity articulated in the literary discourse.

Prerequisite: SPAN 38421 or SPAN 38424.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48376 CONTEMPORARY SPANISH-AMERICAN SHORT STORY 3 Credit Hours

The development of the Spanish-American short story from 1917 to the present.

Prerequisite: 6 hours from SPAN 38330 and SPAN 38331 and SPAN 38334 and SPAN 38335.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48378 U.S. LATINA/O WRITERS 3 Credit Hours

The course focuses on a representative selection of literary pieces in Spanish by recent U.S. Latino writers developing oral and listening skills in Spanish and strengthening critical thinking on various cultural and literary matters.

Prerequisite: SPAN 38211 and SPAN 38213; and one of the following: SPAN 38330 or SPAN 38331 or SPAN 38334 or SPAN 38335.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48391 SEMINAR IN DETECTIVE FICTION IN SPANISH 3 Credit Hours

(Slashed with SPAN 58391) (Repeatable for credit) Students read and view a selection of detective fiction texts and films. They become familiar with detective fiction theory and cultural and political issues, such as dictatorships, national movements, class, gender, and race issues.

Prerequisite: Two upper-division (30000 level and 40000 level) courses in Spanish.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

SPAN 48422 EARLY SPANISH-AMERICAN DISCOURSE 3 Credit Hours

This course provides a critical analysis of cultural and literary issues on texts dealing with early colonial Spanish-American expression.

Prerequisite: SPAN 38213 and SPAN 38334.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48424 SPANISH-AMERICAN CULTURE THROUGH SONGS 3 Credit Hours

(Slashed with SPAN 58424) The main objective of this course is to critically analyze a selection of songs organized by topics that address major cultural trends, changes or movements in Spanish America and regions in the US known for their Latino presence. Classes consist of close analysis of lyrics, their musical arrangement and cultural representations connected to historical events and ethnic identities as discussed in supporting documents. Some activities involve face-to-face and LMS group discussions on topics like similarities and differences among Spanish-American countries, Spanish-American Indigenous nations, Hispanic/Latino in the US, family ties, the role of women, socio-political movements, customs and folklore, literature and art.

Prerequisite: SPAN 38211 or SPAN 38213.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

SPAN 48491 SEMINAR IN MODERN SPAIN 3 Credit Hours

(Slashed with SPAN 58491) In-depth study of modern Spain, including themes such as art, literature, film, history, politics, social movements, and other manifestations of modern Spain. Historical and political topics such as the Spanish transition to democracy, the post-transition disillusion, neoliberalism in Spain, Nationalisms of the periphery, and social movements like the "Indignados" or 15M may be covered. Artistic and cultural movements and genres such as "La movida Madrileña," the popular novel, and the detective novel and film noir may also be covered.

Prerequisite: Minimum C grade in three SPAN 30000-level (or higher) courses.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48900 INTRODUCTION TO HISPANIC LINGUISTICS 3 Credit Hours

(Slashed with SPAN 58900) This course introduces students to the major areas and subareas of theoretical and applied linguistics with examples taken from varieties of the Spanish language. Students will learn how linguists describe and analyze the features and patterns of the Spanish language both in the abstract and within social, discursive contexts. Students will learn about the predominant methods for gathering and analyzing Spanish language data in the various fields and subfields of Hispanic linguistics.

Prerequisite: SPAN 38211 or SPAN 38215 or SPAN 38912.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 48991 SEMINAR IN HISPANIC LINGUISTICS 3 Credit Hours

(Repeatable for credit) (Slashed with SPAN 58991) In this course, students will learn about the patterns of Spanish language structure and usage as investigated by scholars in specific fields of linguistics. Students will critically examine theoretical frameworks and empirical studies that describe and analyze the Spanish language both in the abstract and as used in real-life communication by native- and non-native speakers of Spanish.

Prerequisite: Two courses from the following: SPAN 38211, SPAN 38213, SPAN 38215, SPAN 38912, SPAN 48215.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58095 SELECTED TOPICS IN SPANISH 3 Credit Hours

(Repeatable for a maximum of 15 credit hours) Topic to be announced in semester schedule of classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58216 CONTEMPORARY HISPANIC CULTURE 3 Credit Hours

A study of selected sociological, political, cultural or economic issues in the contemporary Hispanic world.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58291 SEMINAR IN GARCÍA LORCA 3 Credit Hours

(Slashed with SPAN 48291) (Repeatable for credit) This seminar is an in-depth interdisciplinary study of Federico García Lorca's literary works and their film adaptations in their socio-historical, artistic and cultural contexts. Thematic approaches to Lorca's works and person cover a variety of study topics such as political repression and social class, honor and desire, religion and taboo, homoeroticism and gay identity, the subversion of women gender roles and sexuality in the patriarchal society, independently or along with others. Books, articles, documentaries and films situate Lorca's works within the historical, socio-political and cultural contexts that shaped Spain prior to the Civil War. Critical works provide the necessary framework for the analysis of the primary sources.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

SPAN 58314 CINEMA AND CULTURE: SPANISH AMERICA TODAY 3 Credit Hours

(Slashed with SPAN 48314) This course explores contemporary Spanish America through Spanish-language feature films and authentic cultural texts. Topics include politics, education, religion, indigenous traditions, economic issues, music, art and family life. Each course unit examines one film and interviews, cultural notes and articles on the topic.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58325 IDENTITY, POLITICS AND GENDER IN PUERTO RICAN FICTION 3 Credit Hours

(Slashed with SPAN 48325) This course focuses on critical analyses of a diverse corpus of literary pieces written by prominent Puerto Rican authors. It addresses the following topics: the jíbaro identity vis a vis the political and cultural practices of americanización (Americanization), the migratory waves from the countryside to San Juan and the United States, and constructs of gender and LGBTQ identity articulated in the literary discourse.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58376 CONTEMPORARY SPANISH-AMERICAN SHORT STORY 3 Credit Hours

The development of the Spanish-American short story from 1917 to the present.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58378 U.S. LATINA/O WRITERS 3 Credit Hours

The course focuses on a representative selection of literary pieces in Spanish by recent U.S. Latino writers developing oral and listening skills in Spanish and strengthening critical thinking on various cultural and literary matters.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58391 SEMINAR IN DETECTIVE FICTION IN SPANISH 3 Credit Hours

(Slashed with SPAN 48391) (Repeatable for credit) Students read and view a selection of detective fiction texts and films. They become familiar with detective fiction theory and cultural and political issues, such as dictatorships, national movements, class, gender, and race issues.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

SPAN 58422 EARLY SPANISH-AMERICAN DISCOURSE 3 Credit Hours

This course provides a critical analysis of cultural and literary issues on texts dealing with early colonial Spanish-American expression.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58424 SPANISH-AMERICAN CULTURE THROUGH SONGS 3 Credit Hours

(Slashed with SPAN 48424) The main objective of this course is to critically analyze a selection of songs organized by topics that address major cultural trends, changes or movements in Spanish America and regions in the US known for their Latino presence. Classes consist of close analysis of lyrics, their musical arrangement and cultural representations connected to historical events and ethnic identities as discussed in supporting documents. Some activities involve face-to-face and LMS group discussions on topics like similarities and differences among Spanish-American countries, Spanish-American Indigenous nations, Hispanic/Latino in the US, family ties, the role of women, socio-political movements, customs and folklore, literature and art.

Prerequisite: Graduate Standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58491 SEMINAR IN MODERN SPAIN 3 Credit Hours

(Slashed with SPAN 48491) In-depth study of late 20th and early 21st-century Spain, including themes such as art, literature, film, history, politics, social movements, and other manifestations of contemporary Spain. Historical and political topics such as the Spanish transition to democracy, the post-transition disillusion, neoliberalism in Spain, Nationalisms of the periphery, and social movements like the "Indignados" or 15M may be covered. Artistic and cultural movements and genres such as "La movida Madrileña," the popular novel, and the detective novel and film noir may also be covered.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58900 INTRODUCTION TO HISPANIC LINGUISTICS 3 Credit Hours

(Slashed with SPAN 48900) This course introduces students to the major areas and subareas of theoretical and applied linguistics with examples taken from varieties of the Spanish language. Students will learn how linguists describe and analyze the features and patterns of the Spanish language both in the abstract and within social, discursive contexts. Students will learn about the predominant methods for gathering and analyzing Spanish language data in the various fields and subfields of Hispanic linguistics.

Prerequisite: Graduate Standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 58991 SEMINAR IN HISPANIC LINGUISTICS 3 Credit Hours

(Repeatable for credit) (Slashed with SPAN 48991) In this course students will learn about the patterns of Spanish language structure and usage as investigated by scholars in specific fields of linguistics. Students will critically examine theoretical frameworks and empirical studies that describe and analyze the Spanish language both in the abstract and as used in real-life communication by native- and non-native speakers of Spanish.

Prerequisite: Graduate Standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 68010 THE PRACTICE OF SPANISH TRANSLATION 2 Credit Hours

Students apply linguistic and communication science concepts to case studies of language mediation.

Prerequisite: Graduate standing.

Corequisite: TRST 60010.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

SPAN 68091 SEMINAR IN SPANISH TRANSLATION 3 Credit Hours

(Repeatable for credit) An in-depth exploration of methods and resources for specialized translation projects currently of concern in the translation industry across the Spanish-speaking world. Topics may focus on various sub-domains including law, finance, medicine, technology, cybersecurity, media translation, subtitling, etc.

Prerequisite: SPAN 68010 and TRST 60010; and graduate studies.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 68095 SELECTED TOPICS 3 Credit Hours

(Repeatable for credit) Selected topics on Spanish literature or linguistics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 68098 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with Spanish language, translation or culture carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

SPAN 68199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

SPAN 68215 ADVANCED SPANISH COMPOSITION AND CONVERSATION 3 Credit Hours

Focuses on description, summary, narration, exposition and argumentation on topics dealing with diverse areas of Hispanic culture as presented through literary and non-fiction texts.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 68231 TRANSLATION INTO SPANISH 3 Credit Hours

Provides advanced intensive practice in the translation of a variety of texts into Spanish. Translation issues and appropriate strategies are identified. Also provides practice in the evaluation of translations, the identification of professional issues, and an advanced review of linguistic and grammatical aspects of Spanish as they apply to translation.

Class meetings are conducted in a workshop format based on weekly assignments of readings and translation exercises.

Prerequisite: TRST 60010 and SPAN 68010; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SPAN 68299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: SPAN 68199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

SPAN 68979 CASE STUDY IN TRANSLATION 3 Credit Hours

Students will be responsible for a major translation and a terminology glossary as well as a critical analysis of the source text, the problems encountered during the translation process and the strategies used to solve them.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Satisfactory/Unsatisfactory

Translation Studies (TRST)

TRST 20009 MULTILINGUAL INFORMATION LIFECYCLE 3 Credit Hours

Introduction to the multilingual information cycle, including general technological issues, text preparation, translation in markup languages, computer-assisted translation tools and multilingual information flow for multilingual and multicultural work. Course is taught in English.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 30230 APPROACHES TO TRANSLATION 3 Credit Hours

Introduction to foreign language translation. Introduces concepts, resources, principles and techniques of text analysis and translation strategies applicable to various types of texts.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 30330 CROSS-LANGUAGE MEDIATION 3 Credit Hours

An exploration of textual and contextual factors impacting cross-language mediation.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 40091 SEMINAR IN TRANSLATION STUDIES 3 Credit Hours

(Repeatable for credit) Variable topics covering translation and multilingual communication.

Prerequisite: None.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

TRST 40095 SPECIAL TOPICS IN TRANSLATION STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with TRST 50095 and TRST 70095) Content varies with the topic, which may include any aspect of translation studies (practical or theoretical). Topics are taught in English and some topics may be team taught.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

TRST 40096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Individual research on a topic dealing with translation studies carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: One Translation Studies (TRST) upper-division (30000 or 40000 level) course with a minimum B grade; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

TRST 50009 THEORY AND PRACTICE OF INTERPRETING 3 Credit Hours

(Slashed with TRST 70009) Survey of the theory and practice of unimodal (spoken word) interpreting in its multiple contexts: conference, medical, judicial, liaison, and media interpreting, with an emphasis on community interpreting. Stakeholders, discourses, modalities, and environments; characteristics of interpreted speech; identities and intervenient roles of interpreters (coordinators, co-participants, diplomats); professionalization and 'volunteerization'; ethics and protocols; research paradigms and future directions; quality and assessment; legal frameworks and language policy; histories of interpreting. Pedagogies of dialogue interpreting [process, interactive, demand-control schema; cognitive and effort models]; memory; technologies; terminology. Course conducted in English.

Prerequisite: Graduate standing; Translation major.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 50031 PROFESSIONAL EDITING FOR TRANSLATORS 3 Credit Hours

Provides practical instruction in the editing of translated texts representing a variety of text types. Course covers the skills and techniques that are required for all stages of the editing process and using the best practices of professional translation. Topics include the stages of editing, from rough translation to finished draft; electronic tools for multilingual translation editing; translation style guides; and pre- and post-editing of machine translation. Interactive lecture and workshop formats.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 50095 SPECIAL TOPICS IN TRANSLATION STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with TRST 40095 and TRST 70095) Content varies with the topic, which may include any aspect of translation studies (practical or theoretical). Topics are taught in English and some topics may be team taught.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

TRST 60001 GRADUATE RESEARCH AND WRITING IN TRANSLATION STUDIES 3 Credit Hours

Individual instruction and assistance with problems encountered in academic research and writing in translation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 60009 INTRODUCTION TO TRANSLATION TECHNOLOGY 3 Credit Hours

This course provides an in-depth exploration of the principles, processes and technologies involved with managing the document life cycle within a multilingual environment. It examines the various stages that documents undergo both online and offline, from authoring, management and retrieval to translation, publishing and archiving, along with the tools, challenges and requirements at each phase. Key concepts for translation technologies, such as translation memory systems and terminology management, are also introduced. Through a series of modules and hands-on activities, students explore the impact of information technology on content creation and translation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 60010 THEORY OF TRANSLATION AND INTERPRETING 2 Credit Hours

Introduction to the theoretical bases and methods of language mediation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

TRST 60011 TERMINOLOGY AND COMPUTER APPLICATIONS IN TRANSLATION 3 Credit Hours

This course provides students with an introduction to translation technology and software tools used within the translation industry as part of translation workflows. The course surveys the three main forms of translation technology: terminology management systems, translation memories and machine translation. The course first introduces the fundamental principles of terminology management and lays out best practices for creating and maintaining terminological databases (termbases). The course then turns to translation memories, databases created from aligned parallel corpora that allow translators to reuse past translations. Finally, the role of machine translation and AI in human translation workflows is examined, focusing specifically on human-machine interaction in the workflow, including the activity of post-editing. The course concludes with an examination of how translation technology affects translation quality, the management of translation technology for projects and predictions for the future of translation technology within the language industry.

Prerequisite: TRST 60009; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 60012 SOFTWARE AND WEBSITE LOCALIZATION 3 Credit Hours

This course introduces students to the principles, techniques and best practices involved with the internationalization and localization of various types of digital content, including software, websites, web pages and graphics. Localization entails adapting content related to a product, service or idea to suit the language and culture of a specific market or locale. As a rapidly growing industry, localization is expanding at an annual rate of 6.5-7.5%, making it a thriving field with excellent career prospects for students interested in language, culture and technology. Throughout this course, students gain a solid understanding of the central concepts and terminology used within the field of localization. They also learn about the formal standards and best practices for creating, maintaining and sharing resources generated by translation and localization technologies. Alongside essential theoretical perspectives and principles, the course provides hands-on experience with contemporary translation and localization practices. Students work with up-to-date computer-assisted translation (CAT) tools, as well as text and multimedia editing platforms to apply their learning within practical contexts. By bridging the gap between theory and practice, projects and activities involve practical exercises based on the concepts, technologies and processes discussed during class.

Prerequisite: TRST 60011 with a minimum B grade; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 60013 LANGUAGE PROJECT MANAGEMENT 3 Credit Hours

This course offers an introduction to the knowledge, skills, tools and techniques of project management and applies these concepts within the language industry context. The language industry is predominantly outsourced, digitized and project based, which means that regardless of the career path on which you embark, translation and localization projects have a major influence on your role and how you conduct your work. This course provides students with an analytical framework, as well as pragmatic tools and techniques to navigate work within the industry and build broadly applicable expertise throughout time. After all, project management is the "art and science of getting stuff done." Project management not only equips students with the tools to get work done and lead and manage diverse teams of people effectively, but also helps them build an understanding of the core concepts and dynamics of projects. This is true regardless of whether you work within the language industry or another profession entirely.

Prerequisite: TRST 60011 and TRST 60012 with a minimum B grade; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 60031 INTERCULTURAL COMMUNICATION IN THE LANGUAGE INDUSTRY 3 Credit Hours

The role and impact of intercultural communication models, theories and approaches in shaping language industry dynamics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 60040 LITERARY AND CULTURAL TRANSLATION 3 Credit Hours

Translation of documents from a variety of literary and cultural sources, including literature, expository and journalistic prose, scholarly treatises and essays.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 60092 TRANSLATION INTERNSHIP 1-3 Credit Hours

(Repeatable for credit) Supervised practical experience in translation or localization or a related role at a cooperating organization, subject to availability. The internship may be undertaken on-site or remotely. Students must have completed TRST 60011. Requires preparation of an internship report or portfolio connecting academic coursework to on-the-job experiences.

Prerequisite: TRST 60011; and graduate standing.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

TRST 60095 SPECIAL TOPICS IN TRANSLATIONS STUDIES 1-3 Credit Hours

(Repeatable for a maximum of 12 credit hours) Content varies with the topic, which may include any aspect of translation studies (practical or theoretical). Topics are taught in English and some topics may be team taught.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

TRST 60098 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activity on a topic dealing with translation studies carried out under the supervision of a faculty member. The work for this course should result in a paper, presentation or some other appropriate gradable product(s).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

TRST 60099 CAPSTONE PROJECT IN TRANSLATION 3 Credit Hours

Guided selection, completion, critically reflective analysis and defense of a professional-level translation or translation-related project.

Prerequisite: TRST 60010 and TRST 60011; and graduate standing.

Schedule Type: Project or Capstone

Contact Hours: 9 other

Grade Mode: Satisfactory/Unsatisfactory

TRST 60100 PRACTICE OF TRANSLATION 2 Credit Hours

Introductory course in which students translate a variety of non-specialized, nonfiction short texts in different domains; identify the most common semantic, syntactic, stylistic, cultural and discourse-level problems encountered in translation; and apply appropriate cognitive strategies.

Prerequisite: Graduate standing.

Pre/corequisite: TRST 60010.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

TRST 60199 THESIS I 2-6 Credit Hours

(Repeatable for credit) Write a thesis on a topic dealing with translation studies carried out under the supervision of a faculty member.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 6-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

TRST 60298 APPLIED TRANSLATION RESEARCH 1-3 Credit Hours

(Repeatable for credit) Research experience in translation or interpreting in a corporate, translation bureau or freelance setting, supervised by a faculty member.

Prerequisite: TRST 60010; and graduate standing.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

TRST 60299 THESIS II 2 Credit Hours

(Repeatable for credit) Write a thesis on a topic dealing with translation studies carried out under the supervision of a faculty member.

Prerequisite: TRST 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

TRST 60630 CAREER PATHS IN THE LANGUAGE INDUSTRY 3 Credit Hours

This course adopts a holistic approach to career management and planning in the language industry. It involves self-assessment of interests, values and skills and a deep understanding of career development theories and the job search process. Students gain insights into their own narratives, constructing new meanings and engaging in dynamic career exploration, and master using a range of career, vocational, educational, occupational and labor market information resources and systems. They develop the ability to integrate self-knowledge and industry awareness into their decision-making processes, enabling them to set meaningful goals and devise effective strategies to navigate career challenges in a complex global economy.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 64091 SEMINAR IN LITERARY AND CULTURAL TRANSLATION 3 Credit Hours

(Repeatable for credit) Translation of documents from a variety of literary and cultural sources, including literature, expository and journalistic prose, scholarly treatises and essays.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

TRST 65091 SEMINAR IN COMMERCIAL, LEGAL AND DIPLOMATIC TRANSLATION 3 Credit Hours

(Repeatable for credit) This course provides students with extensive practice translating a range of legal, commercial and diplomatic text genres from their language of specialization into English and developing methods for tackling unfamiliar specialized language. While translating, students create resources to develop knowledge of specific topics and use this knowledge to make informed translation decisions. Sharpening research skills is important because translators often encounter difficult concepts for which there are few reliable translation resources. Translators are also called upon to evaluate the output of other translators and machine translation. After translating, students reflect upon their personal translation process to better identify and allocate the resources needed to work effectively and efficiently.

Prerequisite: TRST 60010; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

TRST 65191 SEMINAR IN SCIENTIFIC, TECHNICAL AND MEDICAL TRANSLATION 3 Credit Hours

(Repeatable for credit) This course provides practice translating a wide range of scientific, technical and medical text genres from students' language of specialization into English. The importance of accuracy with these translation domains is perhaps as paramount as any writing could be, often meaning the difference between safety and disaster for equipment, or life and death for people. At the same time, translations for this domain help keep products and services flowing and properly branded all over the world. The skills learned throughout this course transfer not only to future courses, but also the work setting.

Prerequisite: TRST 60010; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

TRST 70002 THE LANGUAGE INDUSTRY 3 Credit Hours

Study of the socio-economic context of professional translation and the language services business sector. Includes in-depth study of the language industry drawing on industry analysis and business case studies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 70004 TRANSLATION PEDAGOGY 3 Credit Hours

Teaching methods and curriculum design for translation programs.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 70005 CURRENT TRENDS IN TRANSLATION STUDIES 3 Credit Hours

The principal goal of this course is to introduce the most influential and productive trends of translation studies research and theory shaping those trends. Students trace the development of these trends and their implications for future research through discussion of selected readings. Students develop and defend research projects for each of the trends discussed.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 70006 EMPIRICAL METHODS FOR TRANSLATION STUDIES 3 Credit Hours

Study of the methods and research designs used to conduct empirical research in translation, with an emphasis on experimental design of cross-language tasks; the use and analysis of bilingual verbal protocols; the application of new methods, such as keystroke-logging and eye-tracking; and the particular empirical and methodological issues involved in cross-language research data-gathering and statistical analysis.

Prerequisite: Translation studies major; and doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

TRST 70007 CORPORA IN TRANSLATION 3 Credit Hours

Exploration of corpus-based applications in translation studies research and the practice of translation. Competence in utilizing translation-oriented corpus-based tools and corpus building will be fostered.

Prerequisite: Translation studies major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 70008 TRANSLATION AND COGNITION 3 Credit Hours

Study of foreign language translation and interpreting from a cognitive science perspective. Includes discussion of current empirical research; application of selected models of cognition to problems in translation studies; and research design in translation process research.

Prerequisite: Translation studies major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 70009 THEORY AND PRACTICE OF INTERPRETING 3 Credit Hours

(Slashed with TRST 50009) Survey of the theory and practice of unimodal (spoken word) interpreting in its multiple contexts: conference, medical, judicial, liaison, and media interpreting, with an emphasis on community interpreting. Stakeholders, discourses, modalities, and environments; characteristics of interpreted speech; identities and intervenient roles of interpreters (coordinators, co-participants, diplomats); professionalization and 'volunteerization'; ethics and protocols; research paradigms and future directions; quality and assessment; legal frameworks and language policy; histories of interpreting. Pedagogies of dialogue interpreting [process, interactive, demand-control schema; cognitive and effort models]; memory; technologies; terminology. Course conducted in English.

Prerequisite: Doctoral standing; and Translation Studies major.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

TRST 70095 SPECIAL TOPICS IN TRANSLATION STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with TRST 40095 and TRST 50095)

Content varies with the topic, which may include any aspect of translation studies (practical or theoretical). Topics are taught in English and some topics may be team taught.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

TRST 80091 SEMINAR IN TRANSLATION STUDIES 3 Credit Hours
(Repeatable for credit) Seminar for doctoral students to present and discuss research related to specific areas of translation studies. May be taken for a total of 6 credit hours, either alone or in combination with TRST 80191.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

TRST 80095 SPECIAL TOPICS IN TRANSLATION STUDIES 1-3 Credit Hours

(Repeatable for credit) Content varies with the topic, which may include any aspect of translation studies (practical or theoretical). Topics are taught in English and some topics may be team taught.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

TRST 80098 RESEARCH IN TRANSLATION STUDIES 1-6 Credit Hours

(Repeatable for credit) Research or scholarly activities about topics in translation studies under faculty supervision with departmental approval. The work for this course should result in a paper, presentation or some other appropriate gradable product.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Satisfactory/Unsatisfactory

TRST 80191 SEMINAR IN TRANSLATION INFORMATICS 3 Credit Hours

(Repeatable for credit) Seminar for doctoral students to present and discuss research related to specific areas of translation informatics. May be taken for a total of 6 credit hours, either alone or in combination with TRST 80191.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

TRST 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation. Registration in at least two semesters is required the first of which will be the semester in which dissertation work begins and continuing until 30 hours are completed.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

TRST 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation, continuing until all degree requirements are met.

Prerequisite: TRST 80199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Department of Philosophy

Philosophy (PHIL)

PHIL 11001 INTRODUCTION TO PHILOSOPHY (KHUM) 3 Credit Hours

An introduction to the diverse methods and subject matters of philosophy. Possible topics and/or questions may include: the nature of reality, consciousness, existence, agency, knowledge or God. Readings include significant primary source assignments from historical and/or contemporary philosophers.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, TAG Arts and Humanities, Transfer Module Humanities

PHIL 11009 CRITICAL THINKING (KADL) 3 Credit Hours

Critical thinking is essential to all aspects of life. From understanding current events to examining a contract or other legal document to participating in policy debates. This course teaches the strategies of "cognitive self-defense" that allow students to see past false claims and avoid being deceived by misleading rhetorical strategies. The course also examines the role of argument in reasoning, including types of arguments and the ways in which mistakes in reasoning can lead us astray. Examples from everyday life illustrate the sorts of complex reasoning that are a crucial part of practical decision-making.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Additional, TAG Arts and Humanities

PHIL 20095 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit) Sophomore level course with variable content of philosophical interest.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 21001 INTRODUCTION TO ETHICS (KHUM) 3 Credit Hours

Course is designed to introduce students to questions of value (right/wrong, good/bad) and the systematic analysis of those questions. This course examines minimally three competing ethical theories using primary sources: virtue ethics (Aristotle), deontological ethics (Kant) and utilitarianism (J.S. Mill). The theories are critically assessed and students are asked to think about whether and how each theory is useful when assessing "real world" questions.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Humanities, TAG Arts and Humanities, Transfer Module Humanities

PHIL 21002 INTRODUCTION TO FORMAL LOGIC (KMCR) 3 Credit Hours

Course is designed to sharpen students' reasoning skills and to help them better understand the structure of reasoning in general. Students are introduced to some formal languages, including propositional logic and predicate logic, that represent the logical structure of deductive reasoning. Unlike natural languages such as English, these formal languages allow students to focus on the general structure of different types of arguments. The course covers both the construction of formal proofs in these languages, and translation between them and natural language. The study of formal logic contributes to effective and persuasive reasoning, not only in philosophy, but in any discipline or context. It also provides effective tools for evaluating the strength of natural language arguments. The skills that students acquire in this course are thus widely applicable in their personal, professional and academic lives.

Prerequisite: Minimum 35 ALEKS math score; or minimum 22 ACT math score; or minimum 530 SAT math score; or MATH 00022 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Mathematics and Critical Reasoning, TAG Arts and Humanities, Transfer Module Mathematics

PHIL 30015 MEDICINE AND MORALITY 3 Credit Hours

A philosophical exploration of at least three issues related to current medical practices, which may include ethical, religious, legal and clinical aspects. Topics such as the use of genetic technologies, organ donation and transplantation, the use of human research subjects, ethical issues in healthcare delivery or beginning- and end-of-life decision-making may be addressed.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 30025 ENVIRONMENTAL PHILOSOPHY (ELR) 3 Credit Hours

An examination of philosophical issues in environmental studies, including topics such as animal ethics and the sources of our food; the value of nature and environmental aesthetics; sustainability and biodiversity; ecofeminism, social justice and radical ecology; and the human response to climate change. The course is designed to complement fields of study such as geography, environmental studies and biology.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

PHIL 31002 MEDIEVAL PHILOSOPHY 3 Credit Hours

Examination of issues in medieval thought, such as the existence and nature of God, the relationship between faith and reason, the problem of universals and the nature of causality. Selections from philosophers such as Augustine, Boethius, Aquinas, Abelard, Avicenna, Maimonides, Meister Eckhart, Duns Scotus and William of Ockham. Students with junior standing or above, who have not previously taken a Philosophy (PHIL) course, should contact the department for a prerequisite override.

Prerequisite: One course in philosophy.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 31011 ANCIENT PHILOSOPHY 3 Credit Hours

Examination of ancient philosophy, including Plato and Aristotle and those who informed and inherited their philosophy. Ancient philosophers made the move from myth to philosophical exploration and explanation, and are recognized as the founding figures in Western philosophy. Reading assignments include primary source material.

Prerequisite: PHIL 11001 or PHIL 21001; and PHIL 11009 or PHIL 21002 or PHIL 41038.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 31012 EARLY MODERN PHILOSOPHY 3 Credit Hours

Course addresses the work of early modern philosophers such as Descartes, Spinoza, Leibniz, Locke, Berkeley or Hume, of the early modern philosophical period. Reading assignments include primary source material. The course will identify, develop and present the differences between rationalism and empiricism as it evolved in the 17th and 18th centuries.

Prerequisite: PHIL 11001 or PHIL 21001; and PHIL 11009 or PHIL 21002 or PHIL 41038.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 31013 LATE MODERN PHILOSOPHY 3 Credit Hours

Course explores the development of philosophy in the 18th and 19th centuries, such as Kant, Hegel and Marx. Reading assignments include primary source material. Focal topics include Kant's critical project before turning to its reception and the various responses to it. The course results in an introduction to the school of thought known as German Idealism.

Prerequisite: PHIL 11001 or PHIL 21001; and PHIL 11009 or PHIL 21002 or PHIL 41038.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 31030 EXISTENTIALISM 3 Credit Hours

Examination of the themes of existentialism, which may include absurdity, freedom, and the individual's relationship to the world. Philosophers studied may include Sartre, Kierkegaard, Nietzsche, Camus, de Beauvoir, Ortega y Gasset, Marcel or Tillich. Students with junior standing or above, who have not taken a Philosophy (PHIL) course, should contact the department for a prerequisite override.

Prerequisite: One course in philosophy.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 31035 PHILOSOPHY AND JUSTICE 3 Credit Hours

Course examines topics and issues relevant to the concept of justice, as addressed by a range of classical and contemporary philosophers. Philosophical approaches to justice studies may include feminist, libertarian, liberal, socialist, communitarian, egalitarian and social welfare perspectives. The course also considers the application of various perspectives on justice to practical issues such as affirmative action, democracy, equal pay, environmental justice, just war, criminal justice, civil disobedience, tort law and poverty. Students with junior standing or above, who have not taken a Philosophy (PHIL) course, should contact the department for a prerequisite override.

Prerequisite: One course in philosophy.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 31040 FEMINIST PHILOSOPHY 3 Credit Hours

Course introduces feminist philosophy understood as a critical project. As such, the course focuses on issues related to gender, sex, and sexual identity, and may include discussions of gender roles and sexual differences, as well as investigation of social frameworks that reproduce gendered social expectations. The course focuses extensively on contemporary texts and contextualizes those sources historically. Students with junior standing or above, who have not taken a Philosophy (PHIL) course, should contact the department for a prerequisite override.

Prerequisite: One course in philosophy.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 31050 PHILOSOPHY THROUGH LITERATURE 3 Credit Hours

Course introduces several philosophical problems via an examination of those problems and themes in works of literature. The course combines philosophical essays with works of poetry, short novels and short stories, so as to expose students to diverse perspectives on complex philosophical problems. Students with junior standing or above, who have not taken a Philosophy (PHIL) course, should contact the department for a prerequisite override.

Prerequisite: One course in philosophy.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 31060 PHILOSOPHY OF ART AND BEAUTY (ELR) 3 Credit Hours

Course investigates concepts such as the artistic object and creative expression, and examines and critiques a range of theories designed to solve various problems in the field of aesthetics (the study of the nature and principles of art and beauty). Examples drawn from diverse genres such as the visual arts, drama, music and dance provide the context for discussions of topics including what makes something beautiful and what is involved in an act of creativity. Students with junior standing or above, who have not taken a Philosophy (PHIL) course, should contact the department for a prerequisite override.

Prerequisite: One course in philosophy.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

PHIL 31091 PHILOSOPHERS IN DEPTH (WIC) 3 Credit Hours

(Repeatable for credit) Course introduces students to the work and influence of a single philosopher, either historical or contemporary, in depth. Philosopher of focus varies by semester and according to professor. Reading assignments include primary source material. The course serves as a counterbalance to the broad introduction to the history of philosophy that students receive in the history of philosophy sequence. In this course, students learn to work carefully with primary sources, along with learning the requirements of academic philosophical writing.

Prerequisite: PHIL 11001 or PHIL 21001; and PHIL 11009 or PHIL 21002 or PHIL 41038.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PHIL 40005 HEALTH CARE ETHICS 3 Credit Hours

Ethical problems in health care critically assessed, and consideration of how these specific ethical problems illuminate the ethical enterprise. Students with junior standing or above, who have not taken a philosophy course, should contact the department for a prerequisite override.

Prerequisite: One course in philosophy.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 40093 VARIABLE TITLE WORKSHOP IN PHILOSOPHY 1-6 Credit Hours

(Repeatable for credit)

Prerequisite: Permission.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

PHIL 41010 PROBLEMS IN THE PHILOSOPHY OF RELIGION 3 Credit Hours

(Slashed with PHIL 51010) Philosophical examination of issues and problems presented by various writers in philosophy of religion.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41020 SOCIAL AND POLITICAL PHILOSOPHY 3 Credit Hours

(Slashed with PHIL 51020) Critical examination of classical and contemporary philosophical theories of the nature of society, and the state as political system that best represents a well-organized society. Topics may include the nature, existence, and justification of the state, the issue of political obligation, theories of anarchism, utopia, democracy, liberalism, communitarianism, citizenship, and patriotism, and examination of the nature of the social and political values or notions of rights, equality, and liberty.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41025 PHILOSOPHY OF LAW 3 Credit Hours

(Slashed with PHIL 51025) Critical examination of the nature, features, foundation, and function of law. Topics may include the debate between natural law theory and legal positivism, with respect to whether law and moral are necessarily connected, as well as the nature of judicial decision, constitution interpretation, the basis and elements of criminal, civil law (contract, tort) law, the grounds for obeying or disobeying bad laws, and analysis of some supreme court cases which raise philosophical issues about the nature and function of law.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41030 ETHICAL THEORY 3 Credit Hours

(Slashed with PHIL 51030) In this course, students will explore developments in the dominant normative theories of 20th and 21st century Anglo-American ethics, including consequentialism, deontology, virtue ethics, ethics of care, and varieties of contract theory.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41035 PHILOSOPHY OF SCIENCE 3 Credit Hours

(Slashed with PHIL 51035) What is science? What are its distinctive aims and methods, and how do they bolster the epistemic authority of scientific theories? Do sociological, historical, and cultural factors play a major role in the advancement of scientific thought? These questions, and others like them, define the philosophy of science - a branch of philosophy that deals with the metaphysical, epistemological, and normative issues that arise in the study of scientific practice.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41036 PHILOSOPHY OF COGNITIVE SCIENCE 3 Credit Hours

(Slashed with PHIL 51036) In this course, students focus on issues at the interface of philosophy, psychology, neuroscience, linguistics, and artificial intelligence. These fields, which comprise contemporary cognitive science, present the philosopher with an opportunity to clarify foundational concepts, such as computation, innateness, language, perception, and learning. Ultimately, the goal of the course is to understand various proposals about how neural computation could amount to human intelligence and consciousness.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41038 INTERMEDIATE LOGIC 3 Credit Hours

(Cross-listed with CS 41038 and MATH 41038)(Slashed with MATH 51038 and PHIL 51038) A detailed, systematic study of symbolic logic for philosophy majors, mathematics majors, computer science majors and anyone else interested in advanced study in logic. The aim of the course is twofold: (1) to develop a facility in understanding and using symbolic logic for various purposes, and (2) to understand and appreciate symbolic logic as an area of study in itself. Topics include the distinction between syntactic, object-level proofs and semantic, meta-level proofs; the distinction between axiomatic systems and natural deduction systems of object-level proofs; various systems of modal logic; and some non-classical logics. Students with junior standing or above who have not taken a philosophy course should contact the department for a prerequisite override.

Prerequisite: CS 23022 or MATH 12003 or MATH 23022 or PHIL 21002.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41040 EPISTEMOLOGY 3 Credit Hours

(Slashed with PHIL 51040) What is the difference between merely believing something to be the case and knowing it to be the case? In this course students examine various theories designed to answer this question and evaluate their respective strengths and weaknesses. The course will cover the Gettier problem that questions the traditional definition of knowledge as justified true belief, the debate between foundationalism and coherentism, the debate between internalism and externalism about justification, naturalized epistemology, and virtue epistemology.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41042 METAPHYSICS 3 Credit Hours

(Slashed with PHIL 51042) Covers several topics in contemporary analytic metaphysics. Topics may include existence, identity, things and their persistence over time, the nature of modalities and possible worlds, and the relationship between material parts and wholes.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41048 METAETHICS 3 Credit Hours

(Slashed with PHIL 51048) Metaethics is the study of the nature and justification of moral judgments, as distinct from ethics, which aims to articulate principles, criteria, or alternative approaches to understanding and achieving goodness and right action. Metaethics examines the concepts, ontology, psychology, and modes of justification employed within ethics. This course will explore recent developments about such questions as: which, if any, ethical judgments can be true or false; whether we can know true ethical statements; and to what kinds of properties, if any, ethical judgments and beliefs refer.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41052 PHILOSOPHY OF LANGUAGE 3 Credit Hours

(Slashed with PHIL 51052) Critical examination of nature and function of language especially in relation to mental function and development.

Prerequisite: One 30000-level Philosophy (PHIL) course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41055 PHENOMENOLOGY 3 Credit Hours

(Slashed with PHIL 51055) In-depth study of the phenomenological movement in twentieth-century philosophy, from its origin in the thought of Edmund Husserl and his contemporaries, through such canonical thinkers as Martin Heidegger and Maurice Merleau-Ponty, to various contemporary developments. Substantial time is also devoted to considering applications of phenomenology to various disciplines in the humanities, social sciences, and arts. This is in keeping with the overall focus in this seminar on phenomenology not only as a philosophical school, but also as a methodology with broad and diverse applications.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41060 PRAGMATISM 3 Credit Hours

(Slashed with PHIL 51060) As America's distinctive "home-grown" philosophy, pragmatism embodies the values of action, problem-solving, and consensus-building within a pluralistic society. The core of this course examines the seminal works of the classical American pragmatists: Peirce, James, and Dewey. Special attention will be devoted to a phenomenology of experience that undercuts the dualisms of mind and matter, subject and object, self and world.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41076 CONTINENTAL PHILOSOPHY 3 Credit Hours

(Slashed with PHIL 51076) Investigation of some figure, issue or theme in continental philosophy from Descartes to present.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41080 PHILOSOPHY AND ART: 1890 - PRESENT 3 Credit Hours

(Slashed with PHIL 51080) Exploring, with emphasis on the modern age, philosophical conceptions of art in their interplays with, especially, practicing artists' attitudes toward theory.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 41491 SEMINAR IN ASIAN PHILOSOPHY 3 Credit Hours

(Repeatable for credit) (Slashed with PHIL 51491) Intensive primary-source reading and critical appreciation of the significant works of one or more philosophical figures or one or more philosophical issues from traditions in Asian philosophy.

Prerequisite: Any Philosophy (PHIL) 30000-level course.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PHIL 41591 SEMINAR IN THE HISTORY OF PHILOSOPHY 3 Credit Hours

(Slashed with PHIL 51591)(Repeatable for credit) Intensive primary source reading and critical appreciation of the significant works of one or more philosophical figures or issues from various traditions in philosophy.

Prerequisite: One 30000-level Philosophy (PHIL) course.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PHIL 49995 SPECIAL TOPICS 2,3 Credit Hours

(Repeatable for credit when topic varies)

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 2-3 lecture

Grade Mode: Standard Letter

PHIL 49996 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for Credit) Individual investigation allowing students to conduct a detailed investigation of a topic not covered in a regularly scheduled course.

Prerequisite: Departmental special approval prior to registration.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter

PHIL 49999 SENIOR HONORS PROJECT (ELR) 2,3 Credit Hours

(Repeatable for credit) Thesis or other independent study or creative project. Repeated registration permitted with departmental approval prior to registration.

Prerequisite: Special approval.

Schedule Type: Project or Capstone

Contact Hours: 2-3 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

PHIL 50005 HEALTH CARE ETHICS 3 Credit Hours

Ethical problems in health care critically assessed and consideration of how these specific ethical problems illuminate the ethical enterprise.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 50093 VARIABLE TITLE WORKSHOP IN PHILOSOPHY 1-6 Credit Hours

(Repeatable for credit)

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory

PHIL 51010 PROBLEMS IN THE PHILOSOPHY OF RELIGION 3 Credit Hours

(Slashed with PHIL 41010) Philosophical examination of issues and problems presented by various writers in philosophy of religion.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51020 SOCIAL AND POLITICAL PHILOSOPHY 3 Credit Hours

(Slashed with PHIL 41020) Critical examination of classical and contemporary philosophical theories of the nature of society, and the state as political system that best represents a well-organized society. Topics may include the nature, existence, and justification of the state, the issue of political obligation, theories of anarchism, utopia, democracy, liberalism, communitarianism, citizenship, and patriotism, and examination of the nature of the social and political values or notions of rights, equality, and liberty.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51025 PHILOSOPHY OF LAW 3 Credit Hours

(Slashed with PHIL 41025) Critical examination of the nature, features, foundation, and function of law. Topics may include the debate between natural law theory and legal positivism, with respect to whether law and moral are necessarily connected, as well as the nature of judicial decision, constitution interpretation, the basis and elements of criminal, civil law (contract, tort) law, the grounds for obeying or disobeying bad laws, and analysis of some supreme court cases which raise philosophical issues about the nature and function of law.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51030 ETHICAL THEORY 3 Credit Hours

(Slashed with PHIL 41030) In this course, students will explore developments in the dominant normative theories of 20th and 21st century Anglo-American ethics, including consequentialism, deontology, virtue ethics, ethics of care, and varieties of contract theory.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51035 PHILOSOPHY OF SCIENCE 3 Credit Hours

(Slashed with PHIL 41035) What is science? What are its distinctive aims and methods, and how do they bolster the epistemic authority of scientific theories? Do sociological, historical, and cultural factors play a major role in the advancement of scientific thought? These questions, and others like them, define the philosophy of science - a branch of philosophy that deals with the metaphysical, epistemological, and normative issues that arise in the study of scientific practice.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51036 PHILOSOPHY OF COGNITIVE SCIENCE 3 Credit Hours

(Slashed with PHIL 41036) In this course, students focus on issues at the interface of philosophy, psychology, neuroscience, linguistics, and artificial intelligence. These fields, which comprise contemporary cognitive science, present the philosopher with an opportunity to clarify foundational concepts, such as computation, innateness, language, perception, and learning. Ultimately, the goal of the course is to understand various proposals about how neural computation could amount to human intelligence and consciousness.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51038 INTERMEDIATE LOGIC 3 Credit Hours

(Cross-listed with MATH 51038)(Slashed with CS 41038, MATH 41038 and PHIL 41038) A detailed, systematic study of symbolic logic for philosophy majors, mathematics majors, computer science majors and anyone else interested in advanced study in logic. The aim of the course is twofold: (1) to develop a facility in understanding and using symbolic logic for various purposes, and (2) to understand and appreciate symbolic logic as an area of study in itself. Topics include the distinction between syntactic, object-level proofs and semantic, meta-level proofs; the distinction between axiomatic systems and natural deduction systems of object-level proofs; various systems of modal logic; and some non-classical logics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51040 EPISTEMOLOGY 3 Credit Hours

(Slashed with PHIL 41040) What is the difference between merely believing something to be the case and knowing it to be the case? In this course students examine various theories designed to answer this question and evaluate their respective strengths and weaknesses. The course will cover the Gettier problem that questions the traditional definition of knowledge as justified true belief, the debate between foundationalism and coherentism, the debate between internalism and externalism about justification, naturalized epistemology, and virtue epistemology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51042 METAPHYSICS 3 Credit Hours

(Slashed with PHIL 41042) Covers several topics in contemporary analytic metaphysics. Topics may include existence, identity, things and their persistence over time, the nature of modalities and possible worlds, and the relationship between material parts and wholes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51048 METAETHICS 3 Credit Hours

(Slashed with PHIL 41048) Metaethics is the study of the nature and justification of moral judgments, as distinct from ethics, which aims to articulate principles, criteria, or alternative approaches to understanding and achieving goodness and right action. Metaethics examines the concepts, ontology, psychology, and modes of justification employed within ethics. This course will explore recent developments about such questions as: which, if any, ethical judgments can be true or false; whether we can know true ethical statements; and to what kinds of properties, if any, ethical judgments and beliefs refer.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51052 PHILOSOPHY OF LANGUAGE 3 Credit Hours

(Slashed with PHIL 41052) Critical examination of nature and function of language especially in relation to mental function and development.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51055 PHENOMENOLOGY 3 Credit Hours

(Slashed with PHIL 41055) In-depth study of the phenomenological movement in twentieth-century philosophy, from its origin in the thought of Edmund Husserl and his contemporaries, through such canonical thinkers as Martin Heidegger and Maurice Merleau-Ponty, to various contemporary developments. Substantial time is also devoted to considering applications of phenomenology to various disciplines in the humanities, social sciences, and arts. This is in keeping with the overall focus in this seminar on phenomenology not only as a philosophical school, but also as a methodology with broad and diverse applications.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51060 PRAGMATISM 3 Credit Hours

(Slashed with PHIL 41060) As America's distinctive "home-grown" philosophy, pragmatism embodies the values of action, problem-solving, and consensus-building within a pluralistic society. The core of this course examines the seminal works of the classical American pragmatists: Peirce, James, and Dewey. Special attention will be devoted to a phenomenology of experience that undercuts the dualisms of mind and matter, subject and object, self and world.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51076 CONTINENTAL PHILOSOPHY 3 Credit Hours

(Slashed with PHIL 41076) Investigation of some figure, issue or theme in continental philosophy from Descartes to present.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51080 PHILOSOPHY AND ART: 1890 - PRESENT 3 Credit Hours

(Slashed with PHIL 41080) Exploring, with emphasis, on the modern age philosophical conceptions of art in their interplays with, especially, practicing artists' attitudes toward theory.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 51491 SEMINAR IN ASIAN PHILOSOPHY 3 Credit Hours

(Repeatable for credit) (Slashed with PHIL 41491) Intensive primary-source reading and critical appreciation of the significant works of one or more philosophical figures or one or more philosophical issues from traditions in Asian philosophy.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PHIL 51591 SEMINAR IN THE HISTORY OF PHILOSOPHY 3 Credit Hours

(Slashed with PHIL 41591)(Repeatable for credit) Intensive primary source reading and critical appreciation of the significant works of one or more philosophical figures or issues from various traditions in philosophy.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PHIL 59995 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit) When content varies, may be repeated for credit.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 60191 GRADUATE SEMINAR 3 Credit Hours

(Repeatable for credit) Intensive primary-source reading and critical appreciation of the significant works of one or more philosophical figures or one or more philosophical issues.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 69101 PROSEMINAR: PROFESSIONAL AND PEDAGOGICAL TRAINING 3 Credit Hours

(Repeatable for credit) Students participate in the preparation and planning of the annual Graduate Student Conference, receive professional training and mentoring, and work closely with faculty to write and revise a philosophical essay suitable for use as a writing sample or conference presentation.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Satisfactory/Unsatisfactory

PHIL 69199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and departmental special approval before registration.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHIL 69299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: PHIL 69199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHIL 69995 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit) Selected topics in Philosophy.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHIL 69996 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for Credit) Individual investigation allowing students to complete the culminating experience option in the Master of Arts in Philosophy program.

Prerequisite: Graduate standing; and special approval by instructor.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHIL 69998 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for master's level graduate students. Credits earned may be applied toward meeting degree requirements.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Department of Physics

Physics (PHY)

PHY 11030 SEVEN IDEAS THAT SHOOK THE UNIVERSE (KBS) 3 Credit Hours

Description of major revolutionary physical concepts and their implications for understanding the physical universe. Not counted toward requirements for physics major.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

PHY 12000 INTRODUCTORY PHYSICS SEMINAR (ELR) 1 Credit Hour

To provide a nurturing course for new physics majors, ideally to be taken in their first semester as majors. The course includes a journal club component, informational talks by industrial physicists and training in a select group of essential skills and tools for future work in the physics program.

Prerequisite: None.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

PHY 12111 PHYSICS FOR HEALTH TECHNOLOGIES 3 Credit Hours

Basic physics applied to health technologies: measurement techniques, force and motion of solids and fluids, energy, heat wave phenomena, electricity. Students taking this course should be in a health technologies major.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 12201 TECHNICAL PHYSICS I (KBS) (KLAB) 3 Credit Hours

Introduction to principles of physics: mechanics.

Prerequisite: MATH 11010.

Pre/corequisite: MATH 11022.

Schedule Type: Combined Lecture and Lab

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab

PHY 13001 GENERAL COLLEGE PHYSICS I (KBS) 4 Credit Hours

Principles of mechanics, heat and sound.

Prerequisite: Minimum C grade in MATH 11022 or in MATH 12011; or pre/corequisites MATH 12002 or MATH 12012 or MATH 12021.

Corequisite: PHY 13021.

Schedule Type: Lecture, Recitation

Contact Hours: 3 lecture, 1 other

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, TAG Science, Transfer Module Natural Sciences

PHY 13002 GENERAL COLLEGE PHYSICS II (KBS) 4 Credit Hours

Principles of electricity and magnetism, optics and modern physics.

Three hours lecture and one hour recitation weekly.

Prerequisite: PHY 13001 or PHY 23101.

Corequisite: PHY 13022.

Schedule Type: Lecture, Recitation

Contact Hours: 3 lecture, 1 other

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, TAG Science, Transfer Module Natural Sciences

PHY 13012 COLLEGE PHYSICS II (KBS) 2 Credit Hours

Principles of classical physics, primarily electricity and magnetism.

Prerequisite: PHY 13001 or PHY 23101.

Schedule Type: Lecture, Recitation

Contact Hours: 2 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

PHY 13021 GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB) 1 Credit Hour

Introductory lab to accompany PHY 13001.

Corequisite: PHY 13001.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science, Transfer Module Natural Sciences, TAG Natural Science Lab

PHY 13022 GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB) 1 Credit Hour

Introductory lab to accompany PHY 13002 or PHY 13012.

Corequisite: PHY 13002 or PHY 13012.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science, Transfer Module Natural Sciences, TAG Natural Science Lab

PHY 20095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Topic announced when scheduled.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PHY 20096 INDIVIDUAL INVESTIGATION IN PHYSICS 1-6 Credit Hours

(Repeatable for credit) Individual projects in physics.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-6 other

Grade Mode: Standard Letter-IP

PHY 21040 PHYSICS IN ENTERTAINMENT AND THE ARTS (KBS) 3 Credit Hours

Descriptive introduction to physics underlying selected forms of art and entertainment. Examples are drawn from music, visual arts and communications media. Not counted toward requirements for physics major.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

**PHY 21041 PHYSICS IN ENTERTAINMENT AND THE ARTS
LABORATORY (KBS) (KLAB) 1 Credit Hour**

Laboratory component of PHY 21040, two hours weekly.

Pre/corequisite: PHY 21040.

Schedule Type: Laboratory

Contact Hours: 2 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, Transfer Module Natural Sciences, TAG Natural Science Lab

PHY 21430 FRONTIERS IN ASTRONOMY (KBS) 3 Credit Hours

Modern description of astrophysical observations, the results of these observations and the physical principles based on them. Not counted toward requirements for physics major.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Transfer Module Natural Sciences

**PHY 21431 FRONTIERS IN ASTRONOMY LABORATORY (KBS) (KLAB)
1 Credit Hour**

Laboratory component of PHY 21430.

Pre/corequisite: PHY 21430.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, Transfer Module Natural Sciences, TAG Natural Science Lab

PHY 23101 GENERAL UNIVERSITY PHYSICS I (KBS) (KLAB) 5 Credit Hours

Principles of mechanics, heat and sound at calculus level.

Pre/corequisite: MATH 12002.

Schedule Type: Laboratory, Lecture

Contact Hours: 4 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science

PHY 23102 GENERAL UNIVERSITY PHYSICS II (KBS) (KLAB) 5 Credit Hours

Principles of electricity, magnetism, light and modern physics at calculus level.

Prerequisite: PHY 13001 or PHY 23101.

Pre/corequisite: MATH 12003.

Schedule Type: Laboratory, Lecture

Contact Hours: 4 lecture, 3 lab

Grade Mode: Standard Letter

Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab, TAG Science

PHY 30020 INTERMEDIATE PHYSICS LABORATORY (WIC) 2 Credit Hours

Experiments in classical and modern physics are selected to accompany and supplement junior-level physics courses.

Pre/corequisite: PHY 36001.

Schedule Type: Laboratory

Contact Hours: 4 lab

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PHY 30095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Topic announced when scheduled.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PHY 32511 ELECTRONICS 4 Credit Hours

"Hands-on" course to give the student a working knowledge of analog electronics and of AC and DC circuits typically used by the scientist.

Prerequisite: MATH 12002 and; PHY 13002 or PHY 23102.

Schedule Type: Combined Lecture and Lab

Contact Hours: 6 other

Grade Mode: Standard Letter

PHY 32564 INTRODUCTION TO MATERIALS PHYSICS 3 Credit Hours

Survey of mechanical, electronic, optical and thermal properties of materials with application in science and technology. Materials including metals, semiconductors, ceramics, polymers and liquid crystals will be introduced.

Prerequisite: PHY 23102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 34000 COSMOLOGY 3 Credit Hours

This course will provide a quantitative introduction to modern cosmology, from the Big Bang to the formation of the first stars. Subjects include the evolution of the geometry and temperature of the universe its composition and select aspects of general relativity.

Prerequisite: PHY 36001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 35101 CLASSICAL MECHANICS 4 Credit Hours

Modern description of mechanics including both Lagrangian and Hamilton formulations, with applications to central force, motion, coupled oscillations, rigid body motion and motion in non-inertial reference frames.

Prerequisite: PHY 23102.

Pre/corequisite: MATH 32051.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 36001 INTRODUCTORY MODERN PHYSICS 3 Credit Hours

Special theory of relativity, Rutherford-Bohr model of atom, quantization of light, matter waves, Schroedinger equation, hydrogen atom, electron spin, multi-electron atoms.

Prerequisite: MATH 12003 and PHY 23102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 36002 APPLICATIONS OF MODERN PHYSICS 3 Credit Hours

Survey of applications of twentieth century physics. Topics include molecular bonding, conducting and insulating solids, degenerate matter, quantum condensates, subatomic and sub-nuclear particle physics, cosmology.

Prerequisite: PHY 36001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 40020 ADVANCED PHYSICS LABORATORY (WIC) 2 Credit Hours

(Slashed with PHY 50020) Advanced experiments in classical and modern physics are selected to accompany and supplement senior-level physics courses.

Prerequisite: PHY 30020.

Pre/corequisite: 6 credit hours of 40000-level Physics (PHY) courses.

Schedule Type: Laboratory

Contact Hours: 4 lab

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PHY 40060 PHYSICAL LITERATURE 1-3 Credit Hours

Study of current or topical literature.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PHY 40092 INTERNSHIP IN PHYSICS (ELR) 1-3 Credit Hours

(Repeatable for credit) Supervised capstone experience in physics at a national laboratory, a research university in industry or at a local research site. No more than 3 credit hours may be applied toward the major electives for physics majors.

Prerequisite: Permission.

Schedule Type: Practical Experience

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

Attributes: Experiential Learning Requirement

PHY 40095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Topic announced when scheduled.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PHY 40096 INDIVIDUAL INVESTIGATION (ELR) 1-3 Credit Hours

(Slashed with PHY 50096) (Repeatable for credit) Individual projects for physics majors and minors.

Prerequisite: PHY 23102; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

PHY 40099 SENIOR HONORS THESIS (ELR) 1-9 Credit Hours

(Repeatable for credit) Thesis for departmental, general or university honors must be 1-9 hours with continuous registration throughout the senior year beginning in the summer prior to the senior year. Students taking this course must consult with their department and the Honors College and receive approval prior to the first semester of the senior year.

Prerequisite: Senior standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 1-9 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

PHY 40195 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) (Slashed with PHY 50195) Topic announced when scheduled.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PHY 44600 INTRODUCTION TO BIOLOGICAL PHYSICS 3 Credit Hours

Introduces ideas essential to physical understanding of biological systems. Topics include: introduction to molecular components of the cell; statistical mechanics and transport in biological systems; selected topics in biophysics.

Prerequisite: PHY 23102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 44802 ASTROPHYSICS 3 Credit Hours

(Slashed with PHY 54802) Galactic structure, stellar formation and evolution, origin of the elements (or nucleosynthesis), nonoptical astronomies and description of various cosmological theories.

Prerequisite: MATH 12003.

Pre/corequisite: PHY 13002 or PHY 23102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 45201 ELECTROMAGNETIC THEORY 4 Credit Hours

Properties of electric and magnetic fields developed by vector methods. Treatment on static fields in vacuum and matter. Theory of classical electromagnetic fields with emphasis on dynamic fields.

Prerequisite: MATH 32052 and PHY 23102.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 45301 THERMAL PHYSICS 3 Credit Hours

(Slashed with PHY 55301) An introduction to thermodynamics and statistical mechanics, with applications in material science and engineering.

Prerequisite: PHY 23102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 45401 MATHEMATICAL METHODS IN PHYSICS 4 Credit Hours

Consolidation of vector analysis, curvilinear coordinate systems, tensors, matrix algebra, vector spaces, common groups in physics, calculus of residues, contour integration, methods for differential equations in physics; additional topics important for physics selected from special functions, integral equations, calculus of variations.

Prerequisite: MATH 32052.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 45403 DATA ANALYSIS AND COMPUTATIONAL PHYSICS TECHNIQUES 3 Credit Hours

(Slashed with PHY 55403) Study of uncertainties in physical measurements. Data reduction and error analysis techniques. Monte Carlo simulation method. Least-squares fits to data. Basic computational physics techniques.

Prerequisite: MATH 12003 and PHY 23102.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 45501 ELECTROMAGNETIC WAVES AND MODERN OPTICS 3 Credit Hours

(Slashed with PHY 55501) Interactions between light and matter from both a macroscopic and microscopic perspective; producing and controlling light devices and spectroscopic techniques based on modern optics.

Prerequisite: PHY 23102; and MATH 22005 or MATH 32051 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 46101 QUANTUM MECHANICS 4 Credit Hours

Systematic introduction to the principles and solution techniques of quantum mechanics, including the Schroedinger equation in one and three dimensions. Topics include: angular momentum formalism, introductory Dirac notation and vector space formalism, intrinsic spin, identical particle systems and perturbation theory.

Prerequisite: PHY 36001.

Pre/corequisite: MATH 32052.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 46301 INTRODUCTION TO NUCLEAR AND PARTICLE PHYSICS 4 Credit Hours

(Slashed with PHY 56301) Introduction to nuclear and particle physics including particle detectors and accelerators, experimental techniques, nuclear fission and fusion, nuclear reactors, medical applications and connections to astrophysics and cosmology.

Prerequisite: PHY 36001.

Pre/corequisite: MATH 32051.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 46401 INTRODUCTION TO SOLID STATE PHYSICS 3 Credit Hours

(Slashed with PHY 56401) Fundamental unifying concepts and experimental techniques needed to understand thermal, electrical and optical properties of ions and electrons in solids. Special topics of current research.

Prerequisite: PHY 36001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 50020 ADVANCED PHYSICS LABORATORY 2 Credit Hours

(Slashed with PHY 40020) Advanced experiments in classical and modern physics are selected to accompany and supplement graduate-level physics courses.

Prerequisite: Graduate standing.

Schedule Type: Laboratory

Contact Hours: 4 lab

Grade Mode: Standard Letter

PHY 50093 VARIABLE TITLE WORKSHOP IN PHYSICS 1-6 Credit Hours

(Repeatable for credit) Workshops individually designed to provide instruction and training in specific areas of physics.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

PHY 50095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Topic announced when scheduled.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PHY 50096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Slashed with PHY 40096)(Repeatable for credit) Individual projects for physics graduate students.

Prerequisite: Graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

PHY 50195 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) (Slashed with PHY 40195) Topic announced when scheduled.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PHY 54600 INTRODUCTION TO BIOLOGICAL PHYSICS 3 Credit Hours

Introduces ideas essential to physical understanding of biological systems. Topics include: introduction to molecular components of the cell; statistical mechanics and transport in biological systems; selected topics in biophysics.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 54802 ASTROPHYSICS 3 Credit Hours

(Slashed with PHY 44802) Galactic structure, stellar formation and evolution, origin of the elements (or nucleosynthesis), nonoptical astronomies and description of various cosmological theories.

Prerequisite: MATH 12003; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 55201 ELECTROMAGNETIC THEORY 4 Credit Hours

Properties of electric and magnetic fields developed by vector methods. Treatment of static fields in vacuum and matter. Theory of classical electromagnetic fields with emphasis on dynamic fields.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 55301 THERMAL PHYSICS 3 Credit Hours

(Slashed with PHY 45301) An introduction to thermodynamics and statistical mechanics, with applications in material science and engineering.

Prerequisite: PHY 36001; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 55401 MATHEMATICAL METHODS IN PHYSICS 4 Credit Hours

Consolidation of vector analysis, curvilinear coordinate systems, tensors, matrix algebra, vector spaces, common groups in physics, calculus of residues, contour integration, methods for differential equations in physics; additional topics important for physics selected from special functions, integral equations, calculus of variations.

Prerequisite: MATH 32052; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 55403 DATA ANALYSIS AND COMPUTATIONAL PHYSICS TECHNIQUES 3 Credit Hours

(Slashed with PHY 45403) Study of uncertainties in physical measurements. Data reduction and error analysis techniques. Monte Carlo simulation method. Least-squares fits to data. Basic computational physics techniques.

Prerequisite: MATH 12003 and PHY 23102; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 55501 ELECTROMAGNETIC WAVES AND MODERN OPTICS 3 Credit Hours

(Slashed with PHY 45501) Interactions between light and matter from both a macroscopic and microscopic perspective; producing and controlling light devices and spectroscopic techniques based on modern optics.

Prerequisite: PHY 55201; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 56101 QUANTUM MECHANICS 4 Credit Hours

Systematic introduction to the principles and solution techniques of quantum mechanics, including the Schroedinger equation in one and three dimensions. Topics include: angular momentum formalism, introductory Dirac notation and vector space formalism, intrinsic spin, identical particle systems, and perturbation theory.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 56301 INTRODUCTION TO NUCLEAR AND PARTICLE PHYSICS 4 Credit Hours

(Slashed with PHY 46301) Introduction to nuclear and particle physics including particle detectors and accelerators, experimental techniques, nuclear fission and fusion, nuclear reactors, medical applications and connections to astrophysics and cosmology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 56401 INTRODUCTION TO SOLID STATE PHYSICS 3 Credit Hours

(Slashed with PHY 46401) Fundamental unifying concepts and experimental techniques needed to understand thermal, electrical and optical properties of ions and electrons in solids. Special topics of current research.

Prerequisite: PHY 36002; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 60091 PHYSICS SEMINAR 1 Credit Hour

(Repeatable for credit) Discussion of current literature or of original research in physics. Participation by students, faculty and guests.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHY 60093 VARIABLE TITLE WORKSHOP IN PHYSICS 1-6 Credit Hours

(Repeatable for credit) Workshops individually designed to provide instruction and training in specific areas of physics.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory

PHY 60098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits earned may be applied toward meeting degree requirements if department approves.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Standard Letter-IP

PHY 60199 THESIS I 2-6 Credit Hours

Thesis students must register for total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval of advisor.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHY 60295 ADVANCED TOPICS 1-3 Credit Hours

(Repeatable for credit) Selected special topics of current research interest.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter-IP

PHY 60299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: PHY 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHY 64101 ADVANCED PROBLEM SOLVING IN PHYSICS 3 Credit Hours

(Slashed with PHY 74101) The course imparts advanced problem-solving skills not acquired in regular courses. Examples from four basic areas of physics (classical mechanics, electricity and magnetism, quantum mechanics and statistical physics) will be emphasized.

Prerequisite: PHY 65101 or PHY 65203 or PHY 66161 or PHY 65301; or graduate standing; and departmental instructor approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 65101 CLASSICAL MECHANICS 3 Credit Hours

Lagrange's equations, variational principles, two-body central force problem and rigid body motion. Hamilton's equations, canonical transformations, Hamilton-Jacobi theory and small oscillations.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 65203 CLASSICAL ELECTRODYNAMICS I 3 Credit Hours

Introduction to electrostatics, boundary-value problems, multipoles, electrostatics of macroscopic media, magnetostatics, time-varying fields, Maxwell's equations, conservation laws.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 65204 CLASSICAL ELECTRODYNAMICS II 3 Credit Hours

Plane electromagnetic waves, simple radiating systems, scattering, special theory of relativity, relativistic dynamics, radiation of moving charges, Bremsstrahlung.

Prerequisite: PHY 65203; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 65301 STATISTICAL MECHANICS I 4 Credit Hours

An introduction to statistical mechanics, including classical and quantum statistics. Derives thermodynamic quantities from a statistical viewpoint.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 66161 QUANTUM MECHANICS I 3 Credit Hours

Fundamental concepts of non-relativistic quantum mechanics. Solution of simple one dimensional problems. Abstract Hilbert-space description. Matrix representations. Quantum dynamics. Extension to three dimensions. Spin and orbital angular momentum.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 66162 QUANTUM MECHANICS II 3 Credit Hours

Angular momentum theory. Symmetries and conservation laws. Application of approximation methods to realistic problems. Systems of identical particles. Scattering theory. Relativistic single particle wave equations.

Prerequisite: PHY 66161; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 66201 PARTICLE PHYSICS 3 Credit Hours

Discussion of particle detectors, invariance principles and conservation laws, fundamental interactions, quark model of hadrons, basic concepts of field theory, the Standard Model and selected topics of current interest.

Prerequisite: PHY 66162; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 66401 SOLID STATE PHYSICS I 3 Credit Hours

Crystalline state, with emphasis on wave propagation, zone and band theory, phonons. Applications to electrical and thermal conductivities, specific heats, optical, dielectric and magnetic properties.

Prerequisite: PHY 56101 or PHY 66161; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 66403 ADVANCED CONDENSED MATTER PHYSICS 3 Credit Hours

(Slashed with PHY 76403) Advanced theories of solids, fluids, superfluids, magnetic, ferroelectric and liquid crystal systems and the experimental methods that probe them.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 68401 LIQUID CRYSTAL PHYSICS 3 Credit Hours

The molecular structure and properties of liquid crystals and their role in biological systems and industrial applications.

Prerequisite: Graduate standing in physics or chemical physics.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 70095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Topic announced when scheduled.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PHY 74101 ADVANCED PROBLEM SOLVING IN PHYSICS 3 Credit Hours

The course imparts advanced problem-solving skills not acquired in regular courses. Examples from four basic areas of physics (classical mechanics, electricity and magnetism, quantum mechanics and statistical physics) will be emphasized.

Prerequisite: PHY 65101 or PHY 65203 or PHY 66161 or PHY 65301; or doctoral standing; and departmental instructor approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 75101 CLASSICAL MECHANICS 3 Credit Hours

Lagrange's equations, variational principles, two-body central force problems, rigid body motion, Hamilton's equations, canonical transformations, Hamilton-Jacobi theory, small oscillations.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 75203 CLASSICAL ELECTRODYNAMICS I 3 Credit Hours

Introduction to electrostatics, boundary value problems, multipoles, electrostatics of macroscopic media, magnetostatics, time-varying fields, Maxwell's equations, conservation laws.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 75204 CLASSICAL ELECTRODYNAMICS II 3 Credit Hours

Plane electromagnetic waves, simple radiating systems, scattering special theory of relativity, relativistic dynamics, radiation of moving charges, Bremsstrahlung.

Prerequisite: PHY 65203; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 75301 STATISTICAL MECHANICS I 4 Credit Hours

An introduction to statistical mechanics, including classical and quantum statistics. Derives thermodynamic quantities from a statistical viewpoint.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

PHY 76161 QUANTUM MECHANICS I 3 Credit Hours

Fundamental concepts of non-relativistic quantum mechanics. Solution of simple one dimensional problems. Abstract Hilbert space description. Matrix representations. Quantum dynamics. Extension to three dimensions. Spin and orbital angular momentum.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 76162 QUANTUM MECHANICS II 3 Credit Hours

Angular momentum theory. Symmetries and conservation laws. Application of approximation methods to realistic problems. Systems of identical particles. Scattering theory. Relativistic single particle wave equations.

Prerequisite: PHY 66161; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 76163 QUANTUM MECHANICS III 3 Credit Hours

Second quantization and field theory formalism are developed for the many-particle system. Topics include the electron gas and nuclear matter.

Prerequisite: PHY 66162; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 76201 PARTICLE PHYSICS 3 Credit Hours

Discussion of particle detectors, invariance principles and conservation laws, fundamental interactions, quark model of hadrons, basic concepts of a field theory, the Standard Model and selected topics of current interest.

Prerequisite: PHY 66162 or 76162; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 76303 APPLICATIONS OF QUANTUM CHROMODYNAMICS 3 Credit Hours

Introduces the key attributes and techniques of Quantum Chromodynamics, which is the relativistic quantum field theory of the strong interaction. Topics treated include the properties, structure and interactions of strongly interacting sub-nuclear particles (hadrons) and the physics of hadronic and nuclear matter at finite temperature and density, as applicable to modern nuclear particle physics research.

Prerequisite: PHY 76163.

Corequisite: PHY 66201 or PHY 76201.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 76401 SOLID STATE PHYSICS I 3 Credit Hours

Crystalline state, with emphasis on wave propagation zone and band theory phonons. Applications to electrical and thermal conductivities specific heats optical dielectric and magnetic properties.

Prerequisite: PHY 56101 or PHY 66161 or 76161; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 76403 ADVANCED CONDENSED MATTER PHYSICS 3 Credit Hours

(Slashed with PHY 66403) Advanced theories of solids, fluids, superfluids, magnetic, ferroelectric and liquid crystal systems, and the experimental methods that probe them.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 78401 LIQUID CRYSTAL PHYSICS 3 Credit Hours

The molecular structure and properties of liquid crystals and their role in biological systems and industrial applications.

Prerequisite: Doctoral standing in physics or chemical physics.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PHY 80091 PHYSICS SEMINAR 1 Credit Hour

(Repeatable for credit) Discussion of current literature or of original research in physics. Participation by students, faculty and guests.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHY 80097 PHYSICS COLLOQUIUM 1 Credit Hour

(Repeatable for credit) Presentation by invited speakers of research and other topics on graduate level followed by discussion period. Regular attendance of all physics majors expected. Three or more meetings each semester as arranged.

Prerequisite: Doctoral standing.

Schedule Type: Colloquium

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHY 80098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed their candidacy exams. Credit earned may be applied toward the degree if the department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHY 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required; the first of which will be the semester in which dissertation work is begun, and continuing until the completion of 30 hours.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PHY 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: PHY 80199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Department of Political Science

Political Science (POL)

POL 10004 COMPARATIVE POLITICS (KSS) 3 Credit Hours

Introduces the different institutional structures of governance (e.g., parliamentary versus presidential systems) in a range of different states for different types of regimes (e.g. democratic and authoritarian) and at the international level.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

POL 10101 AMERICAN GOVERNMENT (CIV) (KSS) 3 Credit Hours

Course provides a broad survey of the American political system, including key structures, processes, behaviors, institutions and policies. Students analyze documents and texts that are foundational to the American political system, describe the basic structure of the system that the Constitution established, and learn how it has evolved over time. Also, students seek to understand how American politics affects the lives of average Americans. The course focuses on how individuals make decisions; how the rules, institutions and procedures shape those decisions; and in turn, how these actors try to shape the rules, institutions and procedures that govern political processes. The focus on the individual is intended to demonstrate that, while politics can be complex, individuals can begin to make sense of political processes and even predict outcomes by understanding the forces that affect decision makers.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: American Civic Literacy, Kent Core Social Sciences

POL 10200 INTRODUCTION TO THE AMERICAN LEGAL PROFESSION 3 Credit Hours

This course initially explores the historical and contemporary understanding of American law and political jurisprudence, or legal theory. Thereafter, the key role attorneys play in the legal system and within American society is analyzed by studying the legal profession's origins, education, ethics, professional licensing and legal and/or alternative legal employment opportunities. A special emphasis of the course is learning to develop a professional identity that values commitments to providing public service, acting as active or responsible citizens in the polity and public affairs and working to achieve impartially derived peaceful and civil resolutions to contentious disputes in an adversarial system of justice.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 10300 PUBLIC POLICY 3 Credit Hours

Course provides a survey of basic public policy concepts and processes within an historical context. Course incorporates applied work to bridge conceptual understanding and empirical cases.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 10500 WORLD POLITICS (KSS) 3 Credit Hours

A practical, theoretical introduction to a study of systematic patterns in international relations. Includes analysis of rules, instruments, processes, decision-making factors, conflict resolution.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

POL 30000 MAY 4, 1970, AND ITS AFTERMATH 3 Credit Hours

(Cross-listed with AFS 30000 and PACS 30000) Study of the events of the 1960s in the U.S. leading up to May 4, 1970 when the Ohio National Guard killed and wounded Kent State University students protesting the U.S. war in Vietnam and Cambodia. Topics are considered within their cultural, historical, social and political contexts. The course also examines the aftermath of May 4th, including the controversy surrounding constructing the gym annex on the May 4th site, the legal trials, the role of commemorations and memorials and the politics of remembering May 4, 1970.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30001 RESEARCH METHODS (ELR) 3 Credit Hours

Course is designed to bring students to a basic level of statistical literacy by introducing the fundamentals of research design and interpretation, as well as basic descriptive and inferential statistics.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

POL 30002 POLITICAL THOUGHT 3 Credit Hours

Courses introduces students to basic methodological and substantive concerns in the tradition of western political thought.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30003 POLITICAL ECONOMY 3 Credit Hours

Introduction to the fundamental questions surrounding the relationship between the public and private sectors, considered from the perspective of the state and its major political institutions. Of central concern is the growing internationalization of capital and its consequences for both domestic and international politics.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30100 AMERICAN POLITICAL THEORY 3 Credit Hours

Major political ideas and controversies associated with the development of American political thought. Nonmajors should contact the Department of Political Science for a prerequisite override.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30110 THE CONGRESS 3 Credit Hours

This course covers elections, the powers of Congress and its organization, leadership of the two houses, role of the parties, relationships with the chief executive and executive agencies, as well as recent reforms enacted by the House and Senate.

Prerequisite: POL 10300.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30120 PRESIDENCY AND EXECUTIVE BUREAUCRACY 3 Credit Hours

Intensive study of the American presidency, focusing on personality, organization of the office, use and misuse of power and policy making.

Prerequisite: POL 10300.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30130 THE JUDICIAL PROCESS 3 Credit Hours

Intensive study of the judicial process in the United States and the relationship between the judicial system and larger American social system.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30301 INTRODUCTION TO PUBLIC ADMINISTRATION 3 Credit Hours

Introduction to the theory and practice of governmental administration, including structure, organization, direction and control of governmental departments and agencies.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30350 ENVIRONMENTAL CONFLICT RESOLUTION 3 Credit Hours

(Cross-listed with PACS 35050) Examines environmental conflicts, such as land use disputes and resource conflicts, and conflict resolution theory and processes applicable to environmental disputes, especially biodiversity conservation and natural resource conflicts. Students learn about environmental conflict analysis, multistakeholder environmental dispute resolution, dialogue processes, conflict-sensitivity, and environmental cooperation among others. Case studies of environmental conflicts and participatory simulations are used.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30430 OHIO POLITICS 3 Credit Hours

Addresses the history, structure, and current practices of politics and public policy in Ohio.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30450 URBAN POLITICS AND POLICY 3 Credit Hours

Discusses local governance in the context of metropolitan change, and covers issues such as governing capacity, local democracy, individual choice and economic and racial inequality. Examines the formal and informal arrangements that shape change and public policy. Non-majors should contact the Department of Political Science for a prerequisite override.

Prerequisite: POL 10300.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30460 STATE POLITICS AND POLICY 3 Credit Hours

Introduces the theoretical and legal infrastructures of federalism and intergovernmental relations, with a particular emphasis on political and policy operations at the state level. Political behavior and institutions, as well as the specifics of selected, substantive policy areas are emphasized.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30500 INTERNATIONAL RELATIONS THEORY 3 Credit Hours

Course introduces competing theoretical approaches to the study of international relations; an examination of the historical developments followed by an examination of current issues in world politics.

Prerequisite: POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30520 EUROPEAN POLITICS 3 Credit Hours

Examines major European national political systems (British, French, German, Russian and Scandinavian) relations between the European states, the institutions of the European Union and prospects and problems of European integration.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30530 ASIAN POLITICS 3 Credit Hours

Introduction to the political, economic and social dynamics of Asia, from Siberia in the north to the Indian Ocean in the south, and from the Pacific Ocean in the east to the Hindu Kush in the west. The first part of the course examines Asia's modern political history (particularly the past half-century). The second part of the course focuses on contemporary issues, including the roles of the United States and sub-regional actors, such as the Association of Southeast Asian Nations (ASEAN).

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30540 AFRICAN POLITICS 3 Credit Hours

An analysis of major issues in African politics and international relations. The contemporary development of Africa will be analyzed in the global context of the historical forces of imperialism and colonialism.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30550 LATIN AMERICAN POLITICS 3 Credit Hours

Analysis of political culture/process in selected Latin American states, with particular emphasis on Mexico, Brazil, Argentina and Columbia.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30560 MIDDLE EAST POLITICS 3 Credit Hours

Introduces students to the theory and context of politics in the Middle East in a way that contests the often-simplistic stereotypes communicated through Western media and throughout Western culture, in order to encourage a more nuanced appreciation of the Middle East. Theoretical approaches utilized include modernization, dependency, structuralism and constructivism.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30570 PALESTINE AND ISRAEL 3 Credit Hours

(Cross-listed with INTS 30570) Course introduces students to academic approaches and theories that attempt to understand the situation in historic Palestine. The course is divided into four sections: (1) theories of settler colonialism and basic differences between Judaism, Zionism and Israeli society, as well as diversity within Palestinian society; (2) comparative studies of the establishment of the modern state of Israel, which Palestinians view in their collective experience as "the Catastrophe" or al-Nakba; (3) the occupation of East Jerusalem, the West Bank and Gaza, and how that system has changed over time; (4) pathways forward for Palestinians and Israelis.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30810 POLITICS OF THE GLOBAL ECONOMY 3 Credit Hours

Examines interaction between economics and politics in international relations. Topics include poverty and uneven economic development, political prerequisites for free trade, intra-western and north-south economic conflict and distributive justice.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30820 INTERNATIONAL ORGANIZATION AND LAW 3 Credit Hours

Course introduces the subject matter in historical and theoretical contexts, then devotes detailed attention to the full range of international organizations that exist today. A final section addresses the role of international law in world politics.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 30840 NONGOVERNMENTAL ORGANIZATIONS 3 Credit Hours

Introduction to the diverse range of nongovernmental organizations that exist today. Course explores the varying roles on nongovernmental organizations in setting agendas, shaping legislation and implementing public policy reforms.

Prerequisite: POL 10004 or POL 10300 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 39592 GENEVA INTERNSHIP (ELR) 3 Credit Hours

(Repeatable for credit) Students perform intern duties as part of the semester in Geneva.

Prerequisite: None.

Schedule Type: Practical Experience

Contact Hours: 21 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

POL 40091 VARIABLE TOPIC SEMINAR 3 Credit Hours

(Slashed with POL 50091 and POL 70091) Variable topic seminar in political science.

Prerequisite: POL 10004 or POL 10500; and POL 10300 and POL 30001; and sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40112 POLITICS AND THE MASS MEDIA 3 Credit Hours

Course examines the multiple roles played by the mass media in contemporary politics and analyzes the implications of those roles. Nonmajors should contact the Department of Political Science for a prerequisite override.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40116 PUBLIC OPINION AND POLITICAL BEHAVIOR 3 Credit Hours

Analysis of determinants of public opinion and political behavior. Study of how public makes up its mind and impact of public opinion on government policy.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40118 POLITICAL PARTIES AND INTEREST GROUPS 3 Credit Hours

An examination of the changing roles of political parties and interest groups in the American political system, including a comparison of their respective electoral activities.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40182 CONSTITUTIONAL LAW: GOVERNMENTAL STRUCTURES AND FUNCTIONS 3 Credit Hours

Nature and scope of constitutional government. Study of judicial review, separation of powers, federalism, commerce and taxation.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40183 CONSTITUTIONAL LAW: CIVIL RIGHTS AND LIBERTIES 3 Credit Hours

Nature and scope of constitutional limitations. Study of first amendment, freedom of expression, freedom of religion, criminal rights, due process, equal protection.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40191 SEMINAR IN AMERICAN POLITICS (WIC) 3 Credit Hours

(Repeatable for credit) A required, writing-intensive seminar for juniors and seniors in the American Politics concentration. The focus of the seminar varies depending on content and instructor.

Prerequisite: POL 10004 or POL 10500; and POL 10300 and POL 30001; and POL 30002 or POL 30003; and Political Science major.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

POL 40320 ETHICS AND PUBLIC POLICY 3 Credit Hours

The ethical obligations of public policy makers are examined in this course, within a series of applied cases. The goal is to empower students with the intellectual tools of critical analysis within diverse policy environments.

Prerequisite: POL 10300.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40391 SEMINAR IN PUBLIC POLICY (WIC) 3 Credit Hours

(Repeatable for credit) A required, writing intensive seminar for juniors and seniors in the Public Policy concentration. The focus of the seminar varies depending on content and instructor.

Prerequisite: POL 10004 or POL 10500; and POL 10300 and POL 30001; and POL 30002 or POL 30003; and Political Science major.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

POL 40440 U.S. ENVIRONMENTAL POLITICS AND POLICIES 3 Credit Hours

Course covers such topics as the history of the U.S. environmental movement; public opinion and environmental issues; environmental racism and classism; and environmental policy making and implementation.

Prerequisite: POL 10300.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40450 HEALTH CARE AND SOCIAL POLICY 3 Credit Hours

Addresses health care policy in the United States from both theoretical (political, economic as well as public policy) and substantive perspectives at the state, national and comparative-international levels. Further, the examination of health care policy takes place in the context of social welfare policy more broadly considered.

Prerequisite: POL 10300.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40470 WOMEN, POLITICS AND POLICY 3 Credit Hours

Examines origins, development and current record of century-old women's movement unique in U.S. annals; compares it with other contemporary social movements. Examines issues of women and public policy.

Prerequisite: POL 10300.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40530 POLITICS OF WAR 3 Credit Hours

Examines central questions concerning the justification, explanation characteristic features and consequences of war. Specific cases are examined such as World War II, the Chinese Revolution, Vietnam's civil war and potential nuclear war.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40540 POLITICS OF DEVELOPMENT 3 Credit Hours

Examines practice, record and theories of political development for less developed, developing and developed political systems. Includes extensive analysis of issues, problems through case studies.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40560 HUMAN RIGHTS AND SOCIAL JUSTICE 3 Credit Hours
(Cross-listed with INTS 40560) Examines the relationship between human rights and problems of the Third World in the civic, political, social and cultural arenas. Particular attention is placed on the struggle of women.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40589 INTERNATIONAL EXPERIENCE (ELR) 1-4 Credit Hours

(Repeatable for credit) Faculty-led study abroad programs.

Prerequisite: Special approval.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

POL 40591 SEMINAR IN INTERNATIONAL RELATIONS-COMPARATIVE POLITICS (WIC) 3 Credit Hours

(Repeatable for credit) A required, writing-intensive seminar for juniors or seniors in the International Relations-Comparative Politics concentration. The focus of the seminar varies depending on content and instructor.

International Relations majors who have completed POL 10004, POL 10500 and 6 credit hours of courses in the International Relations-Comparative Politics concentration may request a prerequisite override from the Department of Political Science.

Prerequisite: POL 10004 or POL 10500; and POL 10300 and POL 30001; and POL 30002 or POL 30003; and Political Science major.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

POL 40620 POLITICS OF SOCIAL MOVEMENTS 3 Credit Hours

Examines the role of social movements both in the United States and around the world. Focuses on labor, environmental, social justice and other initiatives in the push for political and economic democracy. North-South, public-private, labor-management and regional perspectives are emphasized.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40840 COMPARATIVE FOREIGN POLICY 3 Credit Hours

Comparative analysis of foreign policy patterns and determinants on the basis of the examination of foreign policy of selected countries.

Prerequisite: POL 10004 or POL 10300 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40930 U.S. FOREIGN POLICY 3 Credit Hours

Examines policy objectives, patterns of decision-making and foreign policy actions, roles of interest groups, public opinion, congress, executive and external influences on policy.

Prerequisite: POL 10004 or POL 10500.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 40992 INTERNSHIP (ELR) 1-9 Credit Hours

(Repeatable for credit) Allows academic credit for approved participation in a variety of political processes, or as an intern with governmental or private agencies dealing with public affairs.

Prerequisite: Minimum 2.000 overall GPA; and special approval.

Schedule Type: Field Experience

Contact Hours: 3-27 other

Grade Mode: Satisfactory/Unsatisfactory

Attributes: Experiential Learning Requirement

POL 40993 VARIABLE TITLE WORKSHOP IN POLITICAL SCIENCE 1-6 Credit Hours

(Repeatable for credit) Workshop topic varies per course offering.

Prerequisite: None.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

POL 40995 SELECTED TOPICS IN POLITICAL SCIENCE 1-3 Credit Hours

(Repeatable for credit) Special course, not regularly offered. Subject varies depending on the emerging issue, staff availability and competencies.

Prerequisite: Junior or senior standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

POL 40996 INDEPENDENT STUDY 1-3 Credit Hours

(Repeatable for credit) For students desiring research into subjects beyond level of completed course work, or on subjects for which no regular course is offered.

Prerequisite: Any two of the following courses: POL 10004 or POL 10300 or POL 10500; and minimum 2.750 overall GPA; and junior standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

POL 41990 COLUMBUS PROGRAM IN STATE ISSUES (ELR) 15 Credit Hours

(Repeatable for credit) Annual fall semester resident-study in Columbus. Students spend three days per week working at an internship and two days per week attending briefings and completing course studies.

Prerequisite: Minimum 2.500 overall GPA; and special approval.

Schedule Type: Lecture, Practical Experience, Seminar, Study Away

Contact Hours: 7 lecture, 24 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

POL 42990 WASHINGTON PROGRAM IN NATIONAL ISSUES (ELR) 15 Credit Hours

(Repeatable for credit) Annual spring semester resident-study in Washington, D.C. Credit hours divided among three units: lecture and course work, on-site briefings seminar and internship.

Prerequisite: Minimum 2.750 overall GPA; and junior standing; and special approval.

Schedule Type: Lecture, Practical Experience, Seminar, Study Away

Contact Hours: 7 lecture, 24 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

POL 43001 WICKED PROBLEMS: TACKLING GLOBAL ISSUES IN THE 21ST CENTURY 3 Credit Hours

(Cross-listed with GEOG 43070) This course provides an overview and analysis of the United Nations Sustainable Development Goals (SDG), as well as strategies that can be used for tackling them. The SDGs address the most serious problems faced by humankind today. These include poverty, hunger, inequality, climate change, economic development and environmental sustainability. A key characteristic of the SDGs is that they are known as "wicked problems." Wicked problems are complex issues that resist conventional approaches to problem solving, and for which existing solutions often create unintended consequences that only make the original problem worse. Emphasis is placed on problems of collective action, evidence-based public policies and interdisciplinary approaches to addressing global issues.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 43002 THE POLITICS OF INEQUALITY 3 Credit Hours

This course introduces students to national and transnational politics and policies that produce wealth, poverty and inequality. Along the way, it examines a range of sustainable development goals including, but not limited to, the elimination of poverty and hunger, access to quality education, decent work, reduced inequalities and responsible consumption and production. The course reviews different national or transnational case studies to assess different views and approaches to these goals. Consideration is given to them as a complex set of interconnected issues that involve education, occupation, well-being and the distribution of wealth in society. Additionally, the course examines political and policy issues that are barriers to reducing inequality.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 43003 GOOD GOVERNANCE AND SUSTAINABLE DEVELOPMENT 3 Credit Hours

This course focuses on the development of policies and institutions that are necessary for justice and good governance. It also introduces students to the system of international relations and growing body of international institutions that deliver and implement policies at the transnational level. Along the way, the course examines a range of United Nations Sustainable Development Goals (SDG). These include, but are not limited to, peace, justice, strong institutions and international partnerships. Students develop an understanding of the importance of effective political, civil and international institutions for establishing peace, prosperity and well-being.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 43499 CAPSTONE IN GLOBAL ISSUES (ELR) 1 Credit Hour

This course serves as the capstone to the certificate in Global Issues. Students integrate the concepts they have learned and relate them to their major field of study and/or professional endeavors.

Prerequisite: None.

Schedule Type: Project or Capstone

Contact Hours: 1 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

POL 50091 VARIABLE TOPIC SEMINAR 3 Credit Hours

(Slashed with POL 40091 and POL 70091) Variable topic seminar in political science.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 51191 SEMINAR: PROBLEMS IN AMERICAN GOVERNMENT 3 Credit Hours

(Repeatable for credit) For graduate students outside of political science who wish to take an undergraduate American government course for graduate credit. Students must meet all of the requirements of the 40000-level course and complete additional work as agreed upon by the instructor. May be taken more than once but never for more than 3 credit hours in any one semester. Instructor and course content may vary from semester to semester.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter-IP

POL 51391 SEMINAR: PROBLEMS IN PUBLIC POLICY 3 Credit Hours

(Repeatable for credit) For graduate students outside of political science who wish to take an undergraduate public policy course for graduate credit. Students must meet all of the requirements of the 40000-level course and complete additional work as agreed upon by the instructor. May be taken more than once but never for more than 3 credit hours in any one semester. Instructor and course content may vary from semester to semester.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

POL 51591 SEMINAR: PROBLEMS IN INTERNATIONAL RELATIONS/COMPARATIVE GOVERNMENT 3 Credit Hours

(Repeatable for credit) For graduate students outside of political science who wish to take an undergraduate international/comparative government course for graduate credit. Students must meet all of the requirements of the 40000-level course and complete additional work as agreed upon by the instructor. May be taken more than once but never for more than 3 credit hours in any one semester. Instructor and course content may vary from semester to semester.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

POL 60002 SCOPE AND EPISTEMOLOGY 3 Credit Hours

(Slashed with POL 70002) Introduces students to the philosophy of science and scientific inquiry within the context of the social sciences. Course presents a broad survey of leading paradigms and debates within political science.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60003 QUANTITATIVE METHODS I 3 Credit Hours

(Slashed with POL 70003) Provides a selective introduction to basic quantitative methods for the analysis of political and public policy data dealing with basic descriptive and inferential statistics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60004 QUANTITATIVE METHODS II 3 Credit Hours

(Slashed with POL 70004) Introduces students to multivariate quantitative techniques appropriate for the analysis of political and public policy data.

Prerequisite: POL 60003; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60010 QUALITATIVE RESEARCH METHODS 3 Credit Hours

(Slashed with POL 70010) Introduces the principles and methods of qualitative research, examining the place of qualitative research alongside discussions about positivist, interpretivist and critical approaches. A variety of qualitative research methods are introduced including social observation and ethnography, interviewing, discourse analysis, oral history, document analysis, historical analysis and case studies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60099 CAPSTONE SEMINAR 3 Credit Hours

Directed research to use completed coursework to identify ways in which scholarship speaks to application, e.g., in the non-profit, policy, consulting or programming world.

Prerequisite: Graduate standing.

Schedule Type: Master's Project, Research

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

POL 60101 STATUS OF THE FIELD: AMERICAN POLITICS AND POLICY 3 Credit Hours

(Slashed with POL 70101) Course provides a broad survey of the policy-making process in the U.S. government. Coverage includes formal government structures, as well as more informal networks of private groups that seek to influence public policy at the national level.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60102 AMERICAN POLICY PROCESS 3 Credit Hours

(Slashed with POL 70102) Course emphasizes the politics of the policy process. Among topics covered are theories of policy formulation implementation and evaluation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60103 CONGRESS, THE PRESIDENCY AND THE COURTS 3 Credit Hours

(Slashed with POL 70103) Focuses on the three branches of the U.S. government, specifically Congress, the presidency and the judiciary. Coverage includes institutional rules and procedures that shape the incentives of these political actors and ultimately policy outcomes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60106 URBAN POLICY AND POLITICS 3 Credit Hours

(Slashed with POL 70106) Urban public policy takes place within the context of suburbanization and metropolitan sprawl. Issues raised in this course include poverty, race and the role of business in local policymaking.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60108 AMERICAN POLITICAL BEHAVIOR 3 Credit Hours

(Slashed with POL 70108) Explores scholarship on the behavior of non-elite political actors, including various forms of electoral participation, voting, psychological attachment, affect, cognition, perception, attitude and belief. Additional topics include ethnic, racial and gender politics; political participation; voting choice; political psychology; politics and networks; macro politics; and connecting individual-level and macro-level findings with democratic outcomes and citizen capacity.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60191 SEMINAR IN AMERICAN POLITICS AND POLICY 3 Credit Hours

(Repeatable for credit)(Slashed with POL 70191) Seminar on current and important topics in American politics and policy. Subject matter varies depending on the emerging issue. Course may be repeated for credit toward a degree with departmental approval.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

POL 60302 BUREAUCRACY AND THE POLICYMAKING PROCESS 3 Credit Hours

(Slashed with POL 70302) This course provides students with a theoretical and practical understanding of the bureaucracy as a unit of analysis for policy studies. Of particular interest is the interaction of the bureaucracy with other policymaking institutions and non-state actors.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60501 STATUS OF THE FIELD: TRANSNATIONAL AND COMPARATIVE POLITICS AND POLICY 3 Credit Hours

(Slashed with POL 70501) Course introduces students to the primary concepts, theories and subfields of comparative and transnational politics. Each field of study is reviewed along with the primary subfields of analysis.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60502 GLOBAL GOVERNANCE 3 Credit Hours

(Slashed with POL 70502) Course examines issues, problems and debates regarding global governance in the contemporary world. Of primary interest is the array of actors in this process, including nation-states, intergovernmental organizations and nongovernmental organizations.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60503 FOREIGN POLICY ANALYSIS 3 Credit Hours

(Slashed with POL 70503) Course provides an overview of the diverse analytic traditions and issues that relate to the study of foreign policy. Areas of coverage include theories of foreign policy decision-making, levels of analysis and policy domains.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60507 CONFLICT TRANSFORMATION AND RECONCILIATION 3 Credit Hours

(Cross-listed with PACS 60070)(Slashed with POL 70507) Throughout the past 30 years, many states and societies have negotiated complicated transitions from authoritarianism, widespread human rights violations and intractable civil conflict toward various degrees of justice, truth-telling, reconciliation and democracy. Some have done it well and some have not; policy certainly matters in this politically potent arena. For example, political memory and accountability may be swept under the public rug—doing so may, or may not, trip up an experiment in democracy. Alternatively, truth-telling and justice may, or may not, be a springboard for reconciliation, healing and citizen empowerment. In this course, we focus on the policies and mechanisms used to constructively confront impunity and come to terms with past horrors. We analyze various international institutions like war crimes tribunals and truth commissions and various local mechanisms like Rwanda's Gacaca courts. We also study the differing roles of reparations paid to victims for past injustices, amnesties granted to former government officials, immunity being traded for truth-telling about the past and the impacts of commemoration and memorialization.

Prerequisite: POL 60501; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60511 INTERNATIONAL POLITICAL ECONOMY 3 Credit Hours

(Slashed with POL 70511) Introduces students to the study of how politics and economics interact on a global scale, covering the major theories of the international political economy, international monetary system, global trade and connections between international economics and domestic development.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60591 SEMINAR IN TRANSNATIONAL AND COMPARATIVE POLITICS AND POLICY 3 Credit Hours

(Repeatable for credit)(Slashed with POL 70591) Seminar on current and important topics in transnational and comparative politics and policy. Subject matter varies depending on the emerging issue.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

POL 60901 FOUNDATIONS OF CONFLICT ANALYSIS AND MANAGEMENT 3 Credit Hours

(Cross-listed with PACS 60000) (Slashed with POL 70901) Covers the historical development of the conflict analysis and management field; conflict theories; the dynamics by which conflicts escalate, stalemate and de-escalate; and theories of conflict intervention, resolution and transformation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60902 POWER, CONFLICT AND THE POLITICS OF GENDER 3 Credit Hours

(Cross-listed with PACS 60021)(Slashed with POL 70902) Examines power disparities and gender as sources of conflict in multiple arenas—including family, community, workplace and the political sphere. The intersections of gender and power in the generation and resolution of social conflicts are examined. Emphasis is placed on empowerment strategies and tactics used to transform gendered conflicts and redress power imbalances.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60903 IDENTITY DRIVEN CONFLICTS 3 Credit Hours

(Cross-listed with PACS 60020)(Slashed with POL 70903) Explores the roles played by ethnicity, race, religion, culture and other elements of identity in the generation, resolution and conduct of conflicts within and between groups. Physical and symbolic markers of difference are examined in order to understand both why groups differentiate themselves from one another and how mechanisms such as skin color, religious affiliation, ethnic background or cultural traditions can provide the impetus for conflict or the grounds for resolution.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60904 SOCIAL MOVEMENTS AND NONVIOLENT CONFLICTS 3 Credit Hours

(Cross-listed with PACS 60022)(Slashed with POL 70904) The waging and escalating of conflicts by social movements through nonviolent actions frequently shifts conflicts from one stage to another while also contributing to conflict transformation and to substantive social and political changes. Course focuses on social movement theories and practices, and on the complicated dynamics of nonviolent action campaigns waged by social movements.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60906 POLITICAL VIOLENCE 3 Credit Hours

(Slashed with POL 70906) Examines the dynamics, networks, interests and resource mobilization underlying state-sponsored political violence, focusing on "low-intensity conflict" and counter-insurgency, paramilitarism and genocide. Of special interest is the relationship of the state to various non-state actors, both perpetrators and victims, and the role of the international community in domestic-level violence.

Prerequisite: POL 60501 or POL 60901; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 60991 SEMINAR IN CONFLICT ANALYSIS AND MANAGEMENT 3 Credit Hours

(Repeatable for credit) (Slashed with POL 70991) Seminar on current and important topics in conflict analysis and management. Course may be repeated for credit toward a degree with departmental approval.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 61094 COLLEGE TEACHING IN POLITICAL SCIENCE 1 Credit Hour

(Repeatable for credit)(Slashed with POL 71094) Staff training and experience in college teaching; colloquia on professional ethics and responsibilities of political scientists. Maximum 4 credit hours applicable toward a degree with graduate studies committee approval.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

POL 61096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) An individual investigation (or independent study) is a student-initiated experience to pursue an area of interest not covered by a regular course offering, with the guidance of a Kent State faculty member. The faculty member, who teaches such courses, has the primary responsibility to decide the subject content, objectives to be achieved and effort to be expended by the student, and personally provides whatever instruction is required. The student is expected to complete pre-determined assignments, which may include a final research paper and presentation on the findings of the study. The faculty member periodically assesses the student's progress, determines the evaluation methods of the work presented and assigns the final grade.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

POL 61098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation. Credit hours may be applied toward meeting degree requirements with department approval and when a letter grade is given.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Standard Letter-IP

POL 61199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

POL 61299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: POL 61199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

POL 69091 SEMINAR IN QUANTITATIVE METHODS 3 Credit Hours

(Repeatable for credit) (Slashed with POL 79091) Focuses on select topics in quantitative methods, including limited and categorical dependent variables, hierarchical linear models, panel data, structural equation modeling and Q Methodology. More than one seminar may be offered.

Prerequisite: POL 60004; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

POL 69095 SPECIAL TOPICS IN POLITICAL SCIENCE AND PUBLIC POLICY 3 Credit Hours

(Repeatable for a maximum of 12 credit hours)(Slashed with POL 79095) Topic varies per course offering.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70002 SCOPE AND EPISTEMOLOGY 3 Credit Hours

(Slashed with POL 60002) Introduces students to the philosophy of science and scientific inquiry within the context of the social sciences. Course presents a broad survey of leading paradigms and debates within political science.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70003 QUANTITATIVE METHODS I 3 Credit Hours

(Slashed with POL 60003) Provides a selective introduction to basic quantitative methods for the analysis of political and public policy data dealing with basic descriptive and inferential statistics.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70004 QUANTITATIVE METHODS II 3 Credit Hours

(Slashed with POL 60004) Introduces students to multivariate quantitative techniques appropriate for the analysis of political and public policy data.

Prerequisite: POL 70003; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70010 QUALITATIVE RESEARCH METHODS 3 Credit Hours

(Slashed with POL 60010) Introduces the principles and methods of qualitative research, examining the place of qualitative research alongside discussions about positivist, interpretivist and critical approaches. A variety of qualitative research methods are introduced including social observation and ethnography, interviewing, discourse analysis, oral history, document analysis, historical analysis and case studies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70091 VARIABLE TOPIC SEMINAR 3 Credit Hours

(Slashed with POL 40091 and 50091) Variable topic seminar in political science.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70101 STATUS OF THE FIELD: AMERICAN POLITICS AND POLICY 3 Credit Hours

(Slashed with POL 60101) Course provides a broad survey of the policy-making process in the U.S. government. Coverage includes formal government structures, as well as more informal networks of private groups that seek to influence public policy at the national level.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70102 AMERICAN POLICY PROCESS 3 Credit Hours

(Slashed with POL 60102) Course emphasizes the politics of the policy process. Among topics covered are theories of policy formulation implementation and evaluation.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70103 CONGRESS, THE PRESIDENCY AND THE COURTS 3 Credit Hours

(Slashed with POL 60103) Focuses on the three branches of the U.S. government, specifically Congress, the presidency and the judiciary. Coverage includes institutional rules and procedures that shape the incentives of these political actors and ultimately policy outcomes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70106 URBAN POLICY AND POLITICS 3 Credit Hours

(Slashed with POL 60106) Urban public policy takes place within the context of suburbanization and metropolitan sprawl. Issues raised in this course include poverty, race and the role of business in local policymaking.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70108 AMERICAN POLITICAL BEHAVIOR 3 Credit Hours

(Slashed with POL 60108) Explores scholarship on the behavior of non-elite political actors, including various forms of electoral participation, voting, psychological attachment, affect, cognition, perception, attitude and belief. Additional topics include ethnic, racial and gender politics; political participation; voting choice; political psychology; politics and networks; macro politics; and connecting individual-level and macro-level findings with democratic outcomes and citizen capacity.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70191 SEMINAR IN AMERICAN POLITICS AND POLICY 3 Credit Hours

(Repeatable for credit) (Slashed with POL 60191) Seminar on current and important topics in American politics and policy. Subject matter varies depending on the emerging issue. This course may be repeated for credit with departmental approval.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

POL 70195 SPECIAL TOPICS IN PUBLIC ADMINISTRATION 3 Credit Hours

(Repeatable for maximum 12 credit hours)(Slashed with PADM 60195)

Topic varies per course offerings.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70198 RESEARCH IN PUBLIC ADMINISTRATION 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits earned may be applied toward a degree with department approval.

Prerequisite: Political science major; and doctoral standing; and special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

POL 70302 BUREAUCRACY AND THE POLICYMAKING PROCESS 3 Credit Hours

(Slashed with POL 60302) This course provides students with a theoretical and practical understanding of the bureaucracy as a unit of analysis for policy studies. Of particular interest is the interaction of the bureaucracy with other policymaking institutions and non-state actors.

Prerequisite: POL 60301 or POL 70301; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70371 GRADUATE INTRODUCTION TO PUBLIC ADMINISTRATION 3 Credit Hours

(Slashed with PADM 60371) Introductory course to the theory and study of public administration. Topics include evolution and characteristics of the modern nation state; core functions of public bureaucracy in any nation state; intergovernmental relations; formal and informal institutions and their role in policy; legal-regulatory processes; historical evolution of public administration as an academic field; and major paradigms in organization theory and internal organizational dynamics.

Prerequisite: Political science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70377 PUBLIC BUDGETING AND FINANCIAL MANAGEMENT 3 Credit Hours

(Slashed with PADM 60377) Focuses on two aspects of public financial analysis: budgeting and financial management. The topics in budgeting are the basic purposes of budgets as mechanisms of resource control and allocation, and as legal documents; distinct budget formats and cross-walking of formats; budget preparation; legislative review; implementation and auditing. The topics in financial management are the mechanisms and tools for financing public operations, debt management, fund accounting, analyzing budgets and forecasting.

Prerequisite: Political Science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70379 PROGRAM EVALUATION I 3 Credit Hours

(Slashed with PADM 60379) Introduction to evaluation of government programs. Emphasis on familiarizing students with the theory and specifically the techniques utilized under different evaluation formats.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70386 PUBLIC SECTOR INFORMATION TECHNOLOGY MANAGEMENT 3 Credit Hours

(Slashed with PADM 60386) Management of information technology systems in the public sector. Specific focus on: planning and acquisition of hardware and software and networking technologies, organizational governance and implementation, information security and privacy, legal requirements, IT service delivery and emerging enterprise technologies.

Prerequisite: Political Science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70387 ELECTRONIC GOVERNANCE 3 Credit Hours

(Slashed with PADM 60387) An introduction to electronic governance with an emphasis on public administration. Examines the implications of information and communication technology in public organizations with regard to democracy, civic engagement and performance improvement. Through case studies from the United States and across the world, students become familiar with the factors and issues surrounding the implementation of electronic governance on a comparative basis.

Prerequisite: Political Science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70392 INTERNSHIP IN PUBLIC ADMINISTRATION 3 Credit Hours

(Repeatable for credit) Provides an opportunity for students to gain practical experience and be exposed to processes of public decision making and policy development.

Prerequisite: Political Science major; and doctoral standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3 lecture

Grade Mode: Standard Letter-IP

POL 70470 PERSONAL ACCOUNTABILITY IN THE PUBLIC SERVICE 3 Credit Hours

(Slashed with PADM 60470) Focus is on students internalizing their role in the public service as stewards of the public trust. Topics covered include dimensions of stewardship: maintaining personal honor, protecting the liberty and dignity of the citizen, dimensions of justice, anti-corruption, incorporating principles of stewardship in their personal decision making and throughout the organization.

Prerequisite: Political Science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70471 NONPROFIT LAW 3 Credit Hours

(Slashed with PADM 60471) Introduction to legal issues for nonprofit organizations in the United States, including types of IRS tax-exempt status, basic requirements for establishing and operating nonprofit organizations specifically in Ohio.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70472 NONPROFIT BOARD-EXECUTIVE RELATIONS 3 Credit Hours

(Slashed with PADM 60472) Key aspects of effective nonprofit governance, major roles of nonprofit board members and their responsibilities and governance structures.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70475 CAPSTONE SEMINAR 3 Credit Hours

(Repeatable for credit) Students complete an approved, written project that is analytical and research-based.

Prerequisite: Political Science major; and doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

POL 70477 NONPROFIT FINANCIAL RESOURCE DEVELOPMENT 3 Credit Hours

(Slashed with PADM 60477) Successful strategies for fundraising and resource development for nonprofit organizations. Students are exposed to fundraising in practice and write a resource development plan.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70501 STATUS OF THE FIELD: TRANSNATIONAL AND COMPARATIVE POLITICS AND POLICY 3 Credit Hours

(Slashed with POL 60501) Course introduces students to the primary concepts, theories and subfields of comparative and transnational politics. Each field of study is reviewed along with the primary subfields of analysis.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70502 GLOBAL GOVERNANCE 3 Credit Hours

(Slashed with POL 60502) Course examines issues, problems and debates regarding global governance in the contemporary world. Of primary interest is the array of actors in this process, including nation-states, intergovernmental organizations and nongovernmental organizations.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70503 FOREIGN POLICY ANALYSIS 3 Credit Hours

(Slashed with POL 60503) Course provides an overview of the diverse analytic traditions and issues that relate to the study of foreign policy. Areas of coverage include theories of foreign policy decision-making, levels of analysis and policy domains.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70507 CONFLICT TRANSFORMATION AND RECONCILIATION 3 Credit Hours

(Slashed with PACS 60070 and POL 60507) Throughout the past 30 years, many states and societies have negotiated complicated transitions from authoritarianism, widespread human rights violations and intractable civil conflict toward various degrees of justice, truth-telling, reconciliation and democracy. Some have done it well and some have not; policy certainly matters in this politically potent arena. For example, political memory and accountability may be swept under the public rug—doing so may, or may not, trip up an experiment in democracy. Alternatively, truth-telling and justice may, or may not, be a springboard for reconciliation, healing and citizen empowerment. In this course, we focus on the policies and mechanisms used to constructively confront impunity and come to terms with past horrors. We analyze various international institutions like war crimes tribunals and truth commissions and various local mechanisms like Rwanda's Gacaca courts. We also study the differing roles of reparations paid to victims for past injustices, amnesties granted to former government officials, immunity being traded for truth-telling about the past and the impacts of commemoration and memorialization.

Prerequisite: POL 70501; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70511 INTERNATIONAL POLITICAL ECONOMY 3 Credit Hours

(Slashed with POL 60511) Introduces students to the study of how politics and economics interact on a global scale, covering the major theories of the international political economy, international monetary system, global trade and connections between international economics and domestic development.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70574 STRATEGIC PLANNING 3 Credit Hours

(Slashed with PADM 60574) Introduction to the practice of strategic planning as it relates to policy design and implementation by public and nonprofit organizations.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70591 SEMINAR IN TRANSNATIONAL AND COMPARATIVE POLITICS AND POLICY 3 Credit Hours

(Slashed with POL 60591) (Repeatable for credit) Seminar on current and important topics in transnational and comparative politics and policy. Subject matter varies depending on the emerging issue. This course may be repeated for credit with departmental approval.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

POL 70901 FOUNDATIONS OF CONFLICT ANALYSIS AND MANAGEMENT 3 Credit Hours

(Slashed with PACS 60000 and POL 60901) Covers the historical development of the conflict analysis and management field; conflict theories; the dynamics by which conflicts escalate, stalemate and de-escalate; and theories of conflict intervention, resolution and transformation.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70902 POWER, CONFLICT AND THE POLITICS OF GENDER 3 Credit Hours

(Slashed with PACS 60021 and POL 60902) Examines power disparities and gender as sources of conflict in multiple arenas—including family, community, workplace and the political sphere. The intersections of gender and power in the generation and resolution of social conflicts are examined. Emphasis is placed on empowerment strategies and tactics used to transform gendered conflicts and redress power imbalances.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70903 IDENTITY DRIVEN CONFLICTS 3 Credit Hours

(Slashed with PACS 60020 and POL 60903) Explores the roles played by ethnicity, race, religion, culture and other elements of identity in the generation, resolution and conduct of conflicts within and between groups. Physical and symbolic markers of difference are examined in order to understand both why groups differentiate themselves from one another and how mechanisms such as skin color, religious affiliation, ethnic background or cultural traditions can provide the impetus for conflict or the grounds for resolution.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70904 SOCIAL MOVEMENTS AND NONVIOLENT CONFLICTS 3 Credit Hours

(Slashed with PACS 60022 and POL 60904) The waging and escalating of conflicts by social movements through nonviolent actions frequently shifts conflicts from one stage to another while also contributing to conflict transformation and to substantive social and political changes. Course focuses on social movement theories and practices, and on the complicated dynamics of nonviolent action campaigns waged by social movements.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70906 POLITICAL VIOLENCE 3 Credit Hours

(Slashed with POL 60906) Examines the dynamics, networks, interests and resource mobilization underlying state-sponsored political violence, focusing on "low-intensity conflict" and counter-insurgency, paramilitarism and genocide. Of special interest is the relationship of the state to various non-state actors, both perpetrators and victims, and the role of the international community in domestic-level violence.

Prerequisite: POL 70501 or POL 70901; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 70991 SEMINAR IN CONFLICT ANALYSIS AND MANAGEMENT 3 Credit Hours

(Repeatable for credit) (Slashed with POL 60991) Seminar on current and important topics in conflict analysis and management. Course may be repeated for credit toward a degree with departmental approval.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

POL 71094 COLLEGE TEACHING IN POLITICAL SCIENCE 1 Credit Hour

(Repeatable for credit)(Slashed with POL 61094) Staff training and experience in college teaching; colloquia on professional ethics and responsibilities of political scientists. Maximum 4 credit hours applicable toward a degree with graduate studies committee approval.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

POL 79091 SEMINAR IN QUANTITATIVE METHODS 3 Credit Hours

(Repeatable for credit) (Slashed with POL 69091) Focuses on select topics in quantitative methods, including limited and categorical dependent variables, hierarchical linear models, panel data, structural equation modeling and Q Methodology. More than one seminar may be offered.

Prerequisite: POL 70004; and doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

POL 79095 SPECIAL TOPICS IN POLITICAL SCIENCE AND PUBLIC POLICY 3 Credit Hours

(Repeatable for a maximum of 12 credit hours)(Slashed with POL 69095) Topic varies per course offering.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

POL 81096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) An individual investigation (or independent study) is a student-initiated experience to pursue an area of interest not covered by a regular course offering, with the guidance of a Kent State faculty member. The faculty member, who teaches such courses, has the primary responsibility to decide the subject content, objectives to be achieved and effort to be expended by the student, and personally provides whatever instruction is required. The student is expected to complete pre-determined assignments, which may include a final research paper and presentation on the findings of the study. The faculty member periodically assesses the student's progress, determines the evaluation methods of the work presented and assigns the final grade.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

POL 81098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed their candidacy examination. Credits may be applied toward degree if department approves and when letter grade is given.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Standard Letter-IP

POL 81199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration during at least two semesters is required, and the first of which is the semester during which dissertation work begins and continues until the completion of 30 credit hours. Doctoral students must complete a minimum of 30 credit hours post-master's (or equivalent advanced degree) or a minimum of 60 credit hours post-bachelor's to receive special approval to enroll in POL 81199.

Prerequisite: Political Science major; and doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

POL 81299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required for doctoral students who have completed the initial 30 credit hours of POL 81199 and continuing until all degree requirements are met.

Prerequisite: 30 credit hours of POL 81199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Public Administration (PADM)**PADM 60195 SPECIAL TOPICS IN PUBLIC ADMINISTRATION 3 Credit Hours**

(Repeatable for credit) (Cross-listed with POL 70195) Topic varies per course offerings.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60198 RESEARCH IN PUBLIC ADMINISTRATION 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits earned may be applied toward a degree with department approval.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

PADM 60200 NONPROFIT ADVOCACY 3 Credit Hours

This course explores the U.S. public-policy making process as it applies to nonprofit organizations. Nonprofits influence policy making or "advocacy" through a variety of methods, such as lobbying, campaigning, protesting, and policy monitoring. The course explores how nonprofit organizations both shape and are shaped by public policy.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60310 LEADERSHIP IN THE NONPROFIT AND PUBLIC SECTOR 3 Credit Hours

This course teaches students theory, practice, and skills for leading non-profit and public organizations. Topics include: organizational theory and behavior; organizational culture; integrity and ethics; group dynamics; conflict management; and creating an environment that promotes diversity and inclusion.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60371 GRADUATE INTRODUCTION TO PUBLIC ADMINISTRATION 3 Credit Hours

(Cross-listed with POL 70371) Introductory course to the theory and study of public administration. Topics include evolution and characteristics of the modern nation state; core functions of public bureaucracy in any nation state; intergovernmental relations; formal and informal institutions and their role in policy; legal-regulatory processes; historical evolution of public administration as an academic field; and major paradigms in organization theory and internal organizational dynamics.

Prerequisite: Public administration major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60375 PUBLIC PERSONNEL ADMINISTRATION 3 Credit Hours

Study of public personnel systems, including underlying system values and current problems with emphasis on skill development and understanding of techniques for public personnel managers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60376 LABOR MANAGEMENT RELATIONS IN THE PUBLIC SECTOR 3 Credit Hours

This course focuses on issues peculiar to public sector labor relations, including the impact of public employee unionism on traditional merit systems and personnel policy decision processes.

Prerequisite: PADM 60375; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60377 PUBLIC BUDGETING AND FINANCIAL MANAGEMENT 3 Credit Hours

(Cross-listed with POL 70377) Focuses on two aspects of public financial analysis: budgeting and financial management. The topics in budgeting are the basic purposes of budgets as mechanisms of resource control and allocation, and as legal documents; distinct budget formats and cross-walking of formats; budget preparation; legislative review; implementation and auditing. The topics in financial management are the mechanisms and tools for financing public operations, debt management, fund accounting, analyzing budgets and forecasting.

Prerequisite: Public administration major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60379 PROGRAM EVALUATION I 3 Credit Hours

(Cross-listed with POL 70379) Introduction to evaluation of government programs. Emphasis on familiarizing students with the theory and specifically the techniques utilized under different evaluation formats.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60381 METHODS IN PUBLIC ADMINISTRATION 3 Credit Hours

This course is a graduate-level introduction to statistical methods and their use in public administration.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60382 SEMINAR IN PUBLIC ADMINISTRATION 3 Credit Hours

Study of selected problem areas in public service organizations with emphasis on understanding the factors contributing to them, their solution and literature bearing on the problems.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60386 PUBLIC SECTOR INFORMATION TECHNOLOGY MANAGEMENT 3 Credit Hours

(Cross-listed with POL 70386) Management of information technology systems in the public sector. Specific focus on: planning and acquisition of hardware and software and networking technologies, organizational governance and implementation, information security and privacy, legal requirements, IT service delivery and emerging enterprise technologies.

Prerequisite: Public administration major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60387 ELECTRONIC GOVERNANCE 3 Credit Hours

(Slashed with POL 70387) An introduction to electronic governance with an emphasis on public administration. Examines the implications of information and communication technology in public organizations with regard to democracy, civic engagement and performance improvement. Through case studies from the United States and across the world, students become familiar with the factors and issues surrounding the implementation of electronic governance on a comparative basis.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60392 INTERNSHIP IN PUBLIC ADMINISTRATION 3-6 Credit Hours

(Repeatable for credit) Provides an opportunity for students to gain practical experience and be exposed to processes of public decision making and policy development.

Prerequisite: Public Administration major; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9-18 other

Grade Mode: Satisfactory/Unsatisfactory

PADM 60470 PERSONAL ACCOUNTABILITY IN THE PUBLIC SERVICE 3 Credit Hours

(Cross-listed with POL 70470) Focus is on students internalizing their role in the public service as stewards of the public trust. Topics covered include dimensions of stewardship: maintaining personal honor, protecting the liberty and dignity of the citizen, dimensions of justice, anti-corruption, incorporating principles of stewardship in their personal decision making and throughout the organization.

Prerequisite: Public administration major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60471 NONPROFIT LAW 3 Credit Hours

(Cross-listed with POL 70471) Introduction to legal issues for nonprofit organizations in the United States, including types of IRS tax exempt status, basic requirements for establishing/operating nonprofit organizations specifically in Ohio.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60472 NONPROFIT BOARD EXEC RELATIONS 3 Credit Hours

(Cross-listed with POL 70472) Key aspects of effective nonprofit governance, major roles of nonprofit board members and their responsibilities and governance structures.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60477 NONPROFIT FINANCIAL RESOURCE DEVELOPMENT 3 Credit Hours

(Cross-listed with POL 70477) Successful strategies for fundraising and resource development for nonprofit organizations. Students are exposed to fundraising in practice and write a resource development plan.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PADM 60499 PORTFOLIO AND CAPSTONE 3 Credit Hours

During this culminating semester of the M.P.A. program, students engage in three key activities to demonstrate their comprehensive understanding and skills developed throughout the course. These activities include: (1) craft a reflective capstone paper that describes the skills and expertise gained throughout M.P.A. courses and link them to core competencies, (2) compile a portfolio showcasing their most significant works from the core M.P.A. courses, representing their proficiency in each of the five main competencies, and (3) complete an online exit survey as a formal conclusion to the M.P.A. program.

Prerequisite: Public Administration major; and graduate standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Standard Letter

PADM 60574 STRATEGIC PLANNING 3 Credit Hours

(Cross-listed with POL 70574) Introduction to the practice of strategic planning as it relates to policy design and implementation by public and nonprofit organizations.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Department of Psychological Sciences

Psychology (PSYC)

PSYC 11762 GENERAL PSYCHOLOGY (KSS) 3 Credit Hours

Introduction to the scientific approach to understanding human behavior and mental processes such as emotions, perceptions and cognitions. Topics may include personality, social and environmental factors, biological aspects of behavior and the experience of emotion and psychological disorders.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

PSYC 20651 CHILD PSYCHOLOGY (KSS) 3 Credit Hours

Course explores theories and processes related to child development. The course expands students' knowledge of general psychology by focusing on physical, emotional, cognitive and social development from conception through adolescence. This course is required for the child psychology concentration, and is particularly valuable for students pursuing graduate school or careers involving work with children and families.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

PSYC 21211 PSYCHOLOGY OF EVERYDAY LIFE (KSS) 3 Credit Hours

Course provides a review of theories, concepts and research findings that contribute to the understanding of human adjustment. Sample topics include technology, personality, stress and coping, relationships, psychological disorders and psychotherapy.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, Transfer Module Social Sciences

PSYC 21621 QUANTITATIVE METHODS IN PSYCHOLOGY I 3 Credit Hours

Course provides an introduction to quantitative (statistical) methods for psychology and related sciences. This course provides students with the skills to read, interpret and compute a variety of statistics. The aim is to make students more statistically literate and, therefore, more informed critical consumers of quantitative research for the psychological sciences and related disciplines. Students learn fundamental concepts related to the use of quantitative methods for research. This includes descriptive and inferential statistical methods (ANOVA, t-test and correlation), as well as the application of statistics to real-world situations, such as the evaluation of intervention effectiveness. Statistical literacy is an essential tool/skill for evaluating research for psychology and other sciences.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 30005 CAREER PATHWAYS IN PSYCHOLOGY 1 Credit Hour

Course is designed to equip students with a better understanding of the career pathways available to them. There are two approaches: (1) to learn about careers available at the bachelor's level, and (2) for students who may intend to pursue graduate study to learn about graduate school. Students who major in psychology pursue graduate work within many fields, including medicine, law, business, counseling, social work, higher education administration and psychology. Within psychology, there are many subdisciplines at the master's and doctoral level, including clinical, health, school, cognitive, social, forensic, industrial/organizational, counseling and more. Using a combination of videos, articles and activities, students learn about many different topics and strategies related to careers and the graduate school application process.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

PSYC 30006 BOOSTING HAPPINESS: EXPLORING POSITIVE PSYCHOLOGICAL INTERVENTIONS 1 Credit Hour

Students review theories of stability and change in happiness, and learn about positive psychological interventions to boost happiness and the science behind them. Students try out and reflect on different interventions and review the evidence on intervention effectiveness.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

PSYC 30111 FORENSIC PSYCHOLOGY 3 Credit Hours

What does it mean to say that someone is a psychopath? What are the factors that help us predict someone's risk of future violence? When is someone not legally responsible for a crime they committed? When called upon by the courts to perform an evaluation, how can a psychologist defend their findings in an adversarial courtroom? This course surveys major areas of forensic psychology, which focuses on the science and practice of psychology in legal contexts. Topics include, but are not limited to, roles and responsibilities of forensic psychologists, forensic psychological assessment, psychological theories of criminal behavior and civil commitment.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 30232 SCIENCE OF WELL-BEING 3 Credit Hours

What makes people happy? Does money buy happiness or do unhappy people not know where to shop? Does marriage make men happier and women unhappier? Is using social media harmful or beneficial for well-being? Can well-being be increased? This course reviews the scientific evidence regarding these and other questions about the determinants of happiness from an interdisciplinary perspective (psychology, economics, philosophy). Corequisites:

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 30651 ADOLESCENT PSYCHOLOGY 3 Credit Hours

Course covers the theories, concepts and research findings that contribute to the understanding of the physical, intellectual, educational, personality and social development of adolescents in contemporary society.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

PSYC 30652 SOCIAL AND PERSONALITY DEVELOPMENT 3 Credit Hours

Processes and findings in social and personality development, with a focus on childhood and adolescence. Students examine individual differences, as well as developmental changes, in social function and personality.

Prerequisite: HDF 24012 or PSYC 20651; and PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 30655 CHILDREN'S THINKING 3 Credit Hours

Focuses on how children's cognitive processes and mental representations change from infancy to early adulthood. Theoretical claims, empirical findings and methodological issues are critically evaluated. Topics include children's visual and auditory perception, language and literacy, learning and memory, mathematical and spatial thinking, logical and scientific reasoning, problem solving, theory of mind and social cognition.

Prerequisite: HDF 24012 or PSYC 20651; and PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 30656 PSYCHOLOGY OF AGING 3 Credit Hours

Exploration of basic research and theory covering the psychological consequences of aging and psychological factors that affect the behavior of older persons.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 30821 PSYCHOLOGY OF MOTIVATION 3 Credit Hours

Course explores motivation as it relates to performance, achievement, education, learning and the broader topic of motivation and optimal experiences. It includes an overview of motivational theory and what motivation means in relation to human beings in general, and more specifically in the context of achievement and education. It also covers research articles and other sources to explore the efficacy of motivation theories to explain achievement. Theories reviewed include expectancy by value theory, social cognitive theory, intrinsic motivation, attribution theory and achievement theory. It also covers more recent applications of cognitive motivational approaches such as Dweck's Theory of Intelligence.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 30822 SPORT PSYCHOLOGY 3 Credit Hours

Course provides an introduction to numerous aspects of sport psychology. Topics include the use of psychological theories and interventions within sport and performance settings. It can include topics such as performance anxiety, maintaining focus under pressure, motivation and leadership, among others.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 31141 PERCEPTION 3 Credit Hours

Course investigates how humans detect, organize and interpret information from the environment. It considers how both biological and psychological process create and influence our perception of the world.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 31282 PERSONALITY 3 Credit Hours

Course offers an in-depth exploration of personality psychology, examining the primary frameworks for conceptualizing personality traits and individual differences (such as the Big Five traits); research methods; and current topics about understanding individual differences in human behavior, thought and emotion. Students investigate how personality is assessed; how people judge the personalities of themselves and others; personality processes; stability and change in personality; developmental patterns of personality traits; environmental, cultural and genetic influences on personality; and consequences of personality within domains such as health, work and relationships. Students have a chance to learn about and reflect on their own personality throughout the course.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

PSYC 31498 UNDERGRADUATE RESEARCH (ELR) 1-6 Credit Hours

(Repeatable for credit) Individual research open to qualified students.

Prerequisite: PSYC 11762; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

PSYC 31532 SOCIAL PSYCHOLOGY 3 Credit Hours

Course provides a thorough introduction to social psychology, the scientific study of how individuals think, feel and behave in social situations. Students explore the fundamental theories, research methods and key findings that illuminate the complex interplay between individuals and their social environments. Key topics covered throughout this course may include social cognition and perception; attitudes and attitude change; social influence and persuasion; conformity, compliance and obedience; interpersonal attraction and close relationships; prosocial behavior and altruism; aggression and antisocial behavior; prejudice, stereotyping and discrimination; cultural influences on social behavior; and applied social psychology in real-world settings.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

PSYC 31574 RESEARCH METHODS IN PSYCHOLOGY (ELR) 3 Credit Hours

Psychology is a science based on rigorous research that examines human thoughts, feelings and behaviors. This course covers the rationale, logic and procedures of scientific research in psychology, with an emphasis on measurement, causal inference and research design. One goal of this course is providing students with the skills to be good consumers of research. Many of the skills learned throughout this course apply to research within many fields.

Prerequisite: PSYC 11762 and PSYC 21621.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

PSYC 31684 QUANTITATIVE METHODS IN PSYCHOLOGY II 3 Credit Hours

Course builds on PSYC 21621 to cover additional quantitative (statistical) methods of psychology and related sciences. Topics may include small sample theory, analysis of variance, linear regression and nonparametric statistics (e.g. chi-square). The course may include qualitative and computer-based data analyses using statistical software.

Prerequisite: PSYC 21621.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 31773 INDUSTRIAL PSYCHOLOGY 3 Credit Hours

Course introduces students to principles, facts and theories of psychology applied to people at work. This course is sometimes called industrial-organizational (I/O) psychology, which is a field that applies psychological principles to the workplace. The focus of this course is developing a conceptual and applied understanding regarding motivation and satisfaction at work, personnel selection and placement, training and development, performance appraisal, organizational development, quality of work life, ergonomics and consumer psychology.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40111 PSYCHOPATHOLOGY 3 Credit Hours

Course surveys the definitions and biological, psychological and sociocultural causes of various psychological disorders. Historically, this course has been called and is equivalent to abnormal psychology. The psychological disorders covered include mood disorders (e.g., depression, bipolar disorder) and anxiety, obsessive-compulsive and related disorders. The course incorporates illustrations of these disorders using case studies. Overview of treatment approaches to these disorders may be included.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

PSYC 40112 PSYCHOLOGICAL DISORDERS OF CHILDHOOD AND ADOLESCENCE 3 Credit Hours

Course covers the biological, psychological and sociocultural factors influencing the development of psychological disorders in children and adolescents such as neurodevelopmental, mood and anxiety disorders. Emphasis is placed on conceptual and research issues and the application of knowledge to understanding diagnosis and case studies of specific disorders.

Prerequisite: PSYC 11762; and HDF 24012 or PSYC 20651 or PSYC 30651; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40115 THE PSYCHOBIOLOGY OF LOVE AND WAR 3 Credit Hours

How does our biology conspire towards certain social outcomes? How might tiny molecules coursing through our veins help bring us together and tear us apart? This course covers psychological and neuroscientific research on the subtle and not-so-subtle influence of hormones on the pro- and anti-social ways in which we behave. Specifically, the course explores the relationships between long- and short-term exposure to particular hormones and behaviors that emerge in the contexts of attraction and mating, affiliation, aggression, dominance and threats to safety and security. This content will be presented alongside both the basic anatomy and physiology of the endocrine system and representative empirical research that has led to important discoveries.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40231 PSYCHOLOGICAL ASSESSMENT 3 Credit Hours

Course examines the methods psychologists use to develop assessment tools and determine whether these tools are beneficial. It also reviews the various types of psychological tests available, the most popular tests in use today and some of the challenges and controversies surrounding the assessment process. This course is particularly valuable for students interested in clinical psychology or forensic psychology.

Prerequisite: PSYC 11762 and PSYC 21621.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40382 PEDIATRIC PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 50382 and PSYC 70382) Survey of the current topics and research for the field of pediatric (or child health) psychology. Includes a general overview of a number of pediatric psychology topics, including opportunities for more focused study of specific conditions and illnesses. Class sessions cover a mix of general issues (e.g., systems, adherence, diversity, stress and coping), descriptions of clinical roles for pediatric psychology (e.g., consultation liaison, multidisciplinary teams) and specific pediatric conditions with a focus on understanding the role of pediatric psychology.

Prerequisite: PSYC 20651 and PSYC 31574.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40383 INTRODUCTION TO CLINICAL PSYCHOLOGY 3 Credit Hours

Course provides a foundational overview of clinical psychology, introducing students to the principles, practices and challenges of the field. It explores the application of psychological theories and evidence-based techniques to understand, assess and treat various psychological disorders and promote mental health. The course includes models of understanding abnormal behavior, treatment of individuals and ethics and professional issues of clinical psychology.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40445 COGNITIVE PSYCHOLOGY 3 Credit Hours

Cognitive psychology is a survey of the study of human attention, memory and thinking. This course addresses a variety of topics, including selective attention, short-term and long-term memory, encoding and retrieval processes, problem solving, language and many others.

Although these represent a diverse set of topics, this course connects them with common themes and questions, such as "How does the human mind operate?" and "How do limitations of the human mind impact our success in life?" For each topic, the course covers the nature of the problem to be studied and methods that have been used to investigate it. The course primarily explores scientific theories – that is, explanations for human behavior with respect to each topic covered – but may also cover questions of general public interest relevant to everyday life, such as "Can you train your brain by playing games?" and "How good is eyewitness testimony?"

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40446 COGNITIVE NEUROSCIENCE 3 Credit Hours

Covers the cognitive and neural processes that underlie vision, attention, spatial processing, memory, language, social processes, executive functioning and action. Introduces basic brain structure and the behavioral and functional imaging techniques used to study the brain bases of cognition. Data from patients with neurological disorders such as Alzheimer's, aphasia and amnesia are also examined.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40461 PSYCHOLOGY OF LANGUAGE 3 Credit Hours

Investigates psychological processes involved with language production, comprehension and development. Within each broad area, the emphasis is on theories; psychological experiments; key findings; and the relationships between theory, method and data.

Prerequisite: PSYC 11762 and PSYC 40445.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 40625 DEVELOPMENT OF GENDER ROLE AND IDENTITY 3 Credit Hours

A life-span, developmental model is used to analyze the changes that occur with age in gender-related role performance and identity formation.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 41043 BASIC LEARNING PROCESSES 3 Credit Hours

Throughout the course of history, humans have wondered how we come to know things. The purpose of this course is to impart to students the information that researchers have gathered that attempts to answer this age-old question. Throughout the semester, the course covers topics such as Pavlovian conditioning, instrumental (operant) learning, memory and cognition, all of which are as integral to our lives as eating and breathing. As a bonus, students have the opportunity to learn critical thinking as well as increase their understanding of the nature of the scientific process.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 41363 BIOPSYCHOLOGY 3 Credit Hours

Rigorous course covering the relationship between brain and behavior at the physiological, chemical and anatomical levels. Focuses on the association between the central nervous system and various processes and behaviors such as learning, emotions, neurological disorders and psychopathology. Students with no background of or coursework covering biological science should plan to devote considerable time to mastering the relevant concepts for this course (e.g., structure and function of neurons).

Prerequisite: PSYC 11762; and sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 41364 DRUGS AND BEHAVIOR 3 Credit Hours

Provides an overview of drug taking in society, the actions of drugs in the body and the effects of drugs on behavior. Focus is on drugs and the nervous system; psychopharmacology; and actions and side effects of such drugs as alcohol, opiates, stimulants, marijuana, hallucinogens, depressants and performance-enhancing drugs. Particular focus is on medications for psychiatric disorders; abuse potential; and the causes of addiction, dependence and relapse.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 41395 SPECIAL TOPICS IN CHILD PSYCHOLOGY 3 Credit Hours

(Repeatable for credit)(Slashed with PSYC 51395 and PSYC 71395) In-depth examination of particular topics of current interest to faculty and students. Specialized areas of child psychology. Specific topic varies per course offering.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 41492 INTERNSHIP IN PSYCHOLOGY (ELR) 1-6 Credit Hours
(Repeatable for credit) Application of psychological knowledge and skills in applied settings. Allows academic credit for participation as an intern at approved internship sites, including social service, non-profit agencies, government agencies and hospital settings.

Prerequisite: 9 credit hours of psychology courses; and minimum 3.000 overall GPA; and psychology major; and junior standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

PSYC 41495 SPECIAL TOPICS IN PSYCHOLOGY 1-3 Credit Hours

(Repeatable for credit) In-depth examination of particular topics of current interest to faculty and students. Specialized areas of research theory or methodology may be covered. Specific topics announced.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PSYC 41496 INDIVIDUAL INVESTIGATION (ELR) 1-6 Credit Hours

(Repeatable for credit) Involves participation in empirical research, review of psychological literature and preparation of a paper or annotated bibliography.

Prerequisite: PSYC 11762; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-18 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

PSYC 41573 LABORATORY EXPERIENCE IN PSYCHOLOGICAL RESEARCH: SOCIAL/CLINICAL (WIC) 3 Credit Hours

(Repeatable for credit) Intensive experience in the conduct, analysis and reporting of empirical research in social or clinical psychology. Specific content varies with instructor.

Prerequisite: PSYC 11762 and PSYC 21621 and PSYC 31574; and minimum 3.200 overall GPA.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PSYC 41574 LABORATORY EXPERIENCE IN PSYCHOLOGICAL RESEARCH: COGNITIVE/LEARNING (WIC) 3 Credit Hours

(Repeatable for credit) Intensive experience in the conduct, analysis and reporting of empirical research in cognitive psychology or human/animal learning. Specific content varies with instructor.

Prerequisite: PSYC 11762 and PSYC 21621 and PSYC 31574; and minimum 3.200 overall GPA; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PSYC 41581 HEALTH PSYCHOLOGY 3 Credit Hours

Course provides a broad overview of the field of health psychology. Health psychology is an exciting field of study that examines the bi-directional relationship between psychology and health: How can psychology be used to understand and improve health, and how does our health influence how we think, feel and behave? The main goals of the course are to 1) provide an overview of basic theory and research of health psychology, 2) examine specific contributions of health psychology to understanding acute and chronic diseases, 3) analyze the role of psychology in preventing illness and promoting wellness, and 4) illustrate how principles of health psychology may be applied to everyday life.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 41584 THE PSYCHOLOGY OF EXERCISE 3 Credit Hours

Provides an introduction to exercise psychology, which is the application of psychology to promote, maintain, enhance and explain the parameters of exercise. Course introduces students to the cutting-edge research and practical application of exercise psychology. Topics include the use of psychological theory to predict adoption and adherence to exercise behavior; social and personality influences on exercise behavior; research about the effectiveness of various exercise interventions; and consequences of exercise, including mental health states such as depression and anxiety, emotional well-being, self-esteem, self-concept, health-related quality of life and cognition.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 41595 SPECIAL TOPICS IN COUNSELING CAREERS 3 Credit Hours

(Repeatable for credit)(Slashed with PSYC 51595 and PSYC 71595) In-depth examination of particular topics of current interest to faculty and students. Specialized areas of psychology relevant to counseling careers. Topic varies per course offering.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 41901 WRITING IN PSYCHOLOGY (WIC) 1 Credit Hour

Writing-intensive course taken in conjunction with a 3-credit-hour, upper-division psychology course (may not be taken with PSYC 31498, PSYC 41498, PSYC 41573, PSYC 41574 or PSYC 41993).

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PSYC 41980 RESEARCH WRITING IN PSYCHOLOGY (WIC) 1 Credit Hour

Writing-intensive course taken in conjunction with PSYC 31574.

Prerequisite: ENG 21011 or HONR 10297.

Pre/corequisite: PSYC 31574.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PSYC 41993 VARIABLE TITLE WORKSHOP IN PSYCHOLOGY 1-6 Credit Hours

(Repeatable for credit) Specific topic varies per course offering.

Prerequisite: PSYC 11762; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

PSYC 42574 ADVANCED RESEARCH METHODS 3 Credit Hours

Course helps students integrate information learned throughout previous courses, such as PSYC 31574, to better understand the process of conducting research within the field of psychology. Students gain hands-on experience with using basic statistical analyses to answer hypotheses, reviewing scientific literature and generating hypotheses, testing hypotheses using a dataset and presenting research findings.

Prerequisite: PSYC 31574; and minimum 3.200 overall GPA.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 43001 CLINICAL NEUROANATOMY 3 Credit Hours

(Slashed with PSYC 53001 and PSYC 73001) Course examines the anatomical organization of the human brain, emphasizing functional aspects of various neural systems, neuroimaging and topics of clinical relevance. Students must have a conceptual understanding of central nervous system organization and memorization of specific neural structures and pathways, as well as knowledge of the impact of structure and systems dysfunction.

Prerequisite: Minimum 3.250 overall GPA; and junior standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 47385 BROKEN BRAINS: INTRODUCTION TO CLINICAL NEUROPSYCHOLOGY 3 Credit Hours

Clinical neuropsychology is the study of brain-behavior relationships or the ways in which the brain allows people to think, feel and behave in their everyday life. Course introduces students to cutting-edge research into the inner workings of the brain in both healthy individuals and those with neurological disorders (e.g. Alzheimer's disease, brain injury, ADHD, bipolar disorder). Topics include organization of the brain; how people learn, pay attention and solve problems; brain plasticity; neurological disorders; and neuropsychological assessment.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 47387 NEUROPSYCHOPHARMACOLOGY 3 Credit Hours

(Slashed with PSYC 57387 and PSYC 77387) (Cross-listed with NEUR 47387) Neuropsychopharmacology is the study of how drugs and other chemicals affect brain and behavior. Course introduces students to the behavioral effects of psychoactive therapeutic drugs and neurotoxic chemicals in relation to their neural and molecular mechanisms of action. Covers general principles of neuropsychopharmacology; nervous system structure in relation to behavior and mind, brain and behavioral systems that are affected by different classes of drugs and toxic chemicals; and methods employed in neuropsychopharmacology research.

Prerequisite: PSYC 11762.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 50382 PEDIATRIC PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 40382 and PSYC 70382) Survey of the current topics and research for the field of pediatric (or child health) psychology. Includes a general overview of a number of pediatric psychology topics, including opportunities for more focused study of specific conditions and illnesses. Class sessions cover a mix of general issues (e.g., systems, adherence, diversity, stress and coping), descriptions of clinical roles for pediatric psychology (e.g., consultation liaison, multidisciplinary teams) and specific pediatric conditions with a focus on understanding the role of pediatric psychology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 51395 SPECIAL TOPICS IN CHILD PSYCHOLOGY 3 Credit Hours

(Repeatable for credit)(Slashed with PSYC 41395 and PSYC 71395) In-depth examination of particular topics of current interest to faculty and students. Specialized areas of child psychology. Specific topic varies per course offering.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 51595 SPECIAL TOPICS IN COUNSELING CAREERS 3 Credit Hours

(Repeatable for credit)(Slashed with PSYC 41595 and PSYC 71595) In-depth examination of particular topics of current interest to faculty and students. Specialized areas of psychology relevant to counseling careers. Topic varies per course offering.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 51993 VARIABLE TITLE WORKSHOP IN PSYCHOLOGY 1-6 Credit Hours

(Repeatable for credit) Specific topic varies per course offering.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

PSYC 53001 CLINICAL NEUROANATOMY 3 Credit Hours

(Slashed with PSYC 43001 and PSYC 73001) Course examines the anatomical organization of the human brain, emphasizing functional aspects of various neural systems, neuroimaging and topics of clinical relevance. Students must have a conceptual understanding of central nervous system organization and memorization of specific neural structures and pathways, as well as knowledge of the impact of structure and systems dysfunction.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 57387 NEUROPSYCHOPHARMACOLOGY 3 Credit Hours
(Slashed with PSYC 47387 and PSYC 77387) Neuropsychopharmacology is the study of how drugs and other chemicals affect brain and behavior. Course introduces students to the behavioral effects of psychoactive therapeutic drugs and neurotoxic chemicals in relation to their neural and molecular mechanisms of action. Covers general principles of neuropsychopharmacology; nervous system structure in relation to behavior and mind, brain and behavioral systems that are affected by different classes of drugs and toxic chemicals; and methods employed in neuropsychopharmacology research.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60105 DEVELOPMENTAL PSYCHOPATHOLOGY 3 Credit Hours
(Slashed with PSYC 70105) Nature and theoretical explanations of various forms of psychopathology in children and adults. Students learn about the methods used to research psychopathology and understand contemporary controversies in the study of developmental psychopathology.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60192 INTEGRATION PRACTICUM 1-3 Credit Hours
(Repeatable for credit) Integration of assessment, psychopathology and psychotherapy coursework. Emphasis on learning how to conceptualize cases in general and from differing theoretical perspectives.

Prerequisite: PSYC 60292 and PSYC 60792; and clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture, Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 60272 INTRODUCTION TO PSYCHOLOGICAL ASSESSMENT 3 Credit Hours

(Slashed with PSYC 70272) Introduction to psychological assessment as a process for solving important clinical problems. Theoretical methodological and research issues are emphasized. Students become familiar with major psychological tests.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60273 ADVANCED PSYCHOLOGICAL ASSESSMENT 3 Credit Hours

(Slashed with PSYC 70273) Examines psychodiagnosis within a context of "personality-as-a-coherent-whole." Emphasizes an ideographic approach with a theoretical framework, which organizes and gives meaning to observations.

Prerequisite: PSYC 60272; and clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60274 ADVANCED PSYCHOLOGICAL ASSESSMENT: CHILD 3 Credit Hours

(Slashed with PSYC 70274) Interviewing, developmental and intellectual assessments, personality evaluations, behavioral assessments and assessment of special-child populations. Emphasis on the rationale and integration of research relevant to appropriate use and interpretation.

Prerequisite: PSYC 60272 and PSYC 60292; and clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60276 NEUROPSYCHOLOGICAL ASSESSMENT 3 Credit Hours

(Slashed with PSYC 70276) Introduction to the conceptual foundations of neuropsychological assessment and practical knowledge in assessment procedures, methods of interpretation and differential diagnosis.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60292 PSYCHOLOGICAL ASSESSMENT PRACTICUM 1-3 Credit Hours

(Repeatable for credit) Applied aspects of material presented in PSYC 60272. Emphasis on administering, scoring and interpreting major assessment tools.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Corequisite: PSYC 60272.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 60324 PROFESSIONAL ISSUES AND ETHICS IN CLINICAL PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 70324) Review of professional concerns in the field, including training, ethics, client rights, economics, legal issues, relationship to other professions and professional organization and policy.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60371 INTRODUCTION TO PSYCHOLOGICAL THERAPY 3 Credit Hours

(Slashed with PSYC 70371) Introduction to psychotherapy, with special emphasis on psychodynamic and phenomenological approaches with theory, technique and major research findings considered.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60375 COGNITIVE BEHAVIOR THERAPY 3 Credit Hours

(Slashed with PSYC 70375) Empirical and clinical aspects of cognitive and behavioral interventions. Intended for students familiar with basic psychotherapy assessment and psychopathology issues.

Prerequisite: PSYC 60371 and PSYC 60292; and clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60376 CHILD PSYCHOTHERAPY 3 Credit Hours

(Slashed with PSYC 70376) Consideration of various aspects of child psychotherapy, including general issues, traditional therapies, behavior and cognitive behavior therapies and child therapy research. Emphasis on integration of theory, technique and research.

Prerequisite: PSYC 60371; and clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60395 ADVANCED TOPICS IN CLINICAL PSYCHOLOGY 1-4 Credit Hours

(Slashed with PSYC 70395)(Repeatable for credit) Advanced-level consideration of selected content areas in assessment, psychotherapy psycho pathology professional issues and community psychology. Specific topic varies per course offering.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

PSYC 60453 INTRODUCTION TO COGNITIVE PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 70453) Information-processing approaches to human thought. Focus on processes used to transform store manipulate and retrieve sensory input. Topics include attention pattern recognition memory and language.

Prerequisite: Clinical Psychology or Psychological Science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 60592 PRACTICUM IN DIAGNOSTIC INTERVIEWING 1-3 Credit Hours

(Repeatable for credit) Covers skills clinical psychologists must possess to help clients, effectively work within the field, communicate effectively with peers and colleagues and excel as a clinical researcher. Provides a foundation of skills, knowledge and expertise necessary to competently conduct a diagnostic interview, and provides an introduction to the process of conceptualize a client's presenting problem(s).

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

PSYC 60792 PSYCHOTHERAPY PRACTICUM 1-3 Credit Hours

(Repeatable for credit) Basic training in applied aspects of psychotherapy. Through didactic and experiential methods, students learn basic listening and communication skills that are then applied to specific techniques, situations and issues.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Corequisite: PSYC 60371.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 60895 ADVANCED TOPICS IN EXPERIMENTAL PSYCHOLOGY 1-6 Credit Hours

(Repeatable for credit)(Slashed with PSYC 70895) Advanced-level consideration of selected content areas in experimental psychology. Specific topic varies per course offering.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-6 lecture

Grade Mode: Standard Letter

PSYC 61054 LEARNING AND CONDITIONING 3 Credit Hours

(Slashed with PSYC 71054) Introduction to basic conditioning processes. Emphasis on Pavlovian and instrumental learning phenomena particularly as these are exemplified in animal models of behavior.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 61199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 6 to 18 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 61299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: PSYC 61199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 61498 RESEARCH 1-6 Credit Hours

(Repeatable for credit) Research or individual investigation. Credits may be applied toward meeting degree requirements with department approval and when satisfactory grade is given.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 61548 PSYCHOLOGY OF GENDER AND MINORITIES 3 Credit Hours

(Slashed with PSYC 71548) Neurophysiological, neurochemical and neuroanatomical factors in the control of cognitive processes motivation and behavior. Emphasis is on the broad coverage of major topics in the field.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 61580 SOCIAL PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 71580) Introduction to empirical research and theories on the psychological processes related to interpersonal and small group behavior.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 61651 QUANTITATIVE STATISTICAL ANALYSIS I 3 Credit Hours

(Slashed with PSYC 71651) Review of univariate statistics and an introduction to using bivariate and multivariate statistics. Part one of a two-semester sequence on statistical analysis.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 61654 QUANTITATIVE STATISTICAL ANALYSIS II 3 Credit Hours

(Slashed with PSYC 71654) Multivariate statistics for classifying individuals and variables. Additional topics include power/effect size and handling missing data. Part two of a two-semester sequence on statistical analysis.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 61685 CLINICAL RESEARCH METHODS 3 Credit Hours

(Slashed with PSYC 71685) Consideration of research methodologies relevant to clinical psychology, with emphasis on strengths and weaknesses of research designs and issues related to collection and evaluation of data.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 61993 VARIABLE TITLE WORKSHOP IN PSYCHOLOGY 1-6 Credit Hours

(Repeatable for credit) Workshop topic varies per course offering.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

PSYC 62392 CLINICAL PRACTICUM 1-3 Credit Hours

(Repeatable for credit) Beginning practicum in psychological clinic involving selection, administration and evaluation of tests of ability and personality.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 62492 CLINICAL SUPERVISION AND CONSULTATION 1-3 Credit Hours

(Repeatable for credit) (Slashed with PSYC 72492) Intensified experience in the diagnosis and treatment of specific disorders from the scientist-practitioner model.

Prerequisite: PSYC 60192 and PSYC 60292 and PSYC 60792; and clinical psychology or psychological science major; and graduate standing.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory

PSYC 62685 RESEARCH METHODS IN PSYCHOLOGICAL SCIENCE 3 Credit Hours

(Slashed with PSYC 72685) Course fosters the development of graduate students as independent researchers by helping them acquire knowledge of and facility with quantitative research methods in psychology. The course covers a range of topics that are essential for successful research in psychology, including formulating research questions, measurement, research design, sampling, ethics, writing, replication and validity.

Prerequisite: Clinical psychology or psychological science major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70105 DEVELOPMENTAL PSYCHOPATHOLOGY 3 Credit Hours

(Slashed with PSYC 60105) Nature and theoretical explanations of various forms of psychopathology in children and adults. Students learn about the methods used to research psychopathology and understand contemporary controversies in the study of developmental psychopathology.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70192 INTEGRATION PRACTICUM 1-3 Credit Hours

(Repeatable for credit) Integration of assessment, psychopathology and psychotherapy coursework. Emphasis on learning how to conceptualize cases in general and from differing theoretical perspectives.

Prerequisite: PSYC 70292 and PSYC 70792; and clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 70272 INTRODUCTION TO PSYCHOLOGICAL ASSESSMENT 3 Credit Hours

(Slashed with PSYC 60272) Introduction to psychological assessment as a process for solving important clinical problems. Theoretical, methodological and research issues are emphasized. Students become familiar with major psychological tests.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70273 ADVANCED PSYCHOLOGICAL ASSESSMENT 3 Credit Hours

(Slashed with PSYC 60273) Examines psychodiagnosis within a context of "personality-as-a-coherent-whole." Emphasizes an ideographic approach with a theoretical framework, which organizes and gives meaning to observations.

Prerequisite: PSYC 70272; and clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70274 ADVANCED PSYCHOLOGICAL ASSESSMENT: CHILD 3 Credit Hours

(Slashed with PSYC 60274) Interviewing, developmental and intellectual assessments, personality evaluations, behavioral assessments and assessment of special-child populations. Emphasis on the rationale and integration of research relevant to appropriate use and interpretation.

Prerequisite: PSYC 70272 and PSYC 70292; and clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70276 NEUROPSYCHOLOGICAL ASSESSMENT 3 Credit Hours

(Slashed with PSYC 60276) Introduction to the conceptual foundations of neuropsychological assessment and practical knowledge in assessment procedures, methods of interpretation and differential diagnosis.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70292 PSYCHOLOGICAL ASSESSMENT PRACTICUM 1-3 Credit Hours

(Repeatable for credit) Applied aspects of material presented in PSYC 70272. Emphasis on administering, scoring and interpreting major assessment tools.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Corequisite: PSYC 70272.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 70324 PROFESSIONAL ISSUES AND ETHICS IN CLINICAL PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 60324) Review of professional concerns in the field, including training, ethics, client rights, economics, legal issues, relationship to other professions and professional organization and policy.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70371 INTRODUCTION TO PSYCHOLOGICAL THERAPY 3 Credit Hours

(Slashed with PSYC 60371) Introduction to psychotherapy, with special emphasis on psychodynamic and phenomenological approaches with theory, technique and major research findings considered.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70375 COGNITIVE BEHAVIOR THERAPY 3 Credit Hours

(Slashed with PSYC 60375) Empirical and clinical aspects of cognitive and behavioral interventions. Intended for students familiar with basic psychotherapy assessment and psychopathology issues.

Prerequisite: PSYC 70371 and PSYC 70292; and clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70376 CHILD PSYCHOTHERAPY 3 Credit Hours

(Slashed with PSYC 60376) Consideration of various aspects of child psychotherapy, including general issues, traditional therapies, behavior and cognitive behavior therapies and child therapy research. Emphasis on integration of theory technique and research.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70382 PEDIATRIC PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 40382 and PSYC 50382) Survey of the current topics and research for the field of pediatric (or child health) psychology. Includes a general overview of a number of pediatric psychology topics, including opportunities for more focused study of specific conditions and illnesses. Class sessions cover a mix of general issues (e.g., systems, adherence, diversity, stress and coping), descriptions of clinical roles for pediatric psychology (e.g., consultation liaison, multidisciplinary teams) and specific pediatric conditions with a focus on understanding the role of pediatric psychology.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70392 SUPERVISED CLINICAL EXPERIENCE 1-3 Credit Hours

(Repeatable for credit) Post-practicum, psychological service provision and/or research activities in institution or agency under supervision of licensed psychologist and by arrangement of department of psychology.

Prerequisite: PSYC 72392; and doctoral standing; and special approval.

Schedule Type: Field Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 70395 ADVANCED TOPICS IN CLINICAL PSYCHOLOGY 1-4 Credit Hours

(Repeatable for credit)(Slashed with PSYC 60395) Advanced-level consideration of selected content areas in assessment, psychotherapy, psychopathology, professional issues and community psychology. Specific topic varies per course offering.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

PSYC 70413 COGNITIVE NEUROPSYCHOLOGY 3 Credit Hours

The effect of brain injury and anomalous neurological development on cognitive skills such as language, perception and memory are explored.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70453 INTRODUCTION TO COGNITIVE PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 60453) Information-processing approaches to human thought. Focus on processes used to transform, store, manipulate and retrieve sensory input. Topics include attention, pattern recognition, memory and language.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70592 PRACTICUM IN DIAGNOSTIC INTERVIEWING 1-3 Credit Hours

(Repeatable for credit) Covers skills clinical psychologists must possess to help clients, effectively work within the field, communicate effectively with peers and colleagues and excel as a clinical researcher. Provides a foundation of skills, knowledge and expertise necessary to competently conduct a diagnostic interview, and provides an introduction to the process of conceptualize a client's presenting problem(s).

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

PSYC 70604 COGNITIVE DEVELOPMENT 3 Credit Hours

Examination of theories and research concerning changes in memory, perception, thought and language over the life span.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70615 SOCIAL AND PERSONALITY DEVELOPMENT 3 Credit Hours

Examination of theories and research in social development, with a focus on how personal relationships influence personality development.

Prerequisite: Clinical psychology or psychological Science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 70792 PSYCHOTHERAPY PRACTICUM 1-3 Credit Hours

(Repeatable for credit) Basic training in applied aspects of psychotherapy. Through didactic and experiential methods, students learn basic listening and communication skills that are then applied to specific techniques situations and issues.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 70895 ADVANCED TOPICS IN EXPERIMENTAL PSYCHOLOGY 1-6 Credit Hours

(Repeatable for credit)(Slashed with PSYC 60895) Advanced-level consideration of selected content areas in experimental psychology. Specific topic varies per course offering.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-6 lecture

Grade Mode: Standard Letter

PSYC 71054 LEARNING AND CONDITIONING 3 Credit Hours

(Slashed with PSYC 61054) Introduction to basic conditioning processes. Emphasis on Pavlovian and instrumental learning phenomena, particularly as these are exemplified in animal models of behavior.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71350 BIOLOGICAL ASPECTS OF PSYCHOLOGY 3 Credit Hours

Neurophysiological, neurochemical and neuroanatomical factors in the control of cognitive processes motivation and behavior. Emphasis is on the broad coverage of major topics in the field.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71395 SPECIAL TOPICS IN CHILD PSYCHOLOGY 3 Credit Hours

(Repeatable for credit)(Slashed with PSYC 41395 and PSYC 51395) In-depth examination of particular topics of current interest to faculty and students. Specialized areas of child psychology. Specific topic varies per course offering.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71548 PSYCHOLOGY OF GENDER AND MINORITIES 3 Credit Hours

(Slashed with PSYC 61548) Neurophysiological, neurochemical and neuroanatomical factors in the control of cognitive processes motivation and behavior. Emphasis is on the broad coverage of major topics in the field.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71580 SOCIAL PSYCHOLOGY 3 Credit Hours

(Slashed with PSYC 61580) Introduction to empirical research and theories on the psychological processes related to interpersonal and small group behavior.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71595 SPECIAL TOPICS IN COUNSELING CAREERS 3 Credit Hours

(Repeatable for credit)(Slashed with PSYC 41595 and PSYC 51595) In-depth examination of particular topics of current interest to faculty and students. Specialized areas of psychology related to counseling careers. Topic varies per course offering.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71651 QUANTITATIVE STATISTICAL ANALYSIS I 3 Credit Hours

(Slashed with PSYC 61651) Review of univariate statistics and an introduction to using bivariate and multivariate statistics. Part one of a two-semester sequence on statistical analysis.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71654 QUANTITATIVE STATISTICAL ANALYSIS II 3 Credit Hours

(Slashed with PSYC 61654) Multivariate statistics for classifying individuals and variables. Additional topics include power/effect size and handling missing data. Part two of a two-semester sequence on statistical analysis.

Prerequisite: PSYC 71651; and clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71685 CLINICAL RESEARCH METHODS 3 Credit Hours

(Slashed with PSYC 61685) Consideration of research methodologies relevant to clinical psychology, with emphasis on strengths and weaknesses of research designs and issues related to collection and evaluation of data.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 71894 COLLEGE TEACHING OF PSYCHOLOGY 3 Credit Hours

(Repeatable for credit) Training and experience in college teaching.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Satisfactory/Unsatisfactory

PSYC 71993 VARIABLE TITLE WORKSHOP IN PSYCHOLOGY 1-6 Credit Hours

(Repeatable for credit) Workshop topic varies per course offering.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

PSYC 72392 CLINICAL PRACTICUM 1-3 Credit Hours

(Repeatable for credit)(Slashed with PSYC 62392) Beginning practicum in psychological clinic involving selection, administration and evaluation of tests of ability and personality.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 72492 CLINICAL SUPERVISION AND CONSULTATION 1-3 Credit Hours

(Repeatable for credit) (Slashed with PSYC 62492) Intensified experience in the diagnosis and treatment of specific disorders from the scientist-practitioner model.

Prerequisite: PSYC 70192 and PSYC 70292 and PSYC 70792; and clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Satisfactory/Unsatisfactory

PSYC 72685 RESEARCH METHODS IN PSYCHOLOGICAL SCIENCE 3 Credit Hours

(Slashed with PSYC 62685) Course fosters the development of graduate students as independent researchers by helping them acquire knowledge of and facility with quantitative research methods in psychology. The course covers a range of topics that are essential for successful research in psychology, including formulating research questions, measurement, research design, sampling, ethics, writing, replication and validity.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 73001 CLINICAL NEUROANATOMY 3 Credit Hours

(Slashed with PSYC 43001 and PSYC 53001) Course examines the anatomical organization of the human brain, emphasizing functional aspects of various neural systems, neuroimaging and topics of clinical relevance. Students must have a conceptual understanding of central nervous system organization and memorization of specific neural structures and pathways, as well as knowledge of the impact of structure and systems dysfunction.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 77387 NEUROPSYCHOPHARMACOLOGY 3 Credit Hours

(Slashed with PSYC 47387 and PSYC 57387) Neuropsychopharmacology is the study of how drugs and other chemicals affect brain and behavior. Course introduces students to the behavioral effects of psychoactive/therapeutic drugs and neurotoxic chemicals in relation to their neural and molecular mechanisms of action. Covers general principles of neuropsychopharmacology; nervous system structure in relation to behavior and mind, brain and behavioral systems that are affected by different classes of drugs and toxic chemicals; and methods employed in neuropsychopharmacology research.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 80391 SEMINAR IN CLINICAL PSYCHOLOGY 3 Credit Hours

(Repeatable for credit) Seminar devoted to detailed study of various topics in field of clinical psychology. Specific topic varies per course offering.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PSYC 80491 SEMINAR IN COGNITIVE PSYCHOLOGY 3 Credit Hours

(Repeatable for credit) Seminar on current research in cognitive psychology. Specific topics will be announced in schedule of classes.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PSYC 80501 PSYCHOMETRIC THEORY AND MEASUREMENT 3 Credit Hours

This course is designed to provide an in-depth introduction to basic elements of psychometric theory. This includes topics of scaling (for stimuli and persons), (b) classical test theory and its approach to test reliability, (c) generalizability theory and its approach to test reliability, (d) principles and procedures for investigating test validity, (e) statistical issues of using tests for selection and classification (including diagnosis), (f) approaches to item analysis including item response theory, and (g) approaches to test construction.

Prerequisite: PSYC 71651 and PSYC 71654; and doctorate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 80502 STRUCTURAL EQUATION MODELING 3 Credit Hours

This course is designed to provide an in-depth introduction to the statistical technique of structural equation modeling (SEM). The course starts with an overview of the goals of SEM, basic terminology and conceptual issues, and basic requirements for conducting this type of analysis. Core analytic techniques (path analysis, confirmatory factor analysis, and latent variable modeling) will be discussed and conducted, and more advanced analysis techniques will also be briefly introduced. The course also involves learning the use of the statistical software MPlus.

Prerequisite: PSYC 71651 and PSYC 71654; and doctorate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 80503 LINEAR MIXED EFFECTS MODELING 3 Credit Hours

This course is an upper-level graduate seminar intended to introduce students to the use of Hierarchical (Multilevel) Linear Models in psychological research. This class will focus on developing a thorough conceptual understanding and the ability to implement this knowledge by conducting analyses. This includes such topics as the analysis of persons nested within groups, as well as the analysis of repeated measures within persons which itself includes analysis of Ecological Momentary Assessment data and growth analyses.

Prerequisite: PSYC 61651 or PSYC 71651; and PSYC 61654 or PSYC 71654; and doctorate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PSYC 81091 SEMINAR IN LEARNING AND BIOPSYCHOLOGY 3 Credit Hours

(Repeatable for credit) Seminar on current research in learning and biopsychology. Specific topic varies per course offering.

Prerequisite: Clinical psychology or psychological science major; and doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PSYC 81199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required the first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 81299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: PSYC 81199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 81498 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students. Credits may be applied toward degree with department approval.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 81591 SEMINAR IN PERSONALITY AND SOCIAL PSYCHOLOGY 3 Credit Hours

(Repeatable for credit) Seminar on current research in areas of social psychology. Specific topics will be announced in schedule of classes.

Prerequisite: Doctoral standing in psychology.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PSYC 81691 SEMINAR IN QUANTITATIVE METHODS 3 Credit Hours

(Repeatable for credit) Seminar on applications of quantitative methods within various content areas of psychology. Specific topic varies per course offering.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Department of Sociology and Criminology

Criminology and Justice Studies (CRIM)

CRIM 12000 INTRODUCTION TO JUSTICE STUDIES 3 Credit Hours

Surveys the U.S. criminal justice system and its component institutions and processes, including overviews of policing, corrections, courts, and their inter-relations in the criminal justice system. An overview is also provided of the nature and measurement of crime, patterns of offending and victimization, and criminal justice responses to offending and victimization. Historical and emerging issues are introduced including a variety of insights related to effective, professional and ethical practices in criminal justice.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

CRIM 13000 CRIME AND TECHNOLOGY 3 Credit Hours

This course is designed to provide a comprehensive understanding of how technologies are shaping crime and justice. This course aims to focus on the broader societal impact of technologies in order to build knowledge and awareness. The course topics introduced touch on other academic disciplines such as philosophy, economics, criminal justice and sociology, weaving together the critical trends and the shifting technological revolution that is currently underway.

Prerequisite: CRIM 12000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 22100 BASIC INTERVIEWING 3 Credit Hours

Foundation of basic interviewing principles, including communication models, question format, distortions, topic control, inhibitors, facilitators, listening, types of interviews and practical exercises.

Prerequisite: CRIM 12000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 22200 INTERPERSONAL AND PROFESSIONAL SKILLS FOR PUBLIC SAFETY PROFESSIONALS 3 Credit Hours

Course prepares students with law enforcement-related verbal and written skills that are essential for bridging the communication gap and ensuring safety, success with cases and written reports and rapport with the citizens officers are sworn to protect. Officers encounter a variety of citizens daily from different cultures, backgrounds, socioeconomic statuses, abilities and crisis situations. This course prepares students to create a culture of mutual respect and build trust and relationships essential in de-escalating situations.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 22300 POLICE ROLE 3 Credit Hours

Systematic analysis of the police role. An examination of the related research with an emphasis on divergent perspective and development of conceptual models.

Prerequisite: CRIM 12000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

CRIM 22301 THE INVESTIGATIVE PROCESS 3 Credit Hours

An examination of established investigative processes, techniques employed in conducting a systematic investigation and legal implications.

Prerequisite: CRIM 12000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 26701 CORRECTIONS 3 Credit Hours

Course topics include history of corrections, punishment, community corrections, correctional institutions, correctional administration, issues in corrections, and future trends of corrections.

Prerequisite: CRIM 12000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

CRIM 26704 ISSUES IN LAW AND SOCIETY (KSS) 3 Credit Hours

General treatment of the legal system with special emphasis on its origin, structure and functional consequences on issues and problems in modern society.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, Transfer Module Social Sciences

CRIM 27095 SPECIAL TOPICS IN CRIMINOLOGY AND JUSTICE STUDIES 2,3 Credit Hours

(Repeatable for a maximum of 6 credit hours) Intensive analysis of issues significant and current in the field which are not covered in regular courses.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 2-3 lecture

Grade Mode: Standard Letter

CRIM 27311 VICTIMOLOGY 3 Credit Hours

Patterns of victim-offender relationship and process of victimization. Role of victims in criminal process. Problems of adjustment to victimization and issues in victim compensation.

Prerequisite: CRIM 12000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 30000 INTRODUCTION TO WHITE COLLAR CRIME 3 Credit Hours

This course is an introduction to white collar crime (WCC). It provides an overview of WCC and examines who the white collar offender is and how they differ from the traditional street crime offender. The course places special emphasis on opportunity perspective and the white collar offender. In addition, the course explores and discusses various types of WCC, such as financial crimes and corporate violence.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 32005 CAREER PATHWAYS IN SOCIOLOGY AND CRIMINOLOGY AND JUSTICE STUDIES 3 Credit Hours

(Cross-listed with SOC 32005) This course equips students with an understanding of the career pathways available after completing a major or minor in sociology or criminology and justice studies. Provides students with a broad overview of career paths in sociology and criminology and justice studies while also helping students identify opportunities for internships and research while at Kent State.

Prerequisite: CRIM 12000 or SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 32200 POLICE AND COMMUNITY 3 Credit Hours

An examination of the rights of individuals, citizen involvement, the police as members of the community, and the development implementation and evaluation of related programs.

Prerequisite: CRIM 12000 and CRIM 22300; and sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 32500 CRISIS INTERVENTION 3 Credit Hours

Crisis intervention situations in criminal justice are considered. The service role of criminal justice personnel, community resources and skill development are also considered.

Prerequisite: CRIM 12000; and CRIM 22300 or CRIM 27311; and sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 32762 DEVIANT BEHAVIOR 3 Credit Hours

(Cross-listed with SOC 32762) Overview of classical and contemporary theories and perspectives on the nature, causes and societal management of deviant behavior. Application of theories and perspectives to modern and historical social problems, methods of punishment and policy trends in social control.

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 33200 CRIMINAL LAW 3 Credit Hours

Developmental backgrounds and principles of criminal law; structure, functions of criminal law; rules of criminal liability and procedural requisites in criminal proof. Case analysis included.

Prerequisite: CRIM 12000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 33300 DEVELOPMENT OF JUSTICE IN AMERICA 3 Credit Hours

Course focuses on the evolution of the criminal justice process from its establishment in the United States to the present.

Prerequisite: CRIM 12000; and sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 33400 CRIME AND JUSTICE IN POPULAR CULTURE 3 Credit Hours

Crime and criminal justice as they are socially constructed and portrayed in popular culture including television, news and entertainment, popular film and other media of popular culture. Critical analysis of relations between popular culture, media institutions, crime and justice. Role of popular culture media in shaping public opinions about crime and justice, and in turn the relevance of public opinion for understanding criminal justice politics and policy.

Prerequisite: CRIM 12000; and sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 34200 CRIMINAL PROCEDURES AND EVIDENCE 3 Credit Hours

This course focuses on the use of evidence and the legal procedures followed in the processing of criminal cases. Case analysis and writing assignments required.

Prerequisite: CRIM 12000 or PLST 18000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 34311 YOUTH AND THE JUSTICE SYSTEM 3 Credit Hours

Analysis of situations involving the legal rights of children and youths, which demand intervention by justice institutions or service agencies.

Prerequisite: CRIM 12000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 34500 UNDERSTANDING CRIMINAL LAW THROUGH FICTION 3 Credit Hours

Exploration of legal concepts and their application as reflected in popular and literary fiction. Legal analysis of important issues involving criminal and civil law, criminal and civil procedures, evidence, courts and related legal topics. Application of legal issues and procedures to real life situations.

Prerequisite: CRIM 12000 and CRIM 26704; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 36702 CRIMINOLOGY 3 Credit Hours

Examines crime from the legal and social viewpoints including extent and patterns of criminal behavior. Special emphasis on theoretical explanations of criminal behavior and crime rates.

Prerequisite: CRIM 12000 or SOC 12050; and Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

Attributes: CTAG Criminal Justice, TAG Social and Behavioral Sciences

CRIM 36703 JUVENILE DELINQUENCY 3 Credit Hours

Social and personal factors in juvenile delinquency; operation of juvenile justice system; prevention and control of delinquency.

Prerequisite: CRIM 12000 and CRIM 36702.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 36800 LGBTQ POPULATIONS IN THE JUSTICE SYSTEM 3 Credit Hours

This course explores research on LGBTQ (lesbian, gay, bisexual, transgender, and queer) populations in the juvenile and criminal justice systems. Students will examine the role that sexual orientation, gender identity, and gender expression play in the juvenile and criminal justice system, with particular attention given to the experiences of LGBTQ people within these institutions. Drawing on sociological theories of sex and gender and queer criminology, the course will review historical trends in the treatment of LGBTQ people in the justice systems, circumstances facing LGBTQ populations (sexual assault, harassment, hate crimes, institutional discrimination), and policy developments and innovations.

Prerequisite: SOC 12050 or CRIM 12000; and sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 37091 SEMINAR IN CRITICAL ISSUES IN CRIMINOLOGY AND JUSTICE STUDIES 1-3 Credit Hours

(Repeatable for credit) Intense analysis of issues significant and current in the justice field which are not covered in regular courses.

Prerequisite: CRIM 12000; and sophomore standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

CRIM 37095 SPECIAL TOPICS IN CRIMINOLOGY AND JUSTICE STUDIES 3 Credit Hours

(Repeatable for a maximum of 6 credit hours) Intensive analysis of issues significant and current in the field which are not covered in regular courses. Repeatable for a total of 6 hours.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 37311 MINORITIES IN CRIME AND JUSTICE 3 Credit Hours

Focus on the role of social and ethnic minorities as victims, offenders and participants in the justice process.

Prerequisite: CRIM 12000 or SOC 12050; and Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

CRIM 37411 WOMEN IN CRIME AND JUSTICE 3 Credit Hours

Women as a significant group in crime and their role in the development and operation of the criminal justice system.

Prerequisite: CRIM 12000 or SOC 12050; and Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

CRIM 37511 IMMIGRATION: LAW, CRIME AND JUSTICE 3 Credit Hours

Covers issues of immigration related to law, crime, and justice. Students will be introduced to issues of international diversity through the consideration of issues of law, criminal justice, and social justice related to immigration. Topics to be covered include legal and illegal immigration, immigration law enforcement, immigrants as criminal offenders and as crime victims, police-community relations, immigrants in correctional or detention facilities, and immigration as a national security concern and controversy.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 42577 SOCIOLOGY OF FAMILY VIOLENCE 3 Credit Hours

(Cross-listed with SOC 42577)(Slashed with CRIM 52577 and SOC 52577) Sociological analysis of theories, research and social policy concerning family violence, child abuse and neglect, intimate partner abuse, elderly abuse, rape, sexual abuse of children.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 44400 JUSTICE ADMINISTRATION 3 Credit Hours

Identification of administrative and management functions, leadership management styles and supervision of personnel in justice organizations.

Prerequisite: CRIM 12000; and CRIM 22300 (or CRIM 26701); and CRIM 26704.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 45093 VARIABLE TITLE WORKSHOP IN CRIMINOLOGY AND JUSTICE STUDIES 1-6 Credit Hours

(Repeatable for credit) (Slashed with CRIM 55093)

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

CRIM 45096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for a maximum of 6 credit hours when topic varies) Involves an individual research project of considerable depth in a subject area not covered by regular course offerings. Prior consent of supervising faculty member is required.

Prerequisite: CRIM 12000 and 26704; and SOC 32210; and junior standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

CRIM 46200 CURRENT CONTROVERSIAL LEGAL ISSUES 3 Credit Hours

Focuses on reading, analyzing and discussing current criminal, evidentiary and procedural issues as set forth in recent and historical U.S. Supreme Court cases. Case analysis, discussion and writing assignments are required.

Prerequisite: CRIM 12000 or PLST 18000; and junior standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

CRIM 46701 CRIME, JUSTICE AND SUBSTANCE ABUSE 3 Credit Hours

(Slashed with CRIM 56701) Examination of the relationship between drug and alcohol abuse and criminal behavior. Efforts to regulate, control, prevent and treat chemical abuse offenders are considered.

Prerequisite: CRIM 12000 and CRIM 26704.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 46705 COMMUNITY CORRECTIONS 3 Credit Hours

(Slashed with CRIM 56705) This course is devoted to an examination of formal and informal approaches to correctional supervision and treatment through probation, parole and community residential treatment.

Prerequisite: CRIM 12000 and CRIM 26701.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 46707 CORRECTIONAL INSTITUTIONS 3 Credit Hours

A thorough examination of the correctional institution, including the structure and organization, personnel, inmate social world and examination of the issues in contemporary correctional institutions.

Prerequisite: CRIM 12000 and CRIM 26701.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 46708 TREATMENT METHODS 3 Credit Hours

(Slashed with CRIM 56708) Various methods of treatment are applied to corrections field. Focus is on specific techniques in community and institutional correctional settings. Direct observation utilized when possible.

Prerequisite: CRIM 12000 and 26701; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 46792 INTERNSHIP (ELR) 3-9 Credit Hours

(Repeatable for credit) Work experience under the direction of supervising faculty member in a private, federal, state or local justice agency/organization, law agency/organization.

Prerequisite: CRIM 12000; and minimum 2.000 overall GPA; and Criminology and Justice Studies major or minor; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9-27 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

CRIM 46798 RESEARCH IN CRIMINOLOGY AND JUSTICE STUDIES (ELR) 3-12 Credit Hours

(Repeatable for credit) Individual research under direct supervision of a faculty member to provide direct hands-on research experience working on faculty research projects. Prior consent of supervising faculty member is required. Only 6 hours of nontraditional coursework can count towards the major.

Prerequisite: CRIM 12000 and CRIM 26704; and SOC 32210; and special approval.

Schedule Type: Research

Contact Hours: 3-12 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

CRIM 46800 INTELLIGENCE AND NATIONAL SECURITY 3 Credit Hours

(Slashed with CRIM 56800) Addresses topics related to global security, including economic and industrial espionage, trade secret thefts, law and technology and cyber-crimes. Implications of industrial espionage and intellectual property theft for the global economy, national and international security, and the control and regulation of white collar crime. Foundational exploration of Intelligence and Counterintelligence (IC) as concepts, processes and careers.

Prerequisite: CRIM 12000; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 46801 HOMELAND SECURITY 3 Credit Hours

(Slashed with CRIM 56801) Explores the nexus between terrorism and homeland security as it relates to homeland security strategy, assessment, evaluation, preparation, responses, and recovery actions and mechanisms relating to terrorism and homeland security. There is a focus on the importance of coordination of various assessments, plans, strategies and implementation of plans of action involving local, county, state, federal and international responses pertaining to terrorism and homeland security.

Prerequisite: CRIM 12000; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 46802 TERRORISM AND COUNTERTERRORISM 3 Credit Hours
(Slashed with CRIM 56802) Examines the origins and evolution of modern terrorism, challenges posed by terrorist groups to states and to the international system, and strategies employed to confront and combat terrorism. Assesses a wide variety of terrorist organizations, and explores the psychological, socioeconomic, political, and religious causes of terrorist violence past and present. Also analyzes the strengths and weaknesses of various counterterrorism efforts.

Prerequisite: CRIM 12000; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 46803 INFORMATION AND CYBER SECURITY 3 Credit Hours

(Slashed with CRIM 56803) Vulnerabilities of computer networks and techniques for protecting networks and data are discussed. Basic elements of symmetric and asymmetric cryptography, secure e-commerce, involving secure transmission, authentication, digital signatures, digital certificates and Public Key Infrastructure (PKI) are presented. Provides students with an introduction to the field of information security risk assessment. Incorporates cases in risk analysis derived from actual state and law enforcement agencies or private firms.

Prerequisite: CRIM 12000; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 46904 ISSUES IN POLICE WORK 3 Credit Hours

(Slashed with CRIM 56904) Analysis of police practices and functions at the municipal, state and federal level. Examination of emerging trends and issues in policing. Review of changes in police department policies and research on problem-solving in policing.

Prerequisite: CRIM 12000 and CRIM 22300; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 47002 HUMAN SERVICE AGENCIES AND THE LAW 3 Credit Hours

(Slashed with CRIM 57002) An overview of the law as it pertains to human service agencies, as well as on the relationships between such agencies and the criminal and juvenile justice systems. Focused attention is given to agencies that closely connect with vulnerable populations (such as children and the poor) and those that work closely with policing and corrections (such as mental health agencies and halfway houses).

Prerequisite: CRIM 12000; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 47003 RESTORATIVE JUSTICE AND VICTIM ASSISTANCE 3 Credit Hours

(Slashed with CRIM 57003) An inquiry into the theories and research in restorative justice, as well as an assessment of victim assistance protocols and programs. Examines restorative justice and victim assistance initiatives that provide an alternative framework for dealing with crime that places victim needs in a primary position, while addressing legal concerns and interagency differences.

Prerequisite: CRIM 12000 and CRIM 27311; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 47004 LEGAL PERSPECTIVES AND RIGHTS IN VICTIMIZATION 3 Credit Hours

(Slashed with CRIM 57004) An analysis of the legal rights of victims of crime at state and federal levels as well as a review of how these laws relate to the treatment of victims within the criminal and juvenile justice systems, with particular focus on the courts and correctional institutions. Relevant legislative and Constitutional changes and challenges are also addressed.

Prerequisite: CRIM 12000 and CRIM 27311; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 47095 SPECIAL TOPICS IN CRIMINOLOGY AND JUSTICE STUDIES 3 Credit Hours

(Repeatable for credit) Intensive analysis of issues significant and current in the field which are not covered in regular courses.

Prerequisite: CRIM 12000 and 26704.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 47211 COURT FUNCTIONS 3 Credit Hours

Analysis of the structure, functions and critical role of incumbents in the criminal court.

Prerequisite: CRIM 12000 and 26704.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 47311 COMPARATIVE JUSTICE SYSTEMS 3 Credit Hours

A systematic comparison of the developmental backgrounds, structure and functioning of the major systems of justice in the modern world.

Prerequisite: CRIM 12000 and CRIM 26704.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 52577 SOCIOLOGY OF FAMILY VIOLENCE 3 Credit Hours

(Cross-listed with SOC 52577)(Slashed with CRIM 42577 and SOC 42577) Sociological analysis of theories, research and social policy concerning family violence, child abuse and neglect, intimate partner abuse, elderly abuse, rape, sexual abuse of children.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 55093 VARIABLE TITLE WORKSHOP IN CRIMINOLOGY AND JUSTICE STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with CRIM 45093) Classroom presentations and field study focused on professional and disciplinary concerns. Specific content varies with workshop topic.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

CRIM 56701 CRIME, JUSTICE AND SUBSTANCE ABUSE 3 Credit Hours

(Slashed with CRIM 46701) Examination of the relationship between drug and alcohol abuse and criminal behavior. Efforts to regulate, control, prevent and treat chemical abuse offenders are considered.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 56705 COMMUNITY CORRECTIONS 3 Credit Hours

(Slashed with CRIM 46705) Study of community-based correctional supervision and treatment, examining probation, parole, and related residential programs. Topics covered include the history and organization of, and best practices in, community corrections.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 56708 TREATMENT METHODS 3 Credit Hours

(Slashed with CRIM 46708) Addresses institutional- and community-based treatment of offenders. Coverage includes the theoretical foundations of treatment and common intervention strategies, including evidence-based practices.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 56709 EMERGING TRENDS AND ISSUES IN CORRECTIONS 3 Credit Hours

Explores recent developments pertinent to the field of corrections, including sentencing trends, innovative practices, and legal developments. Analysis of emerging strategies for offender treatment, re-entry, and institutional and community safety.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 56800 INTELLIGENCE AND NATIONAL SECURITY 3 Credit Hours

(Slashed with CRIM 46800) Addresses topics related to global security, including economic and industrial espionage, trade secret thefts, law and technology and cyber-crimes. Implications of industrial espionage and intellectual property theft for the global economy, national and international security, and the control and regulation of white collar crime. Foundational exploration of Intelligence and Counterintelligence (IC) as concepts, processes and careers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 56801 HOMELAND SECURITY 3 Credit Hours

(Slashed with CRIM 46801) Explores the nexus between terrorism and homeland security as it relates to homeland security strategy, assessment, evaluation, preparation, responses, and recovery actions and mechanisms relating to terrorism and homeland security. There is a focus on the importance of coordination of various assessments, plans, strategies and implementation of plans of action involving local, county, state, federal and international responses pertaining to terrorism and homeland security.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 56802 TERRORISM AND COUNTERTERRORISM 3 Credit Hours

(Slashed with CRIM 46802) Examines the origins and evolution of modern terrorism, challenges posed by terrorist groups to states and to the international system, and strategies employed to confront and combat terrorism. Assesses a wide variety of terrorist organizations, and explores the psychological, socioeconomic, political, and religious causes of terrorist violence past and present. Also analyzes the strengths and weaknesses of various counterterrorism efforts.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 56803 INFORMATION AND CYBER SECURITY 3 Credit Hours

(Slashed with CRIM 46803) Vulnerabilities of computer networks and techniques for protecting networks and data are discussed. Basic elements of symmetric and asymmetric cryptography, secure e-commerce, involving secure transmission, authentication, digital signatures, digital certificates and Public Key Infrastructure (PKI) are presented. Provides students with an introduction to the field of information security risk assessment. Incorporates cases in risk analysis derived from actual state and law enforcement agencies or private firms.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 56904 ISSUES IN POLICE WORK 3 Credit Hours

(Slashed with CRIM 46904) Analysis of police practices and functions at the municipal, state and federal level. Examination of emerging trends and issues in policing. Review of changes in police department policies and research on problem-solving in policing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 57002 HUMAN SERVICE AGENCIES AND THE LAW 3 Credit Hours

(Slashed with CRIM 47002) An overview of the law as it pertains to human service agencies, as well as on the relationships between such agencies and the criminal and juvenile justice systems. Focused attention is given to agencies that closely connect with vulnerable populations (such as children and the poor) and those that work closely with policing and corrections (such as mental health agencies and halfway houses).

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 57003 RESTORATIVE JUSTICE AND VICTIM ASSISTANCE 3 Credit Hours

(Slashed with CRIM 47003) An inquiry into the theories and research in restorative justice, as well as an assessment of victim assistance protocols and programs. Examines restorative justice and victim assistance initiatives that provide an alternative framework for dealing with crime that places victim needs in a primary position, while addressing legal concerns and interagency differences.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 57004 LEGAL PERSPECTIVES AND RIGHTS IN VICTIMIZATION 3 Credit Hours

(Slashed with CRIM 47004) An analysis of the legal rights of victims of crime at state and federal levels as well as a review of how these laws relate to the treatment of victims within the criminal and juvenile justice systems, with particular focus on the courts and correctional institutions. Relevant legislative and Constitutional changes and challenges are also addressed.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 57095 SPECIAL TOPICS IN CRIMINOLOGY AND JUSTICE STUDIES 1-3 Credit Hours

(Repeatable for credit) Intensive analysis of issues significant and current in the field which are not covered in regular courses.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CRIM 66199 THESIS I 2-6 Credit Hours

(Repeatable for credit) Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CRIM 66299 THESIS II 2 Credit Hours

Thesis students must continue to register for each semester until all degree requirements are met.

Prerequisite: CRIM 66199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

CRIM 66761 LAW, JUSTICE AND SOCIETY 3 Credit Hours

Review of the origins, structure and functioning of law in relation to social context and process. Critical assessment of the use of law and legal institutions to address societal problems. Examination of the role that social inequality plays in crime and justice, nationally and internationally.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 66763 THEORIES OF CRIME AND DELINQUENCY 3 Credit Hours

Study of the nature and causes of criminal and delinquent behavior, with an emphasis on major contemporary criminological theories. Includes critical analysis of relevant research and policy implications.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 66766 INSTITUTIONAL CORRECTIONS 3 Credit Hours

Explores the historical development and theoretical foundations of the correctional institution, including jails and prisons, the structure of institutions and operational challenges. Incorporates overview of contemporary issues and the correctional institution as a social system.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 66767 JUSTICE ADMINISTRATION 3 Credit Hours

Introduces students to theories of organization and administration and their application to the administration of justice institutions. The course is divided into two sections: (1) theories of administration and organization and (2) application of theories to management of police functions. Includes use of theories to diagnose and reform justice institutions.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 66768 RESEARCH METHODS IN CRIMINOLOGY AND CRIMINAL JUSTICE 3 Credit Hours

Examines the methodology of research designs and techniques used in criminology and criminal justice. Provides students with an overview of the logic of research in order to critically evaluate research in the field. Focuses on the specific skills needed to conduct basic and evaluation research.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 66770 JUSTICE INSTITUTIONS 3 Credit Hours

Introduces students to the analysis of U.S. criminal justice institutions. Examines methods of institutional analysis, theories of administration, and the application of these theories to the understanding of police, courts and corrections.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 66772 VICTIMOLOGY 3 Credit Hours

Exploration of victimology, the scientific study of the physical, emotional, and financial harm people suffer because of criminal activities.

Examination of the impact of crime on victims, measuring crime through victimization, patterns of victim-offender relationships, and the role of the victim within the criminal and juvenile justice systems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 66773 CONTEMPORARY POLICING 3 Credit Hours

The fundamental question of this course is how to create the most effective police organization. This course examines the various theories and research on police service. Examines the nature of coercion in human interaction and the legitimate use of force by police. Study of the various philosophies and research on the Standard Model of policing, Community-Oriented Policing, and Problem-Oriented Policing. Reviews theories of police administration and the research corroborating or refuting the validity of those theories.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CRIM 66795 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Offered irregularly, this course provides opportunity to study special issues developments and programs in justice studies. Topics vary.

Prerequisite: Graduate standing and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CRIM 66796 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Intensive study of a subject which the student cannot normally pursue in a regularly scheduled course. Individual investigation topic must be approved by instructor and graduate coordinator.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter

CRIM 66899 PROSEMINAR CAPSTONE: ISSUES IN CONTEMPORARY JUSTICE 3 Credit Hours

Capstone experience. Students synthesize program knowledge about current issues and challenges faced by the U.S. justice system through the completion of an approved, written project that is analytical and research based.

Prerequisite: CRIM 66763 and CRIM 66768; and 15 additional credit hours of Criminology and Justice Studies (CRIM) graduate courses; and graduate standing.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Standard Letter

Sociology (SOC)**SOC 12050 INTRODUCTION TO SOCIOLOGY (KSS) 3 Credit Hours**

Scientific approach to understanding social interaction, institutions and organization.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

SOC 22570 UNDERSTANDING DIFFERENCES AND INEQUALITY 3 Credit Hours

An introduction to the cultural and structural factors creating and sustaining educational, economic and political inequality by race, ethnicity, gender, class and sexual orientation with an emphasis on issues of poverty and immigration.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

SOC 22778 SOCIAL PROBLEMS (KSS) 3 Credit Hours

Contemporary American and global social problems and issues are analyzed from sociological perspectives. Several cases are used to illustrate the emergence, development and decline of problems in social context.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

SOC 24011 INTERPERSONAL RELATIONSHIPS AND FAMILIES 3 Credit Hours

(Equivalent to HDF 24011) Exploration of the sociological nature of families across the lifespan, focusing on structure, diversity and life course processes such as dating, mate selection, cohabitation, marriage, parenthood, divorce, remarriage, singlehood, widowhood, parent-child interactions, sexual orientation, inequality and difference.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

SOC 31092 PRACTICUM IN SOCIOLOGY (ELR) 1-3 Credit Hours

(Repeatable for credit) Individual research experience in Sociology.

Prerequisite: SOC 32210; and junior standing.

Schedule Type: Practical Experience

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

SOC 32005 CAREER PATHWAYS IN SOCIOLOGY AND CRIMINOLOGY AND JUSTICE STUDIES 3 Credit Hours

(Cross-listed with CRIM 32005) This course equips students with an understanding of the career pathways available after completing a major or minor in sociology or criminology and justice studies. Provides students with a broad overview of career paths in sociology and criminology and justice studies while also helping students identify opportunities for internships and research while at Kent State.

Prerequisite: CRIM 12000 or SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 32096 INDIVIDUAL INVESTIGATION IN SOCIOLOGY 1-3 Credit Hours

(Repeatable for credit) Readings and/or research supervised by member of sociology faculty.

Prerequisite: SOC 12050; and junior standing; and special approval of instructor.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter

SOC 32210 RESEARCHING SOCIETY (ELR) (WIC) 3 Credit Hours

Survey of methods and techniques of research; research design and data gathering instruments; qualitative and quantitative analysis.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

SOC 32220 DATA ANALYSIS 3 Credit Hours

The use of quantitative methods in the analysis of data from social research. Emphasis on descriptive statistics.

Prerequisite: SOC 12050.

Corequisite: SOC 32221.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 32221 DATA ANALYSIS LABORATORY 1 Credit Hour

Analysis of sociological data utilizing statistical and electronic data processing tools.

Corequisite: SOC 32220.

Schedule Type: Laboratory

Contact Hours: 3 lab

Grade Mode: Standard Letter

SOC 32400 INDIVIDUAL AND SOCIETY 3 Credit Hours

Foundations of social psychology; process of socialization; development of social and personal identities; small group and collective behavior; theories of deviance.

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 32510 JOBS, WORK AND INEQUALITY 3 Credit Hours

This course examines trends in the sociological relationships between jobs/occupations, work, the global economy and inequality. Specifically, the course focuses on relationships between work and power, job (in)security, resources, mobility and quality of life. Additionally, it examines how work is affected by social structure and social change; how individuals and groups end up in certain jobs/occupations; and future trends (e.g., gig work, labor unions, low wage work, demands for flexibility, remote work).

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 32560 SOCIOLOGY OF FAMILIES 3 Credit Hours

Social history of the American family. Examination of how race, ethnicity, sexual orientation, class, gender and age contribute to variation in the experience and structure of family life in the U.S.

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 32565 SOCIOLOGY OF SEXUALITIES 3 Credit Hours

Examination of the social production, meaning, and consequences of identities, practices, and inequalities related to sexualities, gender identity and gender expression.

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 32569 MINORITIES IN THE UNITED STATES 3 Credit Hours

Considers the nature and significance of minority groups and majority minority relations in the United States. Reviews experiences of racial and ethnic minorities, religious minorities, women, sexual minorities, the elderly and differently abled Americans.

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Social and Behavioral Sciences

SOC 32570 INEQUALITY IN SOCIETIES 3 Credit Hours

Sociological analysis of stratification and inequality in societies, and the social structures that produce and maintain them. Particular emphasis on the intersections of race, class and gender in American society.

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 32673 CITIES AND URBAN SOCIAL LIFE 3 Credit Hours

This course covers the history and development of urban areas over time (urbanization), paying attention to sociological theories of power and stratification. In addition, the class examines how sociological theories of culture and social interaction help to explain why people behave the way they do in different urban environments (urbanism). Finally, the course examines how different social, racial and cultural groups live their lives in the city, including urban poverty, immigration into and out of urban areas, race relations, the city as a center of the arts and various communities within the city (urban enclaves). Although the course emphasizes urban processes and lifestyles in the United States, we also spend some time on cities in Europe and countries like Mexico and discuss how they compare.

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 32762 DEVIANT BEHAVIOR 3 Credit Hours

(Cross-listed with CRIM 32762) Overview of classical and contemporary theories and perspectives on the nature, causes and societal management of deviant behavior. Application of theories and perspectives to modern and historical social problems, methods of punishment and policy trends in social control.

Prerequisite: SOC 12050.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42010 DEATH AND DYING 3 Credit Hours

(Slashed with SOC 52010) Theoretical perspectives and research in human death and dying. Emphasis on applied concerns in medical and helping professions. Topics include social death, death as taboo, medicalization and rationalization of death and dying and disenfranchised grief.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42092 INTERNSHIP IN SOCIOLOGY (ELR) 1-9 Credit Hours

(Repeatable for credit) Real world experience and the application of sociological knowledge in work or organizational settings. Assist professionals at sites such as, but not limited to, social services, hospitals, industry and government.

Prerequisite: Minimum 2.000 overall GPA; and Sociology major or minor; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-27 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

SOC 42093 VARIABLE TITLE WORKSHOP IN SOCIOLOGY 1-6 Credit Hours

(Repeatable for credit) Concentrates on professional or disciplinary concerns. Specific content to vary according to needs of client groups.

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

SOC 42095 SPECIAL TOPICS IN SOCIOLOGY 3 Credit Hours

(Repeatable for credit) Offered irregularly when unusual resources and/or opportunities permit. Topic announced when scheduled.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42126 SOCIOLOGICAL THEORIES 3 Credit Hours

(Slashed with SOC 52126) An examination of classical, modern and postmodern approaches to social theory.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42315 SOCIOLOGY OF GENDER 3 Credit Hours

(Slashed with SOC 52315) An examination of the institutions, institutional linkages and social processes that contribute to the construction and maintenance of gender and gender inequality.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42359 SOCIAL MOVEMENTS 3 Credit Hours

(Slashed with SOC 52359) Investigation of various movements for social change. Examines the origins, developmental characteristics and the purposes of classic and contemporary movements.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42400 SELF AND IDENTITY 3 Credit Hours

Examines theories and research on the origin and behavioral consequences of identities, self-concept and self-esteem; also examines the relationships between identities and emotions and between self-concept and mental health.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42421 CHILDHOOD IN SOCIETY 3 Credit Hours

(Slashed with SOC 52421) How socio-historical circumstances shape the perception and experience of childhood as a distinct life stage. The process of childhood socialization in Western societies particularly the United States. An exploration of the distinct role of socializing agents- parents and siblings, school, peers and media.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42478 ADOLESCENCE IN SOCIETY 3 Credit Hours

(Slashed with SOC 52478) Consideration of the social, cultural and historical forces that shape the experience of this period of the life cycle. Includes examination of gender, class and race differences in adolescence the significance of youth movements, with an emphasis on music as a dominant expression of youth culture.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42558 WEALTH, POVERTY AND POWER 3 Credit Hours

(Slashed with SOC 52558) Sociological examination of economic stratification; focuses on the translation of class into power via politics, education and collective struggle.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42560 SOCIOLOGY OF FOOD (ELR) 3 Credit Hours

(Slashed with SOC 52560) Food is essential, but like every other aspect of our lives, the meaning of food and experience of its preparation and consumption are socially determined. Course explores the social dimensions of food consumption and production. Students consider the following questions and answer them by developing an understanding of sociological concepts and theories: What do our meals reveal about us – our history, culture, gender and race and ethnicity, socioeconomic status, religious beliefs and family life? How does food consumption differ in different societies? How do the media and corporations influence our food choices? What does food symbolize and in what ways are these meanings manipulated and why? How is food production carried out in different contexts and what can we learn about the social organization of work from studying food production? How does what we eat contribute to local and global environmental problems? Students are encouraged to engage in community or classroom activities that require them to apply sociological food theories to examine how their own social location in the food system connects to the broader community.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

SOC 42561 SOCIOLOGY OF RELIGION 3 Credit Hours

(Slashed with SOC 52561) Social context of religious ideologies and structures with special reference to religion in America.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42562 SOCIOLOGY OF MENTAL ILLNESS 3 Credit Hours

A sociology of mental health and illness; focuses on how social factors influence and are influenced by mental health status; topics include definition and measurement, social distribution, social control of mental illness, societal reaction and media coverage.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42563 SOCIOLOGY OF HEALTH AND HEALTH CARE 3 Credit Hours

(Slashed with SOC 52563) Sociological analysis of health and illness behavior and utilization of health care professions, as well as the organizational, community and societal systems that deal with health and illness.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42565 ENVIRONMENTAL SOCIOLOGY (ELR) 3 Credit Hours

(Slashed with SOC 52565) This course provides students with an overview of how environmental problems and patterns interact with social systems. The course grounds students in an interdisciplinary range of theories through which environmental problems may be made more visible, and solutions more readily imagined. Topics include the intellectual and activist origins of the environmental justice movement; sustainability and economic development; climate change and population/immigration dynamics; the history of environmental regulatory frameworks and institutions at the local, regional and global level; and inequalities in the experience and consequence of environmental problems. Students are encouraged to pair the course with an internship or other volunteer opportunity with an area environmental, media or policy-making organization to encourage a public sociology orientation for student projects.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

SOC 42568 RACE AND ETHNIC STUDIES 3 Credit Hours

(Slashed with SOC 52568) Sociological principles underlying racial and ethnic relations in the United States; emphasis on social factors of prejudice, discrimination and assimilation affecting all groups.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42577 SOCIOLOGY OF FAMILY VIOLENCE 3 Credit Hours

(Cross-listed with CRIM 42577)(Slashed with CRIM 52577 and SOC 52577) Sociological analysis of theories, research and social policy concerning family violence, child abuse and neglect, intimate partner abuse, elderly abuse, rape, sexual abuse of children.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 42879 AGING IN SOCIETY 3 Credit Hours

(Slashed with SOC 52879) Analysis of demographic, sociological and socio-psychological dimensions of aging.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 43200 SOCIAL STRUCTURE AND INDIVIDUAL LIVES 3 Credit Hours

Examines conceptualizations for and evidence concerning the effects of social structure on various dimensions of individual lives.

Prerequisite: SOC 12050; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52010 DEATH AND DYING 3 Credit Hours

(Slashed with SOC 42010) Theoretical perspectives and research in human death and dying. Emphasis on applied concerns in medical and helping professions. Topics include social death, death as taboo, medicalization and rationalization of death and dying, and disenfranchised grief.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52126 SOCIOLOGICAL THEORIES 3 Credit Hours

(Slashed with SOC 42126) An examination of classical, modern and post-modern approaches to social theory.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52315 SOCIOLOGY OF GENDER 3 Credit Hours

(Slashed with SOC 42315) An examination of the institutions, institutional linkages and social processes that contribute to the construction and maintenance of gender and gender inequality.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52359 SOCIAL MOVEMENTS 3 Credit Hours

(Slashed with SOC 42359) Investigation of various movements for social change. Examines the origins, developmental characteristics and the purposes of classic and contemporary movements.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52421 CHILDHOOD IN SOCIETY 3 Credit Hours

(Slashed with SOC 42421) How socio-historical circumstances shape the perception and experience of childhood as a distinct life stage. The process of childhood socialization in Western societies particularly the United States. An exploration of the distinct role of socializing agents- parents and siblings, school, peers and media.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52478 ADOLESCENCE IN SOCIETY 3 Credit Hours

(Slashed with SOC 42478) Consideration of the social, cultural and historical forces that shape the experience of this period of the life cycle. Includes examination of gender, class and race differences in adolescence the significance of youth movements, with an emphasis on music as a dominant expression of youth culture.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52558 WEALTH, POVERTY AND POWER 3 Credit Hours

(Slashed with SOC 42558) Sociological examination of economic stratification in the United States; focuses on the translation of class into power via politics, education and collective struggle.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52560 SOCIOLOGY OF FOOD 3 Credit Hours

(Slashed with SOC 42560) Food is essential, but like every other aspect of our lives, the meaning of food and experience of its preparation and consumption are socially determined. Course explores the social dimensions of food consumption and production. Students consider the following questions and answer them by developing an understanding of sociological concepts and theories: What do our meals reveal about us – our history, culture, gender and race and ethnicity, socioeconomic status, religious beliefs and family life? How does food consumption differ in different societies? How do the media and corporations influence our food choices? What does food symbolize and in what ways are these meanings manipulated and why? How is food production carried out in different contexts and what can we learn about the social organization of work from studying food production? How does what we eat contribute to local and global environmental problems? Students are encouraged to engage in community or classroom activities that require them to apply sociological food theories to examine how their own social location in the food system connects to the broader community.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52561 SOCIOLOGY OF RELIGION 3 Credit Hours

(Slashed with SOC 42561) Social context of religions and their ideologies and structures with special reference to religion in America.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52563 SOCIOLOGY OF HEALTH AND HEALTH CARE 3 Credit Hours

(Slashed with SOC 42563) Sociological analysis of health and illness behavior and utilization of health care professions, as well as the organizational, community and societal systems that deal with health and illness.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52565 ENVIRONMENTAL SOCIOLOGY 3 Credit Hours

(Slashed with SOC 42565) This course provides students with an overview of how environmental problems and patterns interact with social systems. The course grounds students in an interdisciplinary range of theories through which environmental problems may be made more visible, and solutions more readily imagined. Topics include the intellectual and activist origins of the environmental justice movement; sustainability and economic development; climate change and population/immigration dynamics; the history of environmental regulatory frameworks and institutions at the local, regional and global level; and inequalities in the experience and consequence of environmental problems. Students are encouraged to pair the course with an internship or other volunteer opportunity with an area environmental, media or policy-making organization to encourage a public sociology orientation for student projects.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52568 RACE AND ETHNIC STUDIES 3 Credit Hours

(Slashed with SOC 42568) Sociological principles underlying racial and ethnic relations in the United States; emphasis on social factors of prejudice, discrimination and assimilation affecting all groups.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52577 SOCIOLOGY OF FAMILY VIOLENCE 3 Credit Hours

(Cross-listed with CRIM 52577)(Slashed with CRIM 42577 and SOC 42577) Sociological analysis of theories, research and social policy concerning family violence, child abuse and neglect, intimate partner abuse, elderly abuse, rape, sexual abuse of children.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 52879 AGING IN SOCIETY 3 Credit Hours

(Slashed with SOC 42879) Analysis of demographic, sociological and sociopsychological dimensions of aging.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 61003 CRIMINOLOGICAL THEORY 3 Credit Hours

(Slashed with SOC 71003) Examines the major theories in criminology that have been used to explain criminal behavior. This course includes analysis of empirical tests, applications of the theories, and social policy implications.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 61004 SOCIOLOGY OF CORRECTIONS 3 Credit Hours

(Slashed with SOC 71004) Analyzes the correctional institution as a social system: formal structure and informal dynamics. It covers problems and programs found in community corrections as well as the institutional setting. It examines approaches to correctional supervision and treatment through probation, parole, and community residential treatment.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 61005 JUVENILE DELINQUENCY 3 Credit Hours

(Slashed with SOC 71005) Provides an analysis of the issues and current research related to juvenile delinquency and the juvenile justice process.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62002 PROFESSIONAL AND ETHICAL ISSUES IN SOCIOLOGY 3 Credit Hours

(Slashed with SOC 72002) Introduction to professional and ethical issues in the field of sociology including the logic of inquiry, developing effective approaches to independent learning and research, the human subjects review process and plagiarism. Akron 3850:628.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62093 VARIABLE TITLE WORKSHOP IN SOCIOLOGY 1-6 Credit Hours

(Repeatable for credit)(Slashed with SOC 72093) Concentrates on professional or disciplinary concerns. Specific content to vary according to needs of client groups.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

SOC 62100 EARLY SOCIOLOGICAL THEORY 3 Credit Hours

(Slashed with SOC 72100) An examination of the contributions by pre-1930 social thinkers to contemporary sociological theory. Akron 3850:722.

Prerequisite: SOC 52126; and sociology major; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

SOC 62105 CONTEMPORARY SOCIOLOGICAL THOUGHT 3 Credit Hours

(Slashed with SOC 62105) Covers major contemporary theories and theorists. Emphasis on functionalism, conflict, exchange, interactionism and systems theory. Neofunctionalism, neo-Marxism, structuration theory and other recent trends are treated. Akron 3850:723.

Prerequisite: SOC 62100; and sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing in sociology; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

SOC 62211 QUANTITATIVE METHODS IN SOCIOLOGY 4 Credit Hours

Introduction to the use of quantitative research methods for analyzing sociological issues. Includes instruction on each step in the process of empirically verifying a theoretical question, from conceptualization to analysis. Akron 3850:603.

Prerequisite: Graduate standing in sociology.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

SOC 62217 MULTIVARIATE TECHNIQUES IN SOCIOLOGY 4 Credit Hours

(Slashed with SOC 72217) Advanced multivariate techniques and methodological problems in the analysis of sociological data. Topics include non-experimental causal models and path analysis. Akron 3850:706.

Prerequisite: SOC 32220; and sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

SOC 62218 ADVANCED DATA ANALYSIS 4 Credit Hours

(Slashed with SOC 72218) Critical examination of data analytic techniques having particular relevance to research problems in sociology, with particular emphasis on multi-variate inferential statistics. Akron 3850:709.

Prerequisite: SOC 62217; and sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

SOC 62219 QUALITATIVE METHODS IN SOCIOLOGY 4 Credit Hours

(Slashed with SOC 72219) Study of qualitative methods including interviewing, observation, use of personal documents, archival data and special problems of recording and analyzing qualitative data. Akron 3850:714.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

SOC 62221 ADVANCED QUALITATIVE METHODS IN SOCIOLOGY 3 Credit Hours

(Slashed with SOC 72221) Provides students with the opportunity to conceive, design and carry out their own qualitative research projects. Students also survey readings that are exemplars of high quality and rigorous qualitative research. Topics such as writing, analysis and ethics are covered as students develop and move forward on their own original research. Students must be actively engaged in a qualitative research project to enroll in the course.

Prerequisite: SOC 62219; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: SOC 62199; and graduate standing in sociology; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

SOC 62323 SOCIOLOGY OF HEALTH AND ILLNESS 3 Credit Hours

(Slashed with SOC 72323) Introduction to medical sociology. Topics include health care professions, patient-provider interaction, caregivers, the illness experience, race, ethnicity, gender, socio-economic status, and health and global health.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62326 SOCIOLOGY OF MENTAL HEALTH AND MENTAL ILLNESS 3 Credit Hours

(Slashed with SOC 72326) Sociological examination of the social processes that affect mental health, frame cultural ideas of normality and illness, and define clinical pathology. Akron 3850: 728.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62328 STRATIFICATION AND HEALTH 3 Credit Hours

(Slashed with SOC 72328) Race, social class and gender differences in physical and mental health status, help-seeking behavior and health care. Race, class and gender stratification of health care workers. Akron 3850:726.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62332 SOCIAL CONTROL OF MENTAL ILLNESS 3 Credit Hours

(Slashed with SOC 72332) Introduction to the sociological perspective regarding social control and mental illness. Topics include the history of mental illness and the asylum, the stratification of mental illness diagnosis and treatment by race, ethnicity, gender, and socio-economic status, and stigma and psychiatric labeling.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62430 SOCIAL PSYCHOLOGY 3 Credit Hours

(Slashed with SOC 72430) Examination of social psychological theory and research, both classic and contemporary. Provides student with background and working knowledge of social psychological aspects of social phenomena. Akron 3850: 631.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62437 STRUCTURAL SOCIAL PSYCHOLOGY 3 Credit Hours

(Slashed with SOC 72437) In-depth introduction to structural social psychology, a set of theoretical and methodological approaches and tools that focuses on the development and testing of multi-level, micro-macro accounts of human social interactions, often through the use of formal theorizing and mathematical modeling. Course provides an overview of the theoretical and research empirical methods that are most associated with structural social psychology; cover the main substantive topics in the area; and then conclude with a brief overview of current issues, debates and recent interdisciplinary advances.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62439 SELF AND IDENTITY 3 Credit Hours

(Slashed with SOC 72439) Examines theories and research on the origins of and on behavioral and social consequences of identities, self-concept and self-esteem; also examines the relationships between identities and emotions and between self-concept and mental health and well-being.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62546 SOCIAL INEQUALITY 3 Credit Hours

(Slashed with SOC 72546) An overview of social inequalities, including definitions, causes, identities, structures and consequences. The focus is on social class with attention to intersecting dimensions of inequality. Akron 3850:646.

Prerequisite: Sociology major; and Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62566 SOCIOLOGY OF GENDER 3 Credit Hours

(Slashed with SOC 72566) Examination of theories and research on gender origins, characteristics and changes. Emphasizes recent empirical research on gender role patterns and processes in various industrial societies. Akron 3850:639.

Prerequisite: Graduate standing; and sociology major.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62760 DEVIANCE 3 Credit Hours

(Slashed with SOC 72760) Examination of nature, types and controls of deviance; analysis of conceptual levels, theoretical contributions, processes in social labeling and self-labeling, case studies, social consequences and problems. Akron 3850: 663.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62870 SOCIOLOGY OF RACE AND ETHNICITY 3 Credit Hours

(Slashed with SOC 72870) An in-depth study of the theories, models, research approaches and substantive areas that constitute the sociology of race and ethnicity. Akron 3850:651.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62872 SOCIAL PSYCHOLOGY AND INEQUALITY 3 Credit Hours

(Slashed with SOC 72872) Introduces students to sociological social psychological work that examines the reproduction of inequality. Specifically, the course focuses on "generic social processes" in how individuals, through interaction, are complicit or resistant in the reproduction of inequality through processes such as identity work, collective identity work, emotion work, othering and boundary maintenance. Mechanisms for change are also considered.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62894 COLLEGE TEACHING OF SOCIOLOGY 3 Credit Hours

(Repeatable for credit)(Slashed with SOC 72894) Preparation for college teaching. Students may apply a maximum 3 credit hours applicable toward the master's degree with departmental approval. Akron 3850:700.

Prerequisite: Graduate standing; and sociology major.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

SOC 62895 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit)(Slashed with SOC 72895) Offered irregularly when unusual resources and/or opportunities permit. Topic will be announced when scheduled.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 62896 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit)(Slashed with SOC 72896) Intensive pursuit of a subject matter beyond normal course coverage with the possibility of associated research. Students may apply a maximum 6 credit hours combined in individual investigation (SOC 62896, SOC 72896) and research (SOC 62898, SOC 72898) toward the master's degree.

Prerequisite: Sociology major; and graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

SOC 62898 RESEARCH 1-3 Credit Hours

(Repeatable for credit)(Slashed with SOC 72898) Pursuit of research interests that can include the student's project and/or a faculty member's project. Student may apply a maximum of 6 credits combined of research (SOC 62898, SOC 72898) and individual investigation (SOC 62896, SOC 72896) toward the master's degree.

Prerequisite: Sociology major; and graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

SOC 71003 CRIMINOLOGICAL THEORY 3 Credit Hours

(Slashed with SOC 61003) Examines the major theories in criminology that have been used to explain criminal behavior. This course includes analysis of empirical tests, applications of the theories, and social policy implications.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 71004 SOCIOLOGY OF CORRECTIONS 3 Credit Hours

(Slashed with SOC 61004) Analyzes the correctional institution as a social system: formal structure and informal dynamics. It covers problems and programs found in community corrections as well as the institutional setting. It examines approaches to correctional supervision and treatment through probation, parole, and community residential treatment.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 71005 JUVENILE DELINQUENCY 3 Credit Hours

(Slashed with SOC 61005) Provides an analysis of the issues and current research related to juvenile delinquency and the juvenile justice process.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72002 PROFESSIONAL AND ETHICAL ISSUES IN SOCIOLOGY 3 Credit Hours

(Slashed with SOC 62002) Introduction to professional and ethical issues in the field of sociology including the logic of inquiry, developing effective approaches to independent learning and research, the human subjects review process and plagiarism. Akron 3850:628.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72093 VARIABLE TITLE WORKSHOP IN SOCIOLOGY 1-6 Credit Hours

(Repeatable for credit)(Slashed with SOC 62093) Concentrates on professional or disciplinary concerns. Specific content to vary according to needs of client groups.

Prerequisite: Doctoral standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

SOC 72100 EARLY SOCIOLOGICAL THEORY 3 Credit Hours

(Slashed with SOC 62100) An examination of the contributions by pre-1930 social thinkers to contemporary sociological theory. Akron 3850:722.

Prerequisite: SOC 52126; and sociology major; and doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

SOC 72105 CONTEMPORARY SOCIOLOGICAL THOUGHT 3 Credit Hours

(Slashed with SOC 62105) Covers major contemporary theories and theorists. Emphasis on functionalism, conflict, exchange, interactionism and systems theory. Neofunctionalism, neo-Marxism, structuration theory and other recent trends are treated. Akron 3850:723.

Prerequisite: SOC 72100; and sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72211 QUANTITATIVE METHODS IN SOCIOLOGY 4 Credit Hours

Introduction to the use of quantitative research methods for analyzing sociological issues. Includes instruction on each step in the process of empirically verifying a theoretical question, from conceptualization to analysis. Akron 3850:603.

Prerequisite: Doctoral standing in sociology.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

SOC 72217 MULTIVARIATE TECHNIQUES IN SOCIOLOGY 4 Credit Hours

(Slashed with SOC 62217) Advanced multivariate techniques and methodological problems in the analysis of sociological data. Topics include non-experimental causal models and path analysis. Akron 3850:706.

Prerequisite: SOC 32220; and sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

SOC 72218 ADVANCED DATA ANALYSIS 4 Credit Hours

(Slashed with SOC 62218) Crucial examination of data analytic techniques having particular relevance to research problems in sociology, with particular emphasis on multi-variate inferential statistics. Akron 3850:709.

Prerequisite: SOC 72217; and sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

SOC 72219 QUALITATIVE METHODS IN SOCIOLOGY 4 Credit Hours

(Slashed with SOC 62219) Study of qualitative methods including interviewing, observation, use of personal documents, archival data, and special problems of recording and analyzing qualitative data. Akron 3850:714.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

SOC 72221 ADVANCED QUALITATIVE METHODS IN SOCIOLOGY 3 Credit Hours

(Slashed with SOC 62221) Provides students with the opportunity to conceive, design and carry out their own qualitative research projects. Students also survey readings that are exemplars of high quality and rigorous qualitative research. Topics such as writing, analysis and ethics are covered as students develop and move forward on their own original research. Students must be actively engaged in a qualitative research project to enroll in the course.

Prerequisite: SOC 72219; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72323 SOCIOLOGY OF HEALTH AND ILLNESS 3 Credit Hours

(Slashed with SOC 62323) Introduction to medical sociology. Topics include health care professions, patient-provider interaction, caregivers, the illness experience, race, ethnicity, gender, socio-economic status and health and global health.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72326 SOCIOLOGY OF MENTAL HEALTH AND MENTAL ILLNESS 3 Credit Hours

(Slashed with SOC 62326) Sociological examination of the social processes that affect mental health, frame cultural ideas of normality and illness, and define clinical pathology. Akron 3850:728.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72328 STRATIFICATION AND HEALTH 3 Credit Hours

(Slashed with SOC 62328) Race, social, class and gender differences in physical and mental health status, help-seeking behavior and health care. Race, class and gender stratification of health care workers. Akron 3850:726.

Prerequisite: Sociology major; and doctoral major.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72332 SOCIAL CONTROL OF MENTAL ILLNESS 3 Credit Hours

(Slashed with SOC 62332) Introduction to the sociological perspective regarding social control and mental illness. Topics include the history of mental illness and the asylum, the stratification of mental illness diagnosis and treatment by race, ethnicity, gender, and socio-economic status, and stigma and psychiatric labeling.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72430 SOCIAL PSYCHOLOGY 3 Credit Hours

(Slashed with SOC 62430) Examination of social psychological theory and research, both classic and contemporary. Provides student with background and working knowledge of social psychological aspects of social phenomena. Akron 3850:631.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72437 STRUCTURAL SOCIAL PSYCHOLOGY 3 Credit Hours

(Slashed with SOC 62437) In-depth introduction to structural social psychology, a set of theoretical and methodological approaches and tools that focuses on the development and testing of multi-level, micro-macro accounts of human social interactions, often through the use of formal theorizing and mathematical modeling. Course provides an overview of the theoretical and research empirical methods that are most associated with structural social psychology; cover the main substantive topics in the area; and then conclude with a brief overview of current issues, debates and recent interdisciplinary advances.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72439 SELF AND IDENTITY 3 Credit Hours

(Slashed with SOC 62439) Examines theories and research on the origins of and on behavioral and social consequences of identities, self-concept and self-esteem; also examines the relationships between identities and emotions and between self-concept and mental health and well-being.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72546 SOCIAL INEQUALITY 3 Credit Hours

(Slashed with SOC 62546) An overview of social inequalities, including definitions, causes, identities, structures and consequences. The focus is on social class with attention to intersecting dimensions of inequality. Akron 3850:646.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72566 SOCIOLOGY OF GENDER 3 Credit Hours

(Slashed with SOC 62566) Examination of theories and research on gender origins, characteristics and changes. Emphasizes recent empirical research on gender role patterns and processes in various industrial societies. Akron 3850:639.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72760 DEVIANCE 3 Credit Hours

(Slashed with SOC 62760) Examination of nature, types and controls of deviance; analysis of conceptual levels, theoretical contributions, processes in social labeling and self labeling, case studies, social consequences and problems. Akron 3850:663.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72870 SOCIOLOGY OF RACE AND ETHNICITY 3 Credit Hours

(Slashed with SOC 62870) An in-depth study of the theories, models, research approaches and substantive areas that constitute the sociology of race and ethnicity. Akron 3850:651.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72872 SOCIAL PSYCHOLOGY AND INEQUALITY 3 Credit Hours

(Slashed with SOC 62872) Introduces students to sociological social psychology work that examines the reproduction of inequality. Specifically, the course focuses on "generic social processes" in how individuals, through interaction, are complicit or resistant in the reproduction of inequality through processes such as identity work, collective identity work, emotion work, othering and boundary maintenance. Mechanisms for change are also considered.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72894 COLLEGE TEACHING OF SOCIOLOGY 3 Credit Hours

(Repeatable for credit)(Slashed with SOC 62894) Preparation for college teaching. Course may not be applied toward the doctoral degree. Akron 3850:700.

Prerequisite: Sociology major; and graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

SOC 72895 SPECIAL TOPICS 3 Credit Hours

(Repeatable for credit)(Slashed with SOC 62895) Offered irregularly when unusual resources and/or opportunities permit. Topic will be announced when scheduled.

Prerequisite: Sociology major; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

SOC 72896 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit)(Slashed with SOC 62896) Intensive pursuit of a subject matter beyond normal course coverage with the possibility of associated research. Students may apply a maximum 6 credit hours combined in individual investigation (SOC 72896) and research (SOC 72898) toward the doctoral degree.

Prerequisite: Sociology major; and doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

SOC 72898 RESEARCH 1-3 Credit Hours

(Repeatable for credit)(Slashed with SOC 62898) Pursuit of research interests that can include the student's project and/or a faculty member's project. Student may apply a maximum of 6 credits combined of research (SOC 72898) and individual investigation (SOC 72896) toward the doctoral degree.

Prerequisite: Sociology major; and doctoral standing; and special approval.

Schedule Type: Research

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

SOC 82199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required first of which will be semester in which dissertation is begun and continuing until 30 hours are completed. Akron 3850: 899.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

SOC 82299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

School of Biomedical Sciences

Biomedical Sciences (BMS)

BMS 40196 INDIVIDUAL INVESTIGATION IN BIOMEDICAL SCIENCES

(ELR) 1-3 Credit Hours

(Repeatable for credit) Research study under the direction of a BMS faculty mentor. Students majoring in biochemistry, biology, biotechnology, chemistry, neuroscience and physics are eligible to enroll in this course, but must have 18 credit hours in their major completed.

Prerequisite: Minimum 2.750 overall GPA; and Biochemistry major or Biology major or Biotechnology major or Chemistry major or Neuroscience major or Physics major; and departmental and faculty mentor approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BMS 50703 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours

(Slashed with BMS 70703) Course examines the neural and molecular mechanisms underlying learning and memory formation. Covers cellular mechanisms of learning, including long-term potentiation and basic electrophysiology in invertebrate and mammalian preps. Transcriptional and post-translational modifications required for learning and memory formation, genomic signaling and protein synthesis. Also covers structural changes of neurons associated with memory formation, and the different behavioral methods for studying memory.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 60110 CAREER AND PROFESSIONAL SKILLS FOR LIFE SCIENTISTS 2 Credit Hours

(Cross-listed with BSCI 60110)(Slashed with BMS 80110 and BSCI 80110) This course helps prepare graduate students for advanced careers in science. Students learn about a variety of possible careers, prepare application materials and develop their professional oral and writing skills.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 60120 LABORATORY TECHNIQUES IN BIOMEDICAL SCIENCES 2 Credit Hours

(Repeatable once for credit) Minimum of two laboratory rotations per semester by arrangement with individual faculty members.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60196 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for a maximum of 6 credit hours) (Slashed with BMS 70196) Directed investigation under supervision of faculty member in biomedical sciences and with prior approval.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

BMS 60198 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for master's level graduate students. Credits earned may be applied toward degree requirements if department approves.

Prerequisite: Graduate standing; and special approval of adviser.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BMS 60199 THESIS I 2-6 Credit Hours

Thesis students must register for a minimum of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval of adviser.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BMS 60200 FOUNDATIONS OF NEUROSCIENCE 3 Credit Hours

(Slashed with BMS 80200) (Cross-listed with BSCI 60200 and BSCI 80200) This is a graduate-level introductory neuroscience course that will survey aspects of molecular and cellular neuroscience, the biophysics of the nervous system, basic neuroanatomy, and the homeostatic regulation of the periphery. After completion of this course students should have an understanding of how cells of the nervous system work, how these cells interact with homeostatic systems important to the regulation of peripheral physiology and behavior, and the basic neuroanatomy of these regulatory systems, including major neurotransmitter and neuroendocrine systems. Upon completion of this course, students should be prepared for advanced neuroscience coursework.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 60251 THEORY AND PRACTICE OF CLONING AND GENETIC ENGINEERING 2 Credit Hours

(Slashed with BMS 70251) Recent advances in the development and understanding of genetic engineering, genomic DNA organization and gene therapy will be discussed.

Prerequisite: BSCI 50158; and graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BMS 60291 SEMINAR IN CELLULAR AND MOLECULAR BIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 70291) Credits may be applied toward degree if department approves.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60295 SPECIAL TOPICS IN CELLULAR AND MOLECULAR BIOLOGY 1-5 Credit Hours

(Slashed with BMS 70295)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 60299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: 6 hours of BMS 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BMS 60440 CELLULAR AND MOLECULAR SIGNALING 3 Credit Hours

(Slashed with BMS 70440) The relevant and current topics associated with cellular signaling are covered. Topics include receptor pharmacology, classes and regulation, transcription factors, cell cycle signaling and cell-cell communication.

Prerequisite: BSCI 40143 or BSCI 50143 or BSCI 70143; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 60462 NEUROBIOLOGY: SYSTEMS AND BEHAVIOR 4 Credit Hours

(Slashed with BMS 70462) (Cross-listed with BSCI 60462 and BSCI 80462). Provides broad coverage of the parts of the central nervous systems and how they integrate sensory information, drive motor function and regulate behavior.

Prerequisite: BMS 60729 or BMS 70729; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 60465 MEDICAL NEUROSCIENCE 6 Credit Hours

(Slashed with BMS 70465) Detailed examination of human neuroanatomy and nervous system function.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Combined Lecture and Lab

Contact Hours: 5 lecture, 3 lab

Grade Mode: Standard Letter

BMS 60491 SEMINAR IN MEDICAL PHYSIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 70491) Credits may be applied toward degree if department approves.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60495 SPECIAL TOPICS IN PHYSIOLOGY 1-5 Credit Hours

(Slashed with BMS 70495)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 60502 MOLECULAR PHARMACOLOGY 4 Credit Hours

(Slashed with BMS 70502) General principles of pharmacology including metabolism, action, interactions, side effects, toxicity and therapeutic use of select drug topics. Focus is placed on the molecular and cellular targets of drug action.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 60591 SEMINAR IN PHARMACOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 70591) Credits may be applied toward degree if department approves. Repeated registration permitted.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60595 SPECIAL TOPICS IN PHARMACOLOGY 1-5 Credit Hours

(Slashed with BMS 70595)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 60596 INDIVIDUAL INVESTIGATION IN PHARMACOLOGY 1-3 Credit Hours

(Slashed with BMS 70596) (Repeatable for credit) Experience with various laboratory techniques and procedures used in pharmacological research with application to experimental designs.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

BMS 60729 CELLULAR AND MOLECULAR NEUROSCIENCE 4 Credit Hours

(Slashed with BMS 70729) The relation of aspects of the neurosciences to the fundamental properties of nervous tissue, establishing a firm base in experimental neurobiology.

Prerequisite: Graduate standing; and special approval of instructor.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 60751 CURRENT RESEARCH IN AUDITORY NEUROBIOLOGY 1 Credit Hour

(Slashed with BMS 70751) (Repeatable for a maximum of four credit hours) Presentation-based by faculty in the Auditory Neuroscience Group. Topics will vary each semester. Each class presentation will highlight recent advances in auditory neurobiology, cover relevant background, and involve discussion of methodology, experimental design, and interpretive issues related to the research. Students will prepare a presentation on a topic chosen in conjunction with one of the faculty members. Assessment is based on presentation quality and active participation throughout the semester.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 60791 SEMINAR IN NEUROBIOLOGY 1 Credit Hour

(Slashed with BMS 70791) (Repeatable for credit) Credits may be applied toward degree if department approves.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60795 SPECIAL TOPICS IN NEUROBIOLOGY 1-5 Credit Hours

(Slashed with BMS 70795)(Repeatable for credit) Study of problems of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 61000 RESPONSIBLE CONDUCT OF RESEARCH 1 Credit Hour

(Slashed with BMS 71000) Introduction to professional and ethical conduct of research. Topics include codes and laws governing research, identification of scientific misconduct, plagiarism, authorship and intellectual properties, ethical animal and human research.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BMS 61001 INTRODUCTION TO BIOMEDICAL SCIENCES 1 Credit Hour

(Slashed with BMS 71001) Seminar for all students in Biomedical Sciences. Repeat registration permitted.

Prerequisite: Biomedical Sciences major; and graduate standing.

Schedule Type: Seminar

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 70120 LABORATORY TECHNIQUES IN BIOMEDICAL SCIENCES 2 Credit Hours

(Slashed with BMS 60120) (Repeatable once for credit) Minimum of two laboratory rotations per semester by arrangement with individual faculty members. May be repeated once.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Research

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70196 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Slashed with BMS 60196) (Repeatable for credit) Directed investigation under supervision of faculty member in biomedical sciences and with prior approval.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

BMS 70251 THEORY AND PRACTICE OF CLONING AND GENETIC ENGINEERING 2 Credit Hours

(Slashed with BMS 60251) Recent advances in the development and understanding of genetic engineering, genomic DNA organization and gene therapy will be discussed.

Prerequisite: BSCI 50158; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BMS 70291 SEMINAR IN CELLULAR AND MOLECULAR BIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 60291) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70295 SPECIAL TOPICS IN CELLULAR AND MOLECULAR BIOLOGY 1-5 Credit Hours

(Slashed with BMS 60295)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 70440 CELLULAR AND MOLECULAR SIGNALING 3 Credit Hours

(Slashed with BMS 60440) The relevant and current topics associated with cellular signaling are covered. Topics include receptor pharmacology, classes and regulation, transcription factors, cell cycle signaling and cell-cell communication.

Prerequisite: BSCI 40143 or BSCI 50143 or BSCI 70143; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 70462 NEUROBIOLOGY: SYSTEMS AND BEHAVIOR 4 Credit Hours

(Slashed with BMS 60462) (Cross-listed with BSCI 60462 and BSCI 80462) Provides broad coverage of the parts of the central nervous systems and how they integrate sensory information, drive motor function and regulate behavior.

Prerequisite: BMS 60729 or BMS 70729; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 70465 MEDICAL NEUROSCIENCE 6 Credit Hours

(Slashed with BMS 60465) Detailed examination of human neuroanatomy and nervous system function.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Combined Lecture and Lab

Contact Hours: 5 lecture, 3 lab

Grade Mode: Standard Letter

BMS 70491 SEMINAR IN MEDICAL PHYSIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 60491) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70495 SPECIAL TOPICS IN PHYSIOLOGY 1-5 Credit Hours

(Slashed with BMS 60495)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 70502 MOLECULAR PHARMACOLOGY 4 Credit Hours

(Slashed with BMS 60502) General principles of pharmacology including metabolism, action, interactions, side effects, toxicity and therapeutic use of select drug topics. Focus is placed on the molecular and cellular targets of drug action.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 70591 SEMINAR IN PHARMACOLOGY 1 Credit Hour

(Slashed with BMS 60591) (Repeatable for credit) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70595 SPECIAL TOPICS IN PHARMACOLOGY 1-5 Credit Hours

(Slashed with BMS 60595)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 70596 INDIVIDUAL INVESTIGATION IN PHARMACOLOGY 1-3 Credit Hours

(Slashed with BMS 60596) (Repeatable for credit) Experience with various laboratory techniques and procedures used in pharmacological research with application to experimental designs.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

BMS 70703 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours

(Slashed with BMS 50703) Course examines the neural and molecular mechanisms underlying learning and memory formation. Covers cellular mechanisms of learning, including long-term potentiation and basic electrophysiology in invertebrate and mammalian preps. Transcriptional and post-translational modifications required for learning and memory formation, genomic signaling and protein synthesis. Also covers structural changes of neurons associated with memory formation, and the different behavioral methods for studying memory.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 70729 CELLULAR AND MOLECULAR NEUROSCIENCE 4 Credit Hours

(Slashed with BMS 60729) The relation of aspects of the neurosciences to the fundamental properties of nervous tissue, establishing a firm base in experimental neurobiology.

Prerequisite: Doctoral standing; and special approval of instructor.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 70751 CURRENT RESEARCH IN AUDITORY NEUROBIOLOGY 1 Credit Hour

(Slashed with BMS 60751) (Repeatable for a maximum of four credit hours) Presentation-based by faculty in the Auditory Neuroscience Group. Topics will vary each semester. Each class presentation will highlight recent advances in auditory neurobiology, cover relevant background, and involve discussion of methodology, experimental design, and interpretive issues related to the research. Students will prepare a presentation on a topic chosen in conjunction with one of the faculty members. Assessment is based on presentation quality and active participation throughout the semester.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 70791 SEMINAR IN NEUROBIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 60791) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70795 SPECIAL TOPICS IN NEUROBIOLOGY 1-5 Credit Hours

(Slashed with BMS 60795)(Repeatable for credit) Study of problems of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 71000 RESPONSIBLE CONDUCT OF RESEARCH 1 Credit Hour

(Slashed with BMS 61000) Introduction to professional and ethical conduct of research. Topics include codes and laws governing research, identification of scientific misconduct, plagiarism, authorship and intellectual properties, ethical animal and human research.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BMS 71001 INTRODUCTION TO BIOMEDICAL SCIENCES 1 Credit Hour

(Slashed with BMS 61001) Introductory seminar for new students in Biomedical Sciences graduate programs. This seminar will expose students to the different faculty research programs available in the program.

Prerequisite: Doctoral standing in Biomedical Sciences.

Schedule Type: Seminar

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 78630 PRINCIPLES OF BIOLOGICAL ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 68630) Graduate-level introduction to the field of biological anthropology. Topics include genetics, human variation, fossil and modern primates and early man.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 78637 BIOANTHROPOLOGICAL DATA ANALYSIS I 5 Credit Hours

(Cross-listed with ANTH 68637) Examination of methods of univariate and bivariate experimental design. This survey emphasizes tests of hypothesis and estimation techniques with both classical and nonparametric procedures.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

BMS 78638 BIOANTHROPOLOGICAL DATA ANALYSIS II 3 Credit Hours

(Cross-listed with ANTH 68638) This survey of multivariate analysis in anthropology includes one-sample data exploration, multiple sample problems and regression methods. It also includes computer applications.

Prerequisite: BMS 78637; and Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 78691 SEMINAR IN BIOLOGICAL ANTHROPOLOGY 1 Credit Hour

(Repeatable for credit) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 78692 FIELD WORK IN PALEOANTHROPOLOGY 1-5 Credit Hours

(Repeatable for credit) Excavation and/or field survey of miocene and/or plio-pleistocene hominid localities.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Field Experience

Contact Hours: 1-5 other

Grade Mode: Standard Letter

BMS 78695 SPECIAL TOPICS IN BIOLOGICAL ANTHROPOLOGY 1-5 Credit Hours

(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 80110 CAREER AND PROFESSIONAL SKILLS FOR LIFE SCIENTISTS 2 Credit Hours

(Cross-listed with BSCI 80110)(Slashed with BMS 60110 and BSCI 60110)

This course helps prepare graduate students for advanced careers in science. Students learn about a variety of possible careers, prepare application materials and develop their professional oral and writing skills.

Prerequisite: Doctoral standing.**Schedule Type:** Lecture**Contact Hours:** 2 lecture**Grade Mode:** Satisfactory/Unsatisfactory**BMS 80198 RESEARCH 1-15 Credit Hours**

(Repeatable for credit) Research for doctoral students who have not yet passed candidacy examination.

Prerequisite: Doctoral standing; and special approval of adviser.**Schedule Type:** Research**Contact Hours:** 1-15 other**Grade Mode:** Satisfactory/Unsatisfactory-IP**BMS 80199 DISSERTATION I 15 Credit Hours**

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required, first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours. Students must successfully complete the doctoral exam before taking this course.

Prerequisite: Doctoral standing; and special approval.**Schedule Type:** Dissertation**Contact Hours:** 15 other**Grade Mode:** Satisfactory/Unsatisfactory-IP**BMS 80200 FOUNDATIONS OF NEUROSCIENCE 3 Credit Hours**

(Slashed with BMS 60200) (Cross-listed with BSCI 60200 and BSCI 80200) This is a graduate-level introductory neuroscience course that will survey aspects of molecular and cellular neuroscience, the biophysics of the nervous system, basic neuroanatomy, and the homeostatic regulation of the periphery. After completion of this course students should have an understanding of how cells of the nervous system work, how these cells interact with homeostatic systems important to the regulation of peripheral physiology and behavior, and the basic neuroanatomy of these regulatory systems, including major neurotransmitter and neuroendocrine systems. Upon completion of this course, students should be prepared for advanced neuroscience coursework.

Prerequisite: Doctoral standing.**Schedule Type:** Lecture**Contact Hours:** 3 lecture**Grade Mode:** Standard Letter**BMS 80299 DISSERTATION II 15 Credit Hours**

(Repeatable for credit) Continuing registration of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: 30 hours of BMS 80199; and Doctoral standing.**Schedule Type:** Dissertation**Contact Hours:** 15 other**Grade Mode:** Satisfactory/Unsatisfactory-IP

School of Communication Studies

Communication Studies (COMM)

COMM 15000 INTRODUCTION TO HUMAN COMMUNICATION (KADL) 3 Credit Hours

This course offers an overview of communication in interpersonal, group and public contexts. Students will develop a wide range of practical communication skills like listening, giving and receiving constructive feedback, presenting information, persuading audiences and more that will help them succeed in both personal and professional settings. These skills will help prepare students to engage confidently in interpersonal interactions, group discussions and public speaking.

Prerequisite: None.**Schedule Type:** Lecture**Contact Hours:** 3 lecture**Grade Mode:** Standard Letter**Attributes:** Kent Core Additional, TAG Communication, Transfer Module Composition**COMM 20000 FOUNDATIONS OF COMMUNICATION 3 Credit Hours**

This course serves as an introduction to the major. Provides an introduction to communication studies faculty, research and the major concentrations of the school; highlights possible careers in communication studies; and introduces possible ways students can supplement curriculum efforts through involvement.

Prerequisite: None.**Schedule Type:** Lecture**Contact Hours:** 3 lecture**Grade Mode:** Standard Letter**COMM 20001 INTERPERSONAL COMMUNICATION 3 Credit Hours**

Introduction to human interpersonal communication. Components and structures situations and contexts are described nonevaluative focus with emphasis on informal experience.

Prerequisite: None.**Schedule Type:** Lecture**Contact Hours:** 3 lecture**Grade Mode:** Standard Letter**Attributes:** TAG Communication**COMM 26000 CRITICISM OF PUBLIC DISCOURSE (KHUM) 3 Credit Hours**

A critical examination of selected public speeches representing diverse viewpoints on a variety of historic and contemporary issues, emphasizing methods of evaluating public oral communication and the role of speechmaking in free societies.

Prerequisite: None.**Schedule Type:** Lecture**Contact Hours:** 3 lecture**Grade Mode:** Standard Letter**Attributes:** Kent Core Humanities, Transfer Module Humanities

COMM 30000 COMMUNICATION RESEARCH METHODS 3 Credit Hours

Communication research skills are marketable for career advancement. This course provides basic skills in communication research in order to evaluate and have conversations about research findings with others. The class gives students the tools to know what questions to ask when an individual, social media post, or organization uses research to back up thinking, make an argument, or come to a decision. Students will learn how to conduct interviews, focus groups, surveys and other research tools and interpret that information to be competitive in industries such as, media companies, nonprofit and public relations.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 34000 DIFFICULT DECISIONS IN COMMUNICATION (WIC) 3 Credit Hours

Right and wrong. Good and bad. Moral and immoral. These phrases are commonly used to describe the decisions people must make daily. Communication professionals must wrestle with ethical issues like privacy, transparency, representation, advocacy, power, truthfulness. In this course, students will explore the complex circumstances surrounding the rights and responsibilities of the current communication landscape to prepare them for life after graduation.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

COMM 35464 ARGUMENTATION AND PERSUASIVE COMMUNICATION 3 Credit Hours

Students will be introduced to principles and practices of effective argumentation and persuasive communication. Through exposure to rhetorical and social scientific theories, students will engage in research to develop argumentative cases and assess persuasive messaging strategies in mediated contexts. The course emphasizes processes of reasoning, the nature and use of evidence, recognition of common fallacies, media and information literacy, and generation and construction of valid and ethical arguments. Assignments will allow students to practice argumentation and persuasive communication as well as develop critical thinking skills needed to evaluate arguments and persuasive messages.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 35600 COMMUNICATION IN SMALL GROUPS AND TEAMS 3 Credit Hours

Focuses on the application and practice of group communication skills and techniques applied to goal-oriented small group situations. Course explores communication theory and research about small groups and teams, relating in group and teams, managing conflict in groups and teams, leadership in groups and teams and problem-solving in groups and teams.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Communication

COMM 35852 INTERCULTURAL COMMUNICATION 3 Credit Hours

Theory and application of communication between people of different cultures and different national systems.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 35860 INTERVIEWING 3 Credit Hours

Techniques, principles and practical skills for interviews most likely to occur in business environments; job searches and selection interviews, information-gathering interviews, performance appraisals, counseling interviews and persuasive interviews.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 35863 BUSINESS AND PROFESSIONAL COMMUNICATION 3 Credit Hours

This course covers public and conference speaking, conducting meetings, electronic presentations, interviewing and interpersonal relations as applied to business and organizational settings.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 35864 ORGANIZATIONAL COMMUNICATION 3 Credit Hours

Application of communication theory to organizational settings. Exploration of communication structures processes and methods in organizations.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 35902 COMMUNICATION THEORY 3 Credit Hours

Study of the process of human communication. Emphasis on source, message, channel and receiver dimensions of communication. Examination of major theories of communication and social influence.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 35912 GENDER AND COMMUNICATION 3 Credit Hours

Explores how gender is socially constructed in everyday communicative interactions and institutional contexts, including close relationships, organizations, school settings and the media. In the process, this course uncovers how the social construction of gender perpetuates power imbalances in society.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 36001 PUBLIC COMMUNICATION IN SOCIETY 3 Credit Hours

Examines communication in public settings. Content includes communication campaigns, corporate crisis communication, public opinion and communication issues in executive, legislative and judicial settings. Students explore the influence of mediated messages via application of mass communication theories and constructs.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 36500 HEALTH COMMUNICATION 3 Credit Hours

Introduction to the roles of communication in health, health and risk behavior, health care, and health promotion, including interpersonal, organizational and media contexts.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 37091 SEMINAR IN COMMUNICATION AND POPULAR CULTURE 3 Credit Hours

(Repeatable twice for credit) Popular culture is driven by communication. The messages contained in that communication can be both prescriptive and descriptive and can reveal much about people's culture, attitudes, fears, values and perceptions of reality. Course will focus on messages contained in various popular culture artifacts including, but not limited to film, television, internet, music and literature.

Prerequisite: None.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMM 40095 SPECIAL TOPICS IN COMMUNICATION STUDIES 1-6 Credit Hours

(Repeatable for credit) (Slashed with COMM 50095 and COMM 70095)

Special topic courses cover emerging issues or specialized content in Communication Studies that is not represented in the existing curriculum. Not offered every semester.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-6 lecture

Grade Mode: Standard Letter

COMM 41000 SPORTS COMMUNICATION 3 Credit Hours

An examination of the inter-relationship between sports and communication in today's society. Students discuss and examine sports through communication lenses (groups, interpersonal, media/mediated and organizational).

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 42000 MEDIA, WAR AND PROPAGANDA 3 Credit Hours

Examines the influence of TV, movies, and media images of war, the war effort and portrayals of enemies, protesters and anti-war groups on communication research, including mass communication and persuasion.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 43000 COMMUNICATION TECHNOLOGY AND HUMAN INTERACTION 3 Credit Hours

Course aims to help students develop a critical understanding of diverse newer media and how they are used and affect human interaction. In achieving this goal, students are expected to learn how newer media are different from and similar to face-to-face communication or traditional mass media, newer media's social and psychological effects on human interactions, and theoretical frameworks explaining these media.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 44500 TRAVEL AND TRANSMEDIA STORYTELLING 3 Credit Hours

Examine travel as a communicative experience. Students are introduced to the basic principles of travel storytelling by leveraging visual, audio and writing tools to produce blog entries, podcasts, essays, social media posts, videos, travelogues and other types of content. The course infuses production of multimedia storytelling with robust theoretical and conceptual discussions that underpin ethical traveling, mindful intercultural encounters and in-depth cultural understanding. Students will learn about competencies they need to critically reflect on their behaviors as travelers and as travel storytellers. In addition to acquiring skills to proficiently critique travel media artifacts ranging from adventure reality television to tourism guides, students will engage in experiential learning through applied workshops, field visits, project-based teamwork, and other hands-on activities. Throughout the semester, students will: (1) critically analyze traditional and new media travel storytelling media artifacts; and (2) develop travel storytelling skills with the aim of creating content for traditional and social media.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 44550 FOOD, MEDIA AND FOODWAYS 3 Credit Hours

There is an increased awareness of food's significance within contemporary society and culture. The aim of this course is to try to give answers to the questions of what food communication is and how we understand food and foodways through a cultural lens. Overall, the course addresses the relationship between food, mediated communication and culture and probes how these relationships affect how we negotiate with our identities, cultures and environments.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45006 MEDIA USE AND EFFECTS 3 Credit Hours

The course examines the ways in which communication scholars have conceptualized and analyzed media processes, uses and effects. We explore such issues as media portrayals, news coverage, political campaigns, sex and violence in the media, media entertainment, children and television, and newer communication technologies.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45007 FREEDOM OF SPEECH 3 Credit Hours

(Slashed with COMM 55007) What kind of speech is protected by the First Amendment? What can the government censor? How have issues like libel, slander, sedition, blasphemy, obscenity and words that provoke people to anger affect how we communicate in today's society? It seems simple at first, "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances." Yet, ever since its adoption, these 45 words have been a point of contention for citizens, the Supreme Court and the government. This course will help students grasp why the First Amendment is an important part of American life, what it protects and why it matters personally and professionally.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45091 SEMINAR IN COMMUNICATION STUDIES 3 Credit Hours

(Repeatable for credit) Examination of selected communication topics/ areas and related research.

Prerequisite: None.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMM 45092 INTERNSHIP IN COMMUNICATION STUDIES (ELR) 3-6 Credit Hours

(Repeatable for credit) A formal, cooperative field experience with a designated organization or agency as designed by the student and the internship coordinator.

Prerequisite: 9 credit hours of COMM coursework; and junior standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

COMM 45196 INDEPENDENT STUDY: COMMUNICATION STUDIES 1-6 Credit Hours

(Repeatable for a maximum of 6 credit hours) Readings and/or research on problems approved by undergraduate coordinator in consultation with student's adviser and faculty project director.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 45459 COMMUNICATION AND CONFLICT MANAGEMENT 3 Credit Hours

(Slashed with COMM 55459) Conflict is inevitable in relationships, but it doesn't have to destroy them. This course highlights how effective conflict management leads to happier and more fulfilling relationships. It also provides students with essential communication skills for resolving conflicts in personal and professional environments.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45660 POLITICAL COMMUNICATION 3 Credit Hours

Modern society requires us to communicate with others to craft laws and policies, address competing needs and select our representatives. This course will provide an overview of this political communication process. Course content includes the importance of communication in democracies, the role of media in politics, ways to analyze political messages and studies of contemporary campaigns.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45678 SOCIAL MEDIA AND GLOBALIZATION 3 Credit Hours

The course introduces students to social media and how they operate in a globalized context. Through the relevant literature, students will be able to use key theoretical tools to understand and critically analyze implications of globalization and social media on issues related to communication, social inequalities, citizenship, and youth cultures. The students will navigate the relationship between globalization and social media processes through practical examples including media texts, audiovisual material, social media content, etc. In class, the students will be expected to fully engage in discussions and group activities designed to emphasize their individual, professional, and academic growth.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45756 INTERNATIONAL COMMUNICATION 3 Credit Hours

International communication examines global communication approaches as they relate to issues of justice, equity and peaceful coexistence. The course critically examines the role of communication in shaping international politics, public diplomacy, social movements and across border cultural practices. Specifically, it engages with global communication and information inequalities and how this divide is intertwined with economic, environmental and material disparities that hinder the development aspirations of communities in non-Western contexts. Driven by the proposition that the sustainability of our planet and its inhabitants rests upon global collaboration—not competition—the course puts communication as a cornerstone of global understanding. By closely studying actors such as nation states, corporations, hackers, and activists, students will be equipped with theoretical and practical literacies of international communication that empower them to respond to our shared problems ranging from the climate crisis to pandemics, and, in doing so, advocate for a just, equitable and sustainable global society.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45760 MEDIA AND NATIONALISM 3 Credit Hours

The goal of this course is to introduce and discuss the images, signs, symbols, commodities, cultural commercial products and personal and collective identities that emerge and circulate through mundane engagement with commodities and global media forms. Students will analyze connections and tensions between the forces of nationalism and the forces of globalization and explore some of the scholarly literature about the role of the media and consumer culture in those tensions.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45766 COMMUNICATION IN A GLOBAL SOCIETY 3 Credit Hours

Offers a broad-based treatment of a variety of topics in our "globalizing" world from the standpoint of communication. Considers the importance of communication on multiple levels of the international landscape, ranging from the very ways globalization is defined and framed to new communication media and networks, to campaigns and debates about global issues, and including the transformation of organizational and institutional relationships as well as local-to-global interactions.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45776 COMMUNICATION AND TERRORISM 3 Credit Hours

This course examines many facets of terrorism, including its historic roots and its social, political, ethnic, geographic, moral and spiritual causes. Students will be challenged to understand basic definitions of terrorism and think beyond conventional assumptions about terrorist organizations, especially assumptions derived from mass media, popular culture and Western biases. We will examine two central premises: first, that communication – spoken/written, traditional/nontraditional, public/private, visual/symbolic – is both a tool and the goal of organized terrorism; and second, that terrorist organizations use brand-positioning strategies we often associate with commercial entities. Students will be required to think deeply, critically and objectively about the narratives, messages, images and symbolism used by past and present-day terrorist movements.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45807 HIGH IMPACT PROFESSIONAL SPEAKING 3 Credit Hours

Principles and practices of effective communication in a variety of professional contexts. Emphasis on professional presentation skills development.

Prerequisite: COMM 15000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45865 ORGANIZATIONAL COMMUNICATION TRAINING AND DEVELOPMENT (ELR) 3 Credit Hours

This course prepares students for careers as professional development specialists, communication consultants and corporate coaches. They acquire practical skills to design and deliver communication training programs using a needs centered approach. Theory and application underpin a comprehensive training approach, incorporating contemporary best practices and real-world applications for effective modern training.

Prerequisite: COMM 35864.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

COMM 45880 ORGANIZATIONAL ADVOCACY 3 Credit Hours

Organizations are constantly changing, adapting and creating new ways of interacting with each other, the public and their employees. Traditional approaches to organizational change are also advancing as organizations communicate externally and internally to various stakeholders. Advocacy experts are growing in demand across multiple types of organizations. In this course, students will learn a stakeholder model of strategic communication to develop and design an approach to meaningful organizational change.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45902 COMMUNICATION AND INFLUENCE (WIC) 3 Credit Hours

Explores theories and strategies of social influence in contemporary society. Students discuss and critique influential communication practices such as interpersonal persuasion, product and services advertisements, social movements and political messages.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

COMM 45903 COMMUNICATION CAMPAIGNS (ELR) 3 Credit Hours

The primary purpose of this course is to enable students to understand the fundamentals of how persuasive communication campaigns are developed, implemented and evaluated.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

COMM 45957 LANGUAGE IN THE 21ST CENTURY 3 Credit Hours

An overview of how languages affect the way we communicate with each other. In this course, students will learn about verbal and nonverbal communication, language evolution, cultural differences in language, language and social change, languages in traditional and social media and language in the workplace.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 45959 NONVERBAL COMMUNICATION 3 Credit Hours

Students will explore how we create meaning through nonverbal behaviors including physical appearance, eye behavior, facial expressions, gesture, posture and voice. In addition, readings and class discussions investigate nonverbal communication in online platforms, impression management, flirting behaviors and how to detect deception. The importance of culture in interpreting nonverbal codes will be emphasized, along with understanding how nonverbal and verbal codes interact in different communication contexts.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 46091 SENIOR SEMINAR (ELR) 3 Credit Hours

(Repeatable for credit) Senior Seminar is an advanced level course that features current topics in communication and is driven by problem-analysis and a search for solutions. In-depth exploration and analysis of a communication issue is an opportunity for students to synthesize coursework and communication experiences into transferable skills and applications. A summative experience, this course may result in a research project or paper, portfolio, multimedia presentation, community-based initiative, and or a public presentation. Topics vary based on faculty expertise and research interests. The Senior Seminar course is applied and experiential.

Prerequisite: Senior standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

COMM 46507 COMMUNICATION FOR HEALTH AND WELL-BEING 3 Credit Hours

From bullying to social support, whether face-to-face or on Instagram, interpersonal communication affects wellness. This course is designed to help students demonstrate the many ways that our interpersonal and mediated interactions with friends, family and acquaintances can affect our health and well-being. Students will also learn about communication tools that can help reduce health risks and bolster their health and the health of others.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 46601 COMMUNICATION IN RELATIONSHIPS 3 Credit Hours

Synthesizes theory and research about communication in the development, maintenance and dissolution of the relationships of romantic partners, personal friends, professional colleagues, spouses and family members. Sub-topics include personal identity, culture, social attraction, self-disclosure, relationship stages, affection, love, sex, social support, conflict, power dynamics, hurt, jealousy and infidelity.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 46605 COMMUNICATION ACROSS THE LIFESPAN 3 Credit Hours

Explores common life stages (childhood, youth, midlife and old age) and the transitioning of communication within and between these different stages of development. Sub-topics include life span communication and: family, friendships, social and gender role development, multigenerational workplace and the use of varied communication technologies facilitating human interaction across the life span.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 46608 FAMILY COMMUNICATION 3 Credit Hours

Examines the interactions among individuals in families. Sub-topics of the course include family communication and storytelling, identity, rules, conflict, intimacy, stress, external influences on family communication, and family communication and the media.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 50095 SPECIAL TOPICS IN COMMUNICATION STUDIES 1-6 Credit Hours

(Repeatable for credit) (Slashed with COMM 40095 and COMM 70095)

Special topic courses cover emerging issues or specialized content in Communication Studies that is not represented in the existing curriculum. Not offered every semester.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-6 lecture

Grade Mode: Standard Letter

COMM 55007 FREEDOM OF SPEECH 3 Credit Hours

(Slashed with COMM 45007) What kind of speech is protected by the First Amendment? What can the government censor? How have issues like libel, slander, sedition, blasphemy, obscenity and words that provoke people to anger affect how we communicate in today's society? It seems simple at first, "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances." Yet, ever since its adoption, these 45 words have been a point of contention for citizens, the Supreme Court and the government. This course will help students grasp why the First Amendment is an important part of American life, what it protects and why it matters personally and professionally.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 55093 VARIABLE TITLE WORKSHOP IN COMMUNICATION STUDIES 1-6 Credit Hours

(Repeatable for credit) Variable topic workshop in communication studies.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

COMM 55459 COMMUNICATION AND CONFLICT MANAGEMENT 3 Credit Hours

(Slashed with COMM 45459) Conflict is inevitable in relationships, but it doesn't have to destroy them. This course highlights how effective conflict management leads to happier and more fulfilling relationships. It also provides students with essential communication skills for resolving conflicts in personal and professional environments.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 55766 COMMUNICATION IN A GLOBAL SOCIETY 3 Credit Hours

(Slashed with COMM 45766) Offers a broad-based treatment of a variety of topics in our "globalizing" world from the standpoint of communication. Considers the importance of communication on multiple levels of the international landscape, ranging from the very ways globalization is defined and framed to new communication media and networks, to campaigns and debates about global issues, and including the transformation of organizational and institutional relationships as well as local-to-global interactions.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 60199 THESIS I 2-6 Credit Hours

Thesis student must register for a total of 6 hours, 2 to 6 hours in a single semester or distributed over several semesters if desired.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 60299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: COMM 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 61198 MASTERS PROJECT IN COMMUNICATION STUDIES 3 Credit Hours

One of the non-thesis options for graduation. Students propose a theory-driven applied research project on a communicative phenomenon or issue. The final written paper is evaluated by the students' academic advisor and the Graduate Coordinator to deem satisfactory for graduation.

Prerequisite: COMM 65000 and COMM 65020 and COMM 65652.

Schedule Type: Research

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 64092 MASTERS INTERNSHIP IN COMMUNICATION STUDIES 3 Credit Hours

(Repeatable for credit) One of the non-thesis options for graduation. Students choose and secure an internship position with a designated organization or agency that requires the student to utilize communication skills and knowledge. Students complete 135 hours of internship. The employer, the academic advisor, and the Graduate Coordinator evaluate the student's overall performance. The advisor and the Graduate Coordinator determine whether the student complete the requirements.

Prerequisite: COMM 65000 and COMM 65020 and COMM 65652; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 65000 FOUNDATIONS OF COMMUNICATION AND ADVOCACY 3 Credit Hours

(Slashed with COMM 85000) This course will introduce students to the foundation of scientific inquiry and its application to effective advocacy generally and communication studies specifically. Research in the field of communication has been central to the study and practice of advocacy. Students will learn about the history of the field and representative communication perspectives and paradigms that have been central to the study and practice of advocacy in different contexts. In this course, students will explore how communication has played a role in advocacy and social change. Students will understand the root and the development of the field and thinking related to advocacy and will evaluate, critique and synthesize communication literature.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65020 QUANTITATIVE RESEARCH METHODS IN COMMUNICATION 3 Credit Hours

(Slashed with COMM 75020) An examination of basic quantitative social scientific research methods and procedures for the study of communication.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65040 QUALITATIVE RESEARCH METHODS IN COMMUNICATION 3 Credit Hours

Exploration of qualitative methods in human communication research. Focus on the nature of qualitative data participant observation, and archival strategies of data collection and interpretive and interactionist approaches to data analysis.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65070 SOCIAL INFLUENCE 3 Credit Hours

(Slashed with COMM 85070) This course explores theories, ethics, and strategies of social influence in contemporary society. Students discuss and critique influential communication practices such as advocacy, interpersonal persuasion, product and services advertisements, social movements and political messages.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMM 65093 VARIABLE TITLE WORKSHOP IN COMMUNICATION 1-6 Credit Hours

(Repeatable for credit) Variable topic workshop in communication studies.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

COMM 65096 INDIVIDUAL INVESTIGATION 1-6 Credit Hours

(Repeatable for a maximum of 6 credit hours) (Slashed with COMM 75096) Independent study of area or problem to be selected in consultation with graduate staff.

Prerequisite: Graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 65098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for master's level graduate students. Credits may be applied toward meeting degree requirements if school approves.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 65591 SEMINAR IN COMMUNICATION STUDIES 3 Credit Hours

(Repeatable for credit) (Slashed with COMM 75591) Seminar course in various research areas centered in communication studies.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMM 65652 THEORIES OF COMMUNICATION 3 Credit Hours

(Slashed with COMM 75652) Introduction to approaches in the study of human communication. Focuses on differing views of interaction from theory building and research-generation perspective.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65660 POLITICAL COMMUNICATION 3 Credit Hours

(Slashed with COMM 75660) An examination of political communication theory and research. Content includes approaches to political communication, role of the media in politics and analysis of political messages.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65661 COMMUNICATION IN AN INFORMATION SOCIETY 3 Credit Hours

(Slashed with COMM 75661) Examines how the development and use of newer communication technologies have influenced human communication. Considers the evolution, social and psychological impact, and culture of newer communication technologies such as the Internet, and how research adapts to these newer media.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65662 MEDIA EFFECTS 3 Credit Hours

(Slashed with COMM 85662) This course examines the uses and effects of mediated communication, media processes, how information flows through societies, and audience reactions to media messages. Attention is paid to diverse channels, audiences and representations in media across a range of contexts.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65665 PERSONAL AND MEDIATED COMMUNICATION 3 Credit Hours

(Slashed with COMM 75665) Examination of the interface of interpersonal and mediated communication in everyday life. Includes topics such as parasocial interaction, talk radio, TV co-viewing, cell phones, teleconferencing, computer-mediated relationships and media portrayals.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65670 INTERPERSONAL COMMUNICATION 3 Credit Hours

(Slashed with COMM 75670) Survey of recent theoretical developments and research in interpersonal communication. Topics include relationship development, interaction, interpersonal traits, compliance, conversational analysis and research methods.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65675 COMMUNICATION, UNCERTAINTY AND PRIVACY MANAGEMENT 3 Credit Hours

(Slashed with COMM 85675) Communication, uncertainty, and the management of private information examines theory and research about disclosure and uncertainty issues in communication in a variety of contexts. Course content examines disclosure and uncertainty management applications in relational contexts, health contexts, organizational contexts, and contexts involving human interaction occurring through technology.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65677 RELATIONAL COMMUNICATION 3 Credit Hours

(Slashed with COMM 85677) Relational communication provides an exploration of theory and research about the interactions among individuals in personal relationships. Subtopics of the course include communication and the development, maintenance, and dissolution of personal relationships, relationships across the life span, individual differences in relationships and relational processes, qualities and outcomes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65683 INTERGROUP COMMUNICATION 3 Credit Hours

(Slashed with COMM 85683) Overview of theory and research of communication between groups of individuals, including issues of discrimination, language, identity, social status, religion and demographics.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65686 INTERCULTURAL AND INTERGROUP COMMUNICATION 3 Credit Hours

This course will introduce students to intercultural and intergroup communication and factors contributing to successful communication among different cultures and social groups. In this course, we will discuss issues pertaining to identities and their relationships with advocacy intervention strategies. After completing this course, students will be able to analyze interactions among various groups from cultural and socio-psychological perspectives. They will learn to describe and discuss current issues of intercultural and intergroup communication by taking a critical and analytical approach. Furthermore, they will propose advocacy interventions based on their assessment of communication needs to improve relationships between members of cultures and/or social groups.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65736 GLOBAL COMMUNICATION AND PUBLIC DIPLOMACY 3 Credit Hours

(Slashed with COMM 85736) Provides students with an in-depth understanding of public diplomacy as an instrument of foreign policy by considering both Western and non-Western paradigms, case studies and policies. By placing communication as a central organizational framework, it critically explores the theory and practice of public diplomacy from historical and contemporary perspectives. It examines how governments, businesses and non-governmental organizations engage with foreign publics with the aim of exerting influence and seeking favorable political, cultural and economic conditions. Drawing from existing and emerging trends, it emphasizes the centrality of communication in the different avenues of public diplomacy including international broadcasting, media technology, educational and cultural exchange and global sporting events. By framing public diplomacy as a double-edged communication phenomenon that can be deployed as a means of global understanding/advocacy as well as a tool for conflict/domination, the course prepares students to be critical participants and targets of the global mechanics of public influence.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMM 65794 TEACHING OF COLLEGE COMMUNICATION 3 Credit Hours

(Repeatable for credit) (Slashed with COMM 75794) Training and experience in college teaching. Maximum of three hours applicable toward master's degree requirements.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65851 ORGANIZATIONAL COMMUNICATION 3 Credit Hours

(Slashed with COMM 85851) Structure, methodology and application of communication theory in industrial and organizational settings.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 65891 SEMINAR IN ORGANIZATIONAL COMMUNICATION 3,4 Credit Hours

(Repeatable for credit) Theories and problems of human communication within, between and/or among formal organizations.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3-4 other

Grade Mode: Standard Letter

COMM 66501 HEALTH COMMUNICATION 3 Credit Hours

(Slashed with COMM 86501) This course provides an overview of the ways health communication can empower individuals and communities to improve their health and well-being. Students will learn about theoretical and practical tools for communicating about and enhancing health in personal, community and healthcare contexts. In addition, the course explores how effective partnerships between researchers and community groups can be utilized in community-based participatory research.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 70095 SPECIAL TOPICS IN COMMUNICATION STUDIES 1-6 Credit Hours

(Repeatable for credit) (Slashed with COMM 40095 and COMM 50095) Special topic courses cover emerging issues or specialized content in Communication Studies that is not represented in the existing curriculum. Not offered every semester.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-6 lecture

Grade Mode: Standard Letter

COMM 75020 QUANTITATIVE RESEARCH METHODS IN COMMUNICATION 3 Credit Hours

(Slashed with COMM 65020) An examination of basic quantitative social scientific research methods and procedures for the study of communication.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 75040 QUALITATIVE RESEARCH METHODS IN COMMUNICATION 3 Credit Hours

(Slashed with COMM 65040) Exploration of qualitative methods in human communication research. Focus on the nature of qualitative data, participant observation and archival strategies of data collection and interpretive and interactionist approaches to data analysis.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 75093 VARIABLE TITLE WORKSHOP IN COMMUNICATION STUDIES 1-6 Credit Hours

(Repeatable for credit) Variable title workshop in communications.

Prerequisite: Doctoral standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

COMM 75096 INDIVIDUAL INVESTIGATION 1-6 Credit Hours

(Repeatable for credit) (Slashed with COMM 65096) Independent study of area or problem to be selected in consultation with graduate staff.

Prerequisite: Doctoral standing.

Schedule Type: Individual Investigation

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 75591 SEMINAR IN COMMUNICATION STUDIES 3 Credit Hours

(Repeatable for credit) (Slashed with COMM 65591) Seminar course in various research areas centered in communication studies.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMM 75652 THEORIES OF COMMUNICATION 3 Credit Hours

(Slashed with COMM 65652) Introduction to approaches in the study of human communication. Focuses on differing views of interaction from theory building and research generation perspective.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 75660 POLITICAL COMMUNICATION 3 Credit Hours

(Slashed with COMM 65660 and COMM 75660) An examination of political communication theory and research. Content includes approaches to political communication, role of the media in politics and analysis of political messages.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 75661 COMMUNICATION IN AN INFORMATION SOCIETY 3 Credit Hours

(Slashed with COMM 65661) Examines how the development and use of newer communication technologies have influenced how people communicate. Considers the evolution, social and psychological impact and culture of newer communication technologies (especially the Internet) and how research adapts to such technologies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 75665 PERSONAL AND MEDIATED COMMUNICATION 3 Credit Hours

(Slashed with COMM 65665) Examination of the interface of interpersonal and mediated communication in everyday life. Includes topics such as parasocial interaction, talk radio, TV co-viewing, cell phones, teleconferencing, computer-mediated relationships and media portrayals.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 75670 INTERPERSONAL COMMUNICATION 3 Credit Hours

(Slashed with COMM 65670) Survey of recent theoretical developments and research in interpersonal communication. Topics include relationship development, interaction, interpersonal traits, compliance, conversational analysis and research methods.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 75794 TEACHING OF COLLEGE COMMUNICATION 3 Credit Hours

(Repeatable for credit) (Slashed with COMM 65794) Training and experience in college teaching. Maximum of three hours applicable toward doctoral degree requirements.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 75891 SEMINAR IN ORGANIZATIONAL COMMUNICATION 3,4 Credit Hours

(Repeatable for credit) Theories and problems of human communication within, between and/or among formal organizations.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 3-4 other

Grade Mode: Standard Letter

COMM 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation for which registration in at least two semesters is required, first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours.

Prerequisite: Doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: COMM 80199; and doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 85000 FOUNDATIONS OF COMMUNICATION AND ADVOCACY 3 Credit Hours

(Slashed with COMM 65000) This course will introduce students to the foundation of scientific inquiry and its application to effective advocacy generally, and communication studies specifically. Research in the field of communication has been central to the study and practice of advocacy. Students will learn about the history of the field and representative communication perspectives and paradigms that have been central to the study and practice of advocacy in different contexts. In this course, students will explore how communication has played a role in advocacy and social change. Students will understand the root and the development of the field and thinking related to advocacy, and will evaluate, critique and synthesize communication literature.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 85070 SOCIAL INFLUENCE 3 Credit Hours

(Slashed with COMM 65070) This course explores theories, ethics, and strategies of social influence in contemporary society. Students discuss, and critique influential communication practices such as advocacy, interpersonal persuasion, product and services advertisements, social movements, and political messages.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMM 85098 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed their candidacy examination. Credits may be applied toward degree if school approves.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

COMM 85662 MEDIA EFFECTS 3 Credit Hours

(Slashed with COMM 65662) This course examines the uses and effects of mediated communication, media processes, how information flows through societies, and audience reactions to media messages. Attention is paid to diverse channels, audiences, and representations in media across a range of contexts.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 85675 COMMUNICATION, UNCERTAINTY AND PRIVACY MANAGEMENT 3 Credit Hours

(Slashed with COMM 65675) Communication, uncertainty and the management of private information examines theory and research about disclosure and uncertainty issues in communication in a variety of contexts. Course content examines disclosure and uncertainty management applications in relational contexts, health contexts, organizational contexts, and contexts involving human interaction occurring through technology.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 85677 RELATIONAL COMMUNICATION 3 Credit Hours

(Slashed with COMM 65677) Relational communication provides an exploration of communication theory and research about the interactions among individuals in personal relationships. Subtopics of the course include communication and the development, maintenance, and dissolution of personal relationships, relationships across the life span, individual differences in relationships and relational processes, qualities and outcomes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 85683 INTERGROUP COMMUNICATION 3 Credit Hours

(Slashed with COMM 65683) Overview of theory and research of communication between groups of individuals, including issues of discrimination, language, identity, social status, religion and demographics.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 85736 GLOBAL COMMUNICATION AND PUBLIC DIPLOMACY 3 Credit Hours

(Slashed with COMM 65736) Provides students with an in-depth understanding of public diplomacy as an instrument of foreign policy by considering both Western and non-Western paradigms, case studies and policies. By placing communication as a central organizational framework, it critically explores the theory and practice of public diplomacy from historical and contemporary perspectives. It examines how governments, businesses and non-governmental organizations engage with foreign publics with the aim of exerting influence and seeking favorable political, cultural and economic conditions. Drawing from existing and emerging trends, it emphasizes the centrality of communication in the different avenues of public diplomacy including international broadcasting, media technology, educational and cultural exchange and global sporting events. By framing public diplomacy as a double-edged communication phenomenon that can be deployed as a means of global understanding/advocacy as well as a tool for conflict/domination, the course prepares students to be critical participants and targets of the global mechanics of public influence.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMM 85851 ORGANIZATIONAL COMMUNICATION 3 Credit Hours

(Slashed with COMM 65851) Structure, methodology and application of communication theory in industrial and organizational settings.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMM 86501 HEALTH COMMUNICATION 3 Credit Hours

(Slashed with COMM 66501) This course provides an overview of the ways health communication can empower individuals and communities to improve their health and well-being. Students will learn about theoretical and practical tools for communicating about and enhancing health in personal, community, and healthcare contexts. In addition, the course explores how effective partnerships between researchers and community groups can be utilized in community-based participatory research.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

School of Information

Health Informatics (HI)

HI 41095 SPECIAL TOPICS IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit) Topics could include current or emerging issues in health informatics. Topics will be announced in schedule of classes. Offered irregularly as resources and opportunities permit.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

HI 41096 INDIVIDUAL INVESTIGATION IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation in areas not covered in the existing curriculum for baccalaureate level students at or above the junior level. In-progress (IP) mark permissible.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

HI 60401 HEALTH INFORMATICS MANAGEMENT 3 Credit Hours

(Slashed with HI 80401) This introductory course is a survey course that acts as a foundation for all other courses in the Health Informatics program. Basic concepts of Health Informatics are emphasized throughout. The course targets students who at some point in their career will oversee or have direct input on one of the highest expenditure areas for health care organizations—the planning, selection, deployment and management of electronic medical records (EMR), management decision-support and tracking systems (DSS) and other health information technologies (health IT).

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60402 LEGAL ISSUES IN HEALTH INFORMATICS 3 Credit Hours

(Slashed with HI 80402) This course provides students with an introduction to the fundamentals of law for Health Informatics and Information Management. Components of learning will include general legal principles and regulatory issues in the U.S. healthcare system. Primary topics will include ethical issues, consideration of state laws and the Federal Health Insurance Portability and Accountability Act (HIPAA), privacy and security rules. Through discussion board and writing assignments, students will demonstrate understanding of practical issues of health information access, its use and disclosure, and the legal and regulatory consequences associated with breaches of health information confidentiality and security. We will explore some of the special legal issues with electronic health records (EHR) and health information exchange; secondary uses of health information; compliance; and related ethics issues.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60403 HEALTH INFORMATION SYSTEMS 3 Credit Hours

(Slashed with HI 80403) Introduction to information systems and their applications in healthcare used for managerial and clinical support. Study the fundamentals of information systems, including Electronic Medical Records (EMR), information security. Understand the role of standardized codes, vocabularies and terminologies used in health information systems. Analysis of management and enterprise systems, identify the key elements to manage information resources effectively and the trends affecting the development of health information systems and networks.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60410 HEALTH RECORDS MANAGEMENT 3 Credit Hours

(Slashed with HI 80410) This course examines Health Information Management, the role of the HIM professional in the context of the health system and the role of the health record. The role of information management and documentation principles is essential to the successful application of technology and ensuring an effective health information infrastructure. The course discusses confidentiality, privacy, security, reliable standards, data integrity, quality, governance, and ethical principles that make health care information of use for organizations and individuals.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60411 CLINICAL ANALYTICS 3 Credit Hours

(Slashed with HI 80411) The use of well-defined and well-integrated clinical analytics throughout the healthcare value chain can be transformative. Through careful implementation of health analytics, hospitals can transform unwieldy amalgamations of data into information that can: improve patient outcomes, increase safety, enhance operational efficiency and support public health. Given the immense size of the data challenge, the distinctness and geographic spread of many healthcare-related activities, and the fact that so many healthcare activities are conducted by different entities which must interact with each other, there is really no other way to provide operations management tools necessary to deliver personalized medicine and to control spiraling costs. Since clinical analytics is an immature discipline, we carefully examine the practices of those institutions that are standard setters in the industry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60412 CLINICAL DECISION SUPPORT 3 Credit Hours

(Slashed with HI 80412) Provides a practical survey of clinical decision support systems that collect clinical data and enable the transition to clinical knowledge in real world applications intended to improve quality and safety of patient care. Students become familiar with the basic requirements for clinical decision support systems and the challenges associated with the development and deployment of new applications within the healthcare setting.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60413 CHANGE MANAGEMENT IN HEALTH INFORMATICS 3 Credit Hours

(Slashed with HI 80413) Designed to cover the process of change management in large healthcare organizations in light of current trends. Topics related to technology requirements, technology implementations, risk assessment and buy-in are among those covered.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60414 HUMAN FACTORS AND USABILITY IN HEALTH INFORMATICS 3 Credit Hours

(Slashed with HI 80414) Provides students with the foundational principles of usability and human factors as applied to safety and quality in health informatics technology. Course readings and materials review the concepts of human factors, usability and the cognitive consequences of health information technology on clinical performance and decision making. Attention is given to the role of mobile computing in health care, as well as information visualization.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60416 HEALTH INFORMATICS ISSUES: POLICY, POLITICS AND ETHICS 3 Credit Hours

(Slashed with HI 80416) This course uses a policy analysis lens to critically examine issues related to the use of information technology in healthcare from an ethical, political and regulatory perspective. Course's primary focus is on the United States, but international approaches are also be discussed. Legislation affecting health information technology area are examined, including the American Reinvestment and Recovery Act, HITECH section; Affordable Care Act and Health Insurance Portability and Accountability Act (HIPAA) of 1996. Topics and issues related to health informatics also are discussed, including structure of health administrative and delivery systems, assessment of population health, models of health care delivery, access and quality of care.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60417 PUBLIC HEALTH INFORMATICS 3 Credit Hours

(Slashed with HI 80417) Public Health Informatics (PHI) is an emergent, interdisciplinary field that focuses on the systematic management and dynamic application of information resources to enhance public health practice, education and research. As an emerging subset of Health Informatics, PHI is practiced by individuals, governmental and nongovernmental organizations at the international, national, regional, state and local levels. PHI deals with the collection and analysis of vital statistics data through surveillance; information creation; information storage and retrieval; visualization and graphics; dissemination; use of information for policy, decision making and trend tracking. The purpose of this course is to provide students with an introductory overview of the vast and dynamic field of PHI, including definitions, approaches, competencies, applications and informatics principles applied in public health settings.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60418 CLINICAL ANALYTICS II 3 Credit Hours

As the volume and complexity of health data continues to grow, analysis of that data requires more advanced tools to transform that data into meaningful information for clinical decisions. Not only is data from electronic medical records (EMRs) growing at a rapid pace but new types of data are available for analysis, such as, genomic data and patient generated data. These advanced analytic tools break down into three areas, each of which will be examined in this course: new data warehousing techniques to manage big data, new analytic tools including cognitive computing and predictive analytics and new ways to visualize the data. All of these techniques transform the raw data into use cases, such as, population health, precision medicine and clinical decision support using artificial intelligence and machine learning which will also be addressed in this course.

Prerequisite: HI 60411; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60419 CONSUMER HEALTH INFORMATICS 3 Credit Hours

This course examines the history and current trends in consumer health informatics, examining how patients and healthcare stakeholders manage health in the digital age. The evolution of health information technology has expanded the role of the patient to include being a consumer of healthcare, bringing with it more capabilities and responsibilities. The course will discuss health information and communication technologies and their influence on health care for patients, affecting health information seeking behaviors and expectations among multiple stakeholder groups. The course will discuss US and global perspectives for health information professionals serving health information needs in the community and in medical, academic, and public libraries.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60636 STANDARDIZED TERMINOLOGIES IN HEALTHCARE 3 Credit Hours

Introduce various types of standardized healthcare terminologies (controlled vocabularies) used in the Electronic Health Records (EHR) and Health information Exchange (HIE). Present the benefits of using standardized terminologies, as well as the interoperability and Meaningful Use (MU) requirements and standards. Explain the purposes, structures, components, and application of the most widely implemented standardized terminologies such as ICD, CPT, SNOMED CT, LOINC, RxNorm, ICNP and UMLS.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 60691 SEMINAR IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit) (Slashed with HI 80691) Advanced research by students who are qualified to examine problems of certain special areas in health informatics.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

HI 60693 VARIABLE TITLE WORKSHOP IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit). Intensive examination of special topics of interest to those involved in health informatics program. Maximum workshop credit for the M.S. degree in health informatics is 4 semester hours.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

HI 60792 ELECTIVE INTERNSHIP IN HEALTH INFORMATICS 2-3 Credit Hours

(Repeatable for credit) Supervised work experience in health informatics of a professional nature of not less than 100 clock hours (for 2 credit hours) or 150 clock hours (for 3 credit hours).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 6.66-10 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HI 61095 SPECIAL TOPICS IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit) (Slashed with HI 81095) Offered irregularly as resources and or opportunities permit. Topics could include current or emerging issues in health informatics. Specific topics are announced in the Schedule of Classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

HI 61096 INDIVIDUAL INVESTIGATION IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation in areas not covered by the existing curriculum for master's level students. Maximum 6 credit hours towards master's degree.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

HI 66092 MASTER'S INTERNSHIP IN HEALTH INFORMATICS 3 Credit Hours

Supervised work experience of an advanced professional nature that concentrates on developing skills in areas of health informatics and integrates their knowledge from all HI courses and experiences.

Prerequisite: HI 60401, HI 60402, HI 60403, HI 60410, HI 60411, HI 60414 and HI 60636; and minimum 3.000 overall GPA; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 10 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HI 66099 MASTER'S PROJECT IN HEALTH INFORMATICS 3 Credit Hours

Provides a means for the application of the knowledge, research and competencies learned through study in health informatics to the development of an information system, product, setting or service.

Prerequisite: HI 60401, HI 60402, HI 60403, HI 60410, HI 60411, HI 60414 and HI 60636; and minimum overall 3.000 GPA; and graduate standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HI 66198 MASTER'S RESEARCH PAPER IN HEALTH INFORMATICS 3 Credit Hours

Under the advisement of a faculty member, students will complete a research paper that serves as a culminating experience for the Health Informatics master's degree.

Prerequisite: HI 60401, HI 60402, HI 60403, HI 60410, HI 60411, HI 60414 and HI 60636; and minimum 3.000 overall GPA; and graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HI 66199 THESIS I 2-6 Credit Hours

(Repeatable for credit) Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: HI 60401, HI 60402, HI 60403, HI 60410, HI 60411, HI 60414 and HI 60636; and minimum 3.000 overall GPA; and graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HI 66299 THESIS II 2 Credit Hours

(Repeatable for credit) Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: HI 66199; and graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

HI 80401 HEALTH INFORMATICS MANAGEMENT 3 Credit Hours

(Slashed with HI 60401) This introductory course is a survey course that acts as a foundation for all other courses in the Health Informatics program. Basic concepts of Health Informatics are emphasized throughout. The course targets students who at some point in their career will oversee or have direct input on one of the highest expenditure areas for health care organizations—the planning, selection, deployment, and management of electronic medical records (EMR), management decision-support and tracking systems (DSS), and other health information technologies (health IT).

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80402 LEGAL ISSUES IN HEALTH INFORMATICS 3 Credit Hours

(Slashed with HI 60402) This course provides students with an introduction to the fundamentals of law for Health Informatics and Information Management. Components of the learning will include general legal principles and regulatory issues in the U.S. healthcare system. Primary topics will include ethical issues, consideration of state laws and the Federal Health Insurance Portability and Accountability Act (HIPAA), privacy and security rules. Through discussion board and writing assignments, students will demonstrate understanding of practical issues of health information access, its use and disclosure, and the legal and regulatory consequences associated with breaches of health information confidentiality and security. We will explore some of the special legal issues with electronic health records (EHR) and health information exchange; secondary uses of health information; compliance; and related ethics issues.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80403 HEALTH INFORMATION SYSTEMS 3 Credit Hours

(Slashed with HI 60403) Introduction to information systems and their applications in healthcare used for managerial and clinical support. Study the fundamentals of information systems, including Electronic Medical Records (EMR), information security. Understand the role of standardized codes, vocabularies and terminologies used in health information systems. Analysis of management and enterprise systems, identify the key elements to manage information resources effectively and the trends affecting the development of health information systems and networks.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80410 HEALTH RECORDS MANAGEMENT 3 Credit Hours

(Slashed with HI 60410) This course examines Health Information Management, the role of the HIM professional in the context of the health system and the role of the health record. The role of information management and documentation principles is essential to the successful application of technology and ensuring an effective health information infrastructure. The course discusses confidentiality, privacy, security, reliable standards, data integrity, quality, governance, and ethical principles that make health care information of use for organizations and individuals.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80411 CLINICAL ANALYTICS 3 Credit Hours

(Slashed with HI 60411) The use of well-defined and well integrated clinical analytics throughout the healthcare value chain can be transformative. Through careful implementation of health analytics, hospitals can transform unwieldy amalgamations of data into information that can: Improve patient outcomes, increase safety, enhance operational efficiency and support public health. Given the immense size of the data challenge, the distinctness and geographic spread of many healthcare-related activities, and the fact that so many healthcare activities are conducted by different entities which must interact with each other, there is really no other way to provide operations management tools necessary to deliver personalized medicine and to control spiraling costs. Since clinical analytics is an immature discipline, we carefully examine the practices of those institutions that are standard setters in the industry.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80412 CLINICAL DECISION SUPPORT 3 Credit Hours

(Slashed with HI 60412) Provides a practical survey of clinical decision support systems that collect clinical data and enable the transition to clinical knowledge in real world applications intended to improve quality and safety of patient care. Students become familiar with the basic requirements for clinical decision support systems and the challenges associated with the development and deployment of new applications within the healthcare setting.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80413 CHANGE MANAGEMENT IN HEALTH INFORMATICS 3 Credit Hours

(Slashed with HI 60413) Designed to cover the process of change management in large healthcare organizations in light of current trends. Topics related to technology requirements, technology implementations, risk assessment, end user computing and buy-in are among those covered.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80414 HUMAN FACTORS AND USABILITY IN HEALTH INFORMATICS 3 Credit Hours

(Slashed with HI 60414) Provides students with the foundational principles of usability and human factors as applied to safety and quality in health informatics technology. Course readings and materials review the concepts of human factors, usability, and the cognitive consequences of health information technology on clinical performance and decision making. Attention is given to the role of mobile computing in health care, as well as information visualization.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80416 HEALTH INFORMATICS ISSUES: POLICY, POLITICS AND ETHICS 3 Credit Hours

(Slashed with HI 60416) This course uses a policy analysis lens to critically examine issues related to the use of information technology in healthcare from an ethical, political and regulatory perspective. Course's primary focus is on the United States, but international approaches are also be discussed. Legislation affecting health information technology area are examined, including the American Reinvestment and Recovery Act, HITECH section; Affordable Care Act and Health Insurance Portability and Accountability Act (HIPAA) of 1996. Topics and issues related to health informatics also are discussed, including structure of health administrative and delivery systems, assessment of population health, models of health care delivery, access and quality of care.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80417 PUBLIC HEALTH INFORMATICS 3 Credit Hours

(Slashed with HI 60417) Public Health Informatics (PHI) is an emergent, interdisciplinary field that focuses on the systematic management and dynamic application of information resources to enhance public health practice, education and research. As an emerging subset of Health Informatics, PHI is practiced by individuals, governmental and nongovernmental organizations at the international, national, regional, state and local levels. PHI deals with the collection and analysis of vital statistics data through surveillance; information creation; information storage and retrieval; visualization and graphics; dissemination; use of information for policy, decision making and trend tracking. The purpose of this course is to provide students with an introductory overview of the vast and dynamic field of PHI, including definitions, approaches, competencies, applications and informatics principles applied in public health settings.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

HI 80691 SEMINAR IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit) (Slashed with HI 60691) Advanced research by students who are qualified to examine problems of certain special areas in health informatics.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

HI 81095 SPECIAL TOPICS IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit) (Slashed with HI 61095) Offered irregularly as resources and or opportunities permit. Topics could include current or emerging issues in health informatics. Specific topics are announced in the Schedule of Classes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

HI 81096 INDIVIDUAL INVESTIGATION IN HEALTH INFORMATICS 1-3 Credit Hours

(Repeatable for credit). Research or individual investigation in areas not covered by the existing curriculum for doctoral level students. Deliverables determined with instructor of record.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

Knowledge Management (KM)**KM 41095 SPECIAL TOPICS IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours**

(Repeatable for credit) Topics could include current or emerging issues in knowledge management. Topics will be announced in schedule of classes. Offered irregularly as resources and opportunities permit.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

KM 41096 INDIVIDUAL INVESTIGATION IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation in areas not covered in the existing curriculum for baccalaureate level students at or above the junior level.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

KM 60301 FOUNDATIONAL PRINCIPLES OF KNOWLEDGE MANAGEMENT 3 Credit Hours

(Slashed with KM 80301) An introduction to the field of Knowledge Management (KM) with particular attention given to KM practices in various environments such as business, government, the military, non-profits, education, communities and societies. This course will provide students with an understanding of the nature of knowledge, core KM principles, KM processes, the KM life cycle, KM social and technological tools, KM's effects and effectiveness, KM ethics, KM strategy and significant KM issues such as culture, and innovation. Covers principles of collection versus connection as to knowledge.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 60302 DESIGNING AND IMPLEMENTING KNOWLEDGE MANAGEMENT IN THE WORKPLACE 3 Credit Hours

(Slashed with KM 80302) This course will explore how to effectively create a Knowledge Management (KM) program, including learning about factors that can lead to either success or failure. Two broad areas of focus will include purposeful collaboration and effective networking. This course will cover a complete KM program methodology starting from the initial steps to form a KM program and how to create an implementation plan to give any organization the greatest chance to go from strategy to action to sustainability.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 60303 KNOWLEDGE METRICS AND ASSESSMENT 3 Credit Hours

(Slashed with KM 80303) Learn how to design, build, and operate a measurement strategy that evaluates the effectiveness of a Knowledge Management (KM) program and its components in achieving business objectives. The course provides an overview of overall organization measurement approaches (e.g., focus groups, interviews, surveys) and applies them in a KM context (e.g., KM Maturity Model, Communities of Practice, Search, Expert Finding). Students will also learn how to tailor their presentation of resulting metrics for specific audiences (KM practitioner, business leader, etc.). Students will apply what they have learned to develop a measurement strategy using case studies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 60305 COMMUNITIES OF PRACTICE 3 Credit Hours

(Slashed with KM 80305) This course will explore communities and community management from a practical perspective. It will enable students to learn how knowledge management leaders launch and lead communities of practice programs as part of their initiatives. Students will learn how community managers do their jobs successfully through applying proven practices for creating and cultivating communities. The course exposes students to the fundamental concepts and principles of communities of practice and includes real life case studies. Students will complete a course project pertaining to community of practice evaluation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 60306 THOUGHT LEADERSHIP AND CAREER DEVELOPMENT IN KNOWLEDGE MANAGEMENT 1 Credit Hour

(Slashed with KM 80306) Students will develop thought leadership strategies and innovative ideas to build their professional agenda and guide career planning. Students will review their knowledge of business from a knowledge management perspective and identify related career path options. Students will share their career options to help determine their M.S. program plan.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

KM 60308 EMERGING TECHNOLOGIES IN KNOWLEDGE MANAGEMENT 3 Credit Hours

(Slashed with KM 80308) Explores the various emerging digital technologies and their application to the digital workplace that complement the human aspects of knowledge management. Work process digitalization is accelerating and artificial intelligence and mixed reality devices are critical technologies that will allow knowledge management professionals to deliver instant, relevant knowledge in the context of the work for both field and knowledge workers. Includes real life case studies of pioneers of emerging digital technologies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 60312 STRATEGIC INTELLIGENCE 3 Credit Hours

This course is an introduction to strategic intelligence, consisting of competitive and business intelligence. Strategic intelligence is both art and science, used for critical decision-making, planning and response. Businesses and governments require effective intelligence programs, processes and tools, to track competitors, markets and trends by acquiring, organizing, analyzing and disseminating intelligence. Students will learn about the intelligence cycle, needs analysis and intelligence analysis resources, techniques and technologies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 60316 ORGANIZATIONAL CULTURE ASSESSMENT 3 Credit Hours

(Slashed with KM 80316) In this course, students will examine different types of cultures and how each type influences a knowledge organization - how culture influences the way knowledge workers work, how they make decisions and how they behave, the internal cultures of groups and communities, the cultural attributes of knowledge workers which may impact their knowledge behaviors. Organizational cultures of multicultural, global and virtual organizations are covered in this course. Students conduct an organizational culture assessment.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 60370 SEMANTIC ANALYSIS METHODS AND TECHNOLOGIES 3 Credit Hours

(Slashed with KM 80370) Introduces students to the practical contexts, methods and tools associated with semantic analysis. Focuses on early life cycle aspects of semantics, including identification and modeling of semantic problems, design of semantic solutions, and the identification and implementation of appropriate semantic technologies. Covers natural language processing, rule-based and grammar based concept extraction, rule-based and dynamic classification and automated summarization. Students work with a variety of semantic technologies.

Prerequisite: BA 64036 or EMAT 64210 or KM 60301; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 60691 SEMINAR IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) (Slashed with KM 80691) Advanced research by students who are qualified to examine problems of certain special areas in knowledge management.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

KM 60693 VARIABLE TITLE WORKSHOP IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) Intensive examination of special topics of interest to those involved in knowledge management.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

KM 61095 SPECIAL TOPICS IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) (Slashed with KM 81095) Offered irregularly as resources and or opportunities permit. Topics could include current or emerging issues in knowledge management. Specific topics are announced in the Schedule of Classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

KM 61096 INDIVIDUAL INVESTIGATION IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation in areas not covered in the existing curriculum for master's level students. Maximum credit towards master's degree: 6 hours.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

KM 66092 MASTER'S INTERNSHIP IN KNOWLEDGE MANAGEMENT 3 Credit Hours

Supervised work experience of an advanced professional nature that concentrates on developing skills in areas of knowledge management and integrates their knowledge from all KM courses and experiences.

Prerequisite: KM 60301, KM 60302, KM 60306, LIS 60636 and MGMT 64158; and a minimum 3.000 overall GPA; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

KM 66099 MASTER'S PROJECT IN KNOWLEDGE MANAGEMENT 3 Credit Hours

Provides a means for the application of the knowledge, research and competencies learned through study in knowledge management to the development of an information system, product, setting or service.

Prerequisite: KM 60301, KM 60302, KM 60306, LIS 60636 and MGMT 64158; and minimum 3.000 overall GPA; and graduate standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

KM 66198 MASTER'S RESEARCH PAPER IN KNOWLEDGE MANAGEMENT 3 Credit Hours

Under the advisement of a faculty member, students will complete a research paper that serves as a culminating experience for the Knowledge Management master's degree.

Prerequisite: KM 60301, KM 60302, KM 60306, LIS 60636 and MGMT 64158; and minimum 3.000 overall GPA; and graduate standing; and special approval.

Schedule Type: Master's Project

Contact Hours: 9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

KM 66199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: KM 60301, KM 60302, KM 60306, LIS 60636; MGMT 64158; and minimum 3.000 overall GPA; and graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

KM 66299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: KM 66199; and graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

KM 80301 FOUNDATIONAL PRINCIPLES OF KNOWLEDGE MANAGEMENT 3 Credit Hours

(Slashed with KM 60301) An introduction to the field of Knowledge Management (KM) with particular attention given to KM practices in various environments such as business, government, the military, non-profits, education, communities, and societies. This course will provide students with an understanding of the nature of knowledge, core KM principles, KM processes, the KM life cycle, KM social and technological tools, KM's effects and effectiveness, KM ethics, KM strategy, and significant KM issues such as culture, and innovation. Covers principles of collection versus connection as to knowledge.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 80302 DESIGNING AND IMPLEMENTING KNOWLEDGE MANAGEMENT IN THE WORKPLACE 3 Credit Hours

(Slashed with KM 60302) This course will explore how to effectively create a Knowledge Management (KM) program, including learning about factors that can lead to either success or failure. Two broad areas of focus will include purposeful collaboration and effective networking. This course will cover a complete KM program methodology starting from the initial steps to form a KM program and how to create an implementation plan to give any organization the greatest chance to go from strategy to action to sustainability.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 80303 KNOWLEDGE METRICS AND ASSESSMENT 3 Credit Hours

(Slashed with KM 60303) Learn how to design, build, and operate a measurement strategy that evaluates the effectiveness of a Knowledge Management (KM) program and its components in achieving business objectives. The course provides an overview of overall organization measurement approaches (e.g., focus groups, interviews, surveys) and applies them in a KM context (e.g., KM Maturity Model, Communities of Practice, Search, Expert Finding). Students will also learn how to tailor their presentation of resulting metrics for specific audiences (KM practitioner, business leader, etc.). Students will apply what they have learned to develop a measurement strategy using case studies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 80305 COMMUNITIES OF PRACTICE 3 Credit Hours

(Slashed with KM 60305) This course will explore communities and community management from a practical perspective. It will enable students to learn how knowledge management leaders launch and lead communities of practice programs as part of their initiatives. Students will learn how community managers do their jobs successfully through applying proven practices for creating and cultivating communities. The course exposes students to the fundamental concepts and principles of communities of practice, and includes real life case studies. Students will complete a course project pertaining to community of practice evaluation.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 80306 THOUGHT LEADERSHIP AND CAREER DEVELOPMENT IN KNOWLEDGE MANAGEMENT 1 Credit Hour

(Slashed with KM 60306) Students will develop thought leadership strategies and innovative ideas to build their professional agenda and guide career planning. Students will review their knowledge of business from a knowledge management perspective and identify related career path options.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

KM 80308 EMERGING TECHNOLOGIES IN KNOWLEDGE MANAGEMENT 3 Credit Hours

(Slashed with KM 60308) Explores the various emerging digital technologies and their application to the digital workplace that complement the human aspects of knowledge management. Work process digitalization is accelerating and artificial intelligence and mixed reality devices are critical technologies that will allow knowledge management professionals to deliver instant, relevant knowledge in the context of the work for both field and knowledge workers. Includes real life case studies of pioneers of emerging digital technologies.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 80316 ORGANIZATIONAL CULTURE ASSESSMENT 3 Credit Hours

(Slashed with KM 60316) In this course, students will examine different types of cultures and how each type influences a knowledge organization - how culture influences the way knowledge workers work, how they make decisions and how they behave, the internal cultures of groups and communities, the cultural attributes of knowledge workers which may impact their knowledge behaviors. Organizational cultures of multicultural, global and virtual organizations are covered in this course. Students conduct an organizational culture assessment.

Prerequisite: KM 80301; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 80370 SEMANTIC ANALYSIS METHODS AND TECHNOLOGIES 3 Credit Hours

(Slashed with KM 60370) Introduces students to the practical contexts, methods and tools associated with semantic analysis. Focuses on early life cycle aspects of semantics, including identification and modeling of semantic problems, design of semantic solutions and the identification and implementation of appropriate semantic technologies. Covers natural language processing, rule-based and grammar based concept extraction, rule-based and dynamic classification and automated summarization. Students work with a variety of semantic technologies.

Prerequisite: KM 80301; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

KM 80691 SEMINAR IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) (Slashed with KM 60691) Advanced research by students who are qualified to examine problems of certain special areas in knowledge management.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

KM 81095 SPECIAL TOPICS IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) (Slashed with KM 61095) Offered irregularly as resources and or opportunities permit. Topics could include current or emerging issues in knowledge management. Specific topics are announced in the Schedule of Classes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

KM 81096 INDIVIDUAL INVESTIGATION IN KNOWLEDGE MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation in areas not covered by the existing curriculum for doctoral level students.

Deliverables determined with instructor of record.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

Library and Information Science (LIS)**LIS 20600 APPLIED DATA AND INFORMATION FUNDAMENTALS 3 Credit Hours**

This course provides an introduction to data science from an information science perspective. Key elements include the role and impact of data on people and society; the disciplinary and interdisciplinary nature of data science; the information science approach to data in an applied area; the stages of data in the data lifecycle; basic knowledge and skills associated with various stages of the data lifecycle; data-related standards, principles, and best practices to make data more accessible, discoverable, retrievable, and usable; and human-centered, ethical, and contextual considerations of data.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 30010 INFORMATION FLUENCY IN THE WORKPLACE AND BEYOND 3 Credit Hours

This course is designed to help students understand, navigate and become full participants in information society. It goes beyond basic library and internet skills to highlight issues specific to professional information environments. Emphasis is placed on acknowledging the contextual, dynamic and fluid nature of information to further understand it as a process, commodity and entity. Students will examine and critically reflect on the value of using multiple information resources and emerging technologies to fill gaps in academic, professional and personal information contexts.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 40645 DATABASE FUNDAMENTALS FOR INFORMATION PROFESSIONALS 3 Credit Hours

(Slashed with LIS 50645) Characteristics and concepts of database; different types of database models; conceptual database design and implementation; the relational database model and its application in practice for information professionals: key issues, principles, and techniques; data storage, processing, retrieval, analysis, and reporting.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 40646 RESEARCH DATA MANAGEMENT 3 Credit Hours

(Slashed with LIS 50646) This course introduces students to current and historical issues and practice in the creation, management, curation, access and reuse of research data. Other related topics to be addressed include systems and standards for collecting, curating and preserving research data across different disciplines and contexts. Students will develop the skills to create actionable data management plans, to support sustainable projects and to work with researchers to build, access and maintain data infrastructures. Students will have the opportunity to apply some basic principles in their respective disciplinary interests.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 40647 INTRODUCTION TO DIGITAL HUMANITIES 3 Credit Hours

(Slashed with LIS 50647) Provides students with a greater understanding of how new forms of knowledge production and representation, computational thinking and applications of various information and digital technologies have impacted research and pedagogy in humanities disciplines. Special attention is given to how information professionals can support and promote digital humanities work. Students have the opportunity to explore, apply and critique the technologies, tools, methods and values of the digital humanities field.

Pre/corequisite: LIS 40645.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 40693 VARIABLE TITLE WORKSHOP IN INFORMATION STUDIES 1-3 Credit Hours

(Repeatable for credit) Intensive examination of special topics of interest in information studies.

Prerequisite: Junior or senior standing.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

LIS 41095 SPECIAL TOPICS IN INFORMATION STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with LIS 51095) Topics will be announced in schedule of classes. Offered irregularly as resources and opportunities permit.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

LIS 50645 DATABASE FUNDAMENTALS FOR INFORMATION PROFESSIONALS 3 Credit Hours

(Slashed with LIS 40645) Characteristics and concepts of database; different types of database models; conceptual database design and implementation; the relational database model and its application in practice for information professionals: key issues, principles, and techniques; data storage, processing, retrieval, analysis, and reporting.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 50646 RESEARCH DATA MANAGEMENT 3 Credit Hours

(Slashed with LIS 40646) This course introduces students to current and historical issues and practice in the creation, management, curation, access and reuse of research data. Other related topics to be addressed include systems and standards for collecting, curating and preserving research data across different disciplines and contexts. Students will develop the skills to create actionable data management plans, to support sustainable projects and to work with researchers to build, access and maintain data infrastructures. Students will have the opportunity to apply some basic principles in their respective disciplinary interests.

Prerequisite: LIS 60510; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 50647 INTRODUCTION TO DIGITAL HUMANITIES 3 Credit Hours

(Slashed with LIS 40647) Provides students with a greater understanding of how new forms of knowledge production and representation, computational thinking and applications of various information and digital technologies have impacted research and pedagogy in humanities disciplines. Special attention is given to how information professionals can support and promote digital humanities work. Students have the opportunity to explore, apply and critique the technologies, tools, methods and values of the digital humanities field.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 50693 VARIABLE TITLE WORKSHOP IN INFORMATION STUDIES 1-3 Credit Hours

(Repeatable for credit) Maximum workshop credit accepted for M.L.I.S. degree is 4 credit hours. Intensive examination of special topics of interest to current M.L.I.S. students and practicing librarians, archivists and museum studies professionals.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

LIS 51095 SPECIAL TOPICS IN INFORMATION STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with LIS 41095) Topics will be announced in schedule of classes. Offered irregularly as resources and opportunities permit.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

LIS 60020 INFORMATION ORGANIZATION 3 Credit Hours

Introduction to the theory and practice of information organization and retrieval in various information environments. Familiarity with principles, standards, tools and current systems relating to organization of information and retrieval. Exploration of supported information system functions such as searching, browsing, and navigation. Assessment and evaluation of information organization and retrieval systems.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60030 PEOPLE IN THE INFORMATION ECOLOGY 3 Credit Hours

Takes a user-centered approach in exploring the information needs and behaviors of people (as individuals and in groups, communities, and institutions) in relation to the larger information ecology that surrounds them. Topics covered include an overview of information ecology; the user-centered paradigm; major information needs and information behavior theories, models, and findings; the landscape of information sources and services for users; factors that influence people's information needs and behaviors; and user empowerment, information ethics, information fluency, and related issues.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60040 INFORMATION INSTITUTIONS AND PROFESSIONS 3 Credit Hours

Examines the political, social, economic, and technical forces that influence the larger environments in which information institutions are situated. This course explores characteristics of the environments in which information professionals may work, including but not limited to academic, school, public, and special libraries, museums, archives, cultural heritage institutions, government organizations, corporations across all industries, and information creators and publishers. The course explores characteristics of the information profession including core values and principles, emerging professions, and understanding possible futures in profession, and explores ideas of organizational behavior in information institutions that operate across the institution as a whole, within groups, and within individuals in the organization.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60050 RESEARCH AND ASSESSMENT IN LIBRARY AND INFORMATION SCIENCE 3 Credit Hours

Focuses on quantitative and qualitative research methods applicable to information settings and environments. Explores research design, data analysis, proposal development, and ethical issues.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60099 MASTER'S PORTFOLIO IN LIBRARY AND INFORMATION SCIENCE 1 Credit Hour

Completed in a student's last semester. It will include the creation of an electronic portfolio to represent and self-evaluate the student's experience throughout the MLIS program, considering program learning outcomes and preparation for a career in the field of library and information science.

Prerequisite: LIS 60030; and LIS 60020 or LIS 60624; and LIS 60040 or LIS 60607; and graduate standing.

Pre/corequisite: 27 credit hours of graduate coursework.

Schedule Type: Lecture, Project or Capstone

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory-IP

LIS 60199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester, distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

LIS 60299 THESIS II 2 Credit Hours

(Repeatable for credit) Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: LIS 60199; and graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

LIS 60401 LEADERSHIP IN LIBRARIES AND INFORMATION CENTERS 3 Credit Hours

This course will review the concept of leadership while delving into its relationship to and differences from management, and its application in the personal and professional lives of information professionals. Beginning with an examination of personal leadership styles, the course will review the major philosophies of leadership thought that affect the library and information fields, the role of mentors, team building, project management, the moral and ethical responsibilities of leading others and leading through change in the information world.

Prerequisite: LIS 60040; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60510 DIGITAL TECHNOLOGIES I: DATA FUNDAMENTALS 1 Credit Hour

The first of three one-credit courses in digital technologies, this course presents foundational knowledge on the principles that underlie digital resources and services in modern information society, with specific emphasis on data representation, encoding, formatting, and data modeling.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60511 DIGITAL TECHNOLOGIES II: INTERNET FUNDAMENTALS 1 Credit Hour

The second of three one-credit courses in digital technologies, this course presents foundational knowledge on the principles that underlie digital resources and services in modern information society, with specific emphasis on online information systems, the Internet, and data security.

Prerequisite: Graduate standing.

Pre/corequisite: LIS 60510.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60512 DIGITAL TECHNOLOGIES III: INFORMATION SYSTEMS FUNDAMENTALS 1 Credit Hour

The third of three one-credit courses in digital technologies, this course presents foundational knowledge on the principles that underlie digital resources and services in modern information society, with specific emphasis on Web-based information applications, programming logic, Linked Data, and the interpretation of data.

Prerequisite: Graduate standing.

Pre/corequisite: LIS 60511.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60513 ARTIFICIAL INTELLIGENCE, SOCIETY AND ETHICS 3 Credit Hours

This course examines the ethical and societal implications of advances in artificial intelligence (AI). This course introduces cutting-edge research on topics such as human-AI interactions, fairness and bias, transparency and explainability, machine and natural language AI systems (including large language models (LLMs)), and ethical guidelines and frameworks for responsible AI design and application. In the context of real-world applications, students will critically analyze existing AI systems to cultivate the analytical skills necessary for applying AI technologies in ways that are ethical, human-centered and socially and environmentally responsible.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60601 INFORMATION SOURCES AND REFERENCE SERVICES 3 Credit Hours

Introduction to use and evaluation of basic sources of reference information, in-house and online; reference interview and question-negotiation techniques; administration of reference and information services.

Prerequisite: LIS 60030; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60602 RESOURCE DESCRIPTION AND ACCESS 3 Credit Hours

Theoretical foundation, principles, core concepts, and practical application of current standards and conceptual models for the description (descriptive cataloging) of a variety of resources in information institutions. Topics include history and principles of descriptive cataloging standards, best practices documentation, resource discovery, authority work, encoding standards and structures, linked data, ethical issues, as well as current topics in resource description and access, such as emerging technologies and future directions.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60603 SUBJECT ANALYSIS, REPRESENTATION AND ACCESS 3 Credit Hours

(Slashed with LIS 80603) The course focuses on the theories, principles, and practices of subject analysis of the intellectual content of information resources and its representation through controlled vocabularies and classification. It covers fundamental concepts of aboutness, vocabulary control, classification theory, ethical considerations, and the theoretical foundations, structure, and the application of major subject vocabularies (LCSH), classification schemes (DDC and LCC), and other knowledge organization systems, including genre/form and named entity management. The course also includes examinations of authority control for subject headings.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60607 SCHOOL LIBRARY MANAGEMENT 3 Credit Hours

School Library Management focuses on theoretical and practical aspects of school library management. This course provides a foundation for the completion of a successful culminating experience practicum and licensure exam for School Library Media licensure K-12. The course content delivery, exploration activities and completion of assignments have been aligned with state of Ohio and the American Association of School Librarians national school library media standards and guidelines. This course includes 10 hours of practical experience.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60608 THE PUBLIC LIBRARY 3 Credit Hours

Analysis of the historical, sociopolitical, technological, fiscal and organizational factors affecting American public librarianship. Includes evaluation, planning, networking, funding, automation, buildings and censorship.

Prerequisite: LIS 60040; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60609 MARKETING THE LIBRARY 3 Credit Hours

Introduction to the theory and practice of marketing the library. Topics include the evaluation of customer needs, the marketing mix, merchandising, public relations, relationship marketing, and the design and development of a marketing plan for libraries.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60612 LIBRARY MATERIALS AND SERVICES FOR ADULTS 3 Credit Hours

Recent investigations of group and individual reading habits; advisory services in various types of libraries; library programs for adult education; projection of library materials toward community.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60613 INFORMATION NEEDS, SEEKING AND USE 3 Credit Hours

(Slashed with LIS 80613) Surveys theories and research related to people's interactions with information. The theories covered include information context and situation, information needs, information seeking, exploration of information sources, communication and collaboration in the information search process, information use, and other interactions among people, information, and information systems.

Prerequisite: LIS 60030; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60614 COLLECTION MANAGEMENT IN LIBRARIES 3 Credit Hours

Principles of collection development and management for public, academic, school and special libraries, including maintenance (weeding and analysis), needs assessment, acquisitions, e-resources, licensing, and preservation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60615 THE ACADEMIC LIBRARY 3 Credit Hours

Governance, administration and services of libraries in institutions of postsecondary education.

Prerequisite: LIS 60040; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60616 THE SPECIAL LIBRARY 3 Credit Hours

The formation of special libraries. Libraries in special subject fields and in organizations: corporations, government agencies, hospitals, etc. Internal organization and administration collection development and services.

Prerequisite: LIS 60040; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60617 INFORMATION LITERACY FOR YOUTH 3 Credit Hours

This course is intended to guide graduate students in creating and providing information literacy instruction for youth in school and public libraries. This course includes 10 hours of practical experience.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60618 INFORMATION LITERACY INITIATIVES AND INSTRUCTION 3 Credit Hours

Information literacy is an essential competency needed to navigate an information society. This course explores how to create and deliver effective information literacy instruction to post-secondary students and adult populations. Topics include a comparison of information literacy standards and frameworks; learning theories focused on adult learning; planning, creating, delivering, and assessing IL instruction activities; and developing and managing IL instruction in collaboration with key stakeholders.

Prerequisite: LIS 60030; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60620 HEALTH INFORMATION RESOURCES 3 Credit Hours

Identifies print and electronic sources of health information with emphasis on electronic sources. Medical patient and consumer health information is presented. This course is designed for the health educator, librarian, nurse or other health care professional.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60624 CATALOGING FOR SCHOOL LIBRARIES 3 Credit Hours

Organization and administration of print and non-print materials in school libraries. Application of appropriate descriptive cataloging rules, subject headings and classification policies for children's, teen and educational materials K-12.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60625 ENGAGING YOUNG CHILDREN AND FAMILIES 3 Credit Hours

Selection and utilization of materials in relation to needs, abilities and interests of the young child.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60626 ENGAGING TEENS 3 Credit Hours

Selection and utilization of books and materials in relation to needs, abilities and interests of teens.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60627 ART AND STORY: THE STUDY OF CHILDREN'S PICTUREBOOKS 3 Credit Hours

(Slashed with LIS 80627) This course engages students in the study and application of art and story in children's picturebooks through the lenses of book history, publishing studies, children's book illustration and storytelling, visual literacy and visual storytelling. Picture book readers are also studied, from professional readers, like librarians and book reviewers, to picturebook consumers.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60629 ENGAGING SCHOOL-AGE CHILDREN 3 Credit Hours

Selection and utilization of materials in relation to needs, abilities and interests of school age children.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60630 REFERENCE SOURCES AND SERVICES FOR YOUTH 3 Credit Hours

Organization and administration of information sources and information services for children and young adults (K-12). Evaluation selection and utilization of print and electronic sources.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60631 INTRODUCTION TO DIGITAL PRESERVATION 3 Credit Hours

(Slashed with LIS 80631) Approaches and standards for preserving and maintaining access to digitized and born-digital text, images, data, audiovisual information, and web resources. Topics include longevity of digital media, selection for preservation; formats and strategies for preservation; preservation metadata; integrity and authenticity of digital materials; establishment and certification of trustworthy digital repositories; risk management; and policy development.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60633 DIGITAL CURATION 3 Credit Hours

(Slashed with LIS 80633) Management and preservation of digital objects and records throughout their lifecycle. Essential technologies and standards for building and maintaining robust, trusted digital repositories. Emphasizes the use and reuse of scholarly data, business and government records, cultural heritage materials, and other digital objects to create resources supporting communities of practice in their work.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60635 CULTURAL HERITAGE INFORMATICS 3 Credit Hours

(Slashed with LIS 80635) Cultural heritage informatics brings a comprehensive, cross-disciplinary approach to supporting the entire lifecycle of cultural heritage information and documentation procedures for the benefit of the preservation, study, and promotion of cultural heritage. The course covers methods of creating descriptions for cultural objects, as well as organizing, delivering, and presenting the cultural heritage (tangible, intangible, and digital) resources in the digital age. The course aims to prepare students for careers focusing on or transcending libraries, archives, museums (LAMs), historical societies, and other cultural institutions by introducing them the methodologies and technologies commonly used in cultural heritage informatics and can be broadly implemented in LAMs.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60636 KNOWLEDGE ORGANIZATION STRUCTURES, SYSTEMS AND SERVICES 3 Credit Hours

(Slashed with LIS 80636) Introduction to various types of knowledge organization structures, services, and systems (KOS) used in the networked environment. Understanding of the functional philosophical, logical and linguistic fundamentals of KOS. Explanation of design options, features of KOS, and procedures to be used in the taxonomy, thesaurus and ontology construction. Analysis and evaluation of KOS. Issues related to online display, visualization, interoperability and internationalization.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60637 METADATA ARCHITECTURE AND IMPLEMENTATION 3 Credit Hours

(Slashed with LIS 80637) Principles and theories of metadata development in the digital environment. Main focus is given to the design and applications of metadata schemas for distinct domains and information communities, issues in metadata interoperability, vocabulary control, quality control and evaluation. Examination of international standards, activities and projects with the use of case study approach.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60649 INDEXING AND ABSTRACTING 3 Credit Hours

(Slashed with LIS 80649) Principles and methods of manual and computerized indexing and abstracting applied to I & A databases, back of book indexes website indexes and sitemaps. Techniques of constructing indexing languages using international standards. Theory and practice of index design for specific formats and subjects. Automation and I & A services in networked environments.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60650 INFORMATION POLICY 3 Credit Hours

Political, economic, cultural and legal issues regarding the production, distribution and use of information (print, electronic and Web). Policy-making process, standards and protocols, intellectual property, information economy, impact of computers on access and policy, privacy rights, transnational flow of information and the Internet and the World Wide Web.

Prerequisite: LIS 60040; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60651 DIGITAL IMAGE PROCESSING AND COLLECTION MANAGEMENT 3 Credit Hours

This course is designed to introduce students to the fundamental concepts, terminology, techniques and applications of digital imaging as they relate to the development of digital image collections depicting works found in museum collections, archives and special collections in libraries. The students will acquire knowledge and skills necessary to design, create, and manage digital images of text, graphics, slides and reproductions of 3-D objects. They will also be introduced to the principles and issues that pertain to the creation and distribution of digital image archives via image databases and the Web environment.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60652 FOUNDATIONS OF RECORDKEEPING IN SOCIETY 3 Credit Hours

An introduction to the core principles and practices of recordkeeping and the multiple and complex roles records and archives play in identity, evidence, transparency, memory, accountability, equity, representation and trust in society. This course covers historical and contemporary recordkeeping contexts related to individuals, family, community, organization, corporate, academia and government, as well as traditional, nontextual and digital formats of records and archives.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60654 PRESERVATION AND CONSERVATION OF HERITAGE MATERIALS 3 Credit Hours

Types and causes of deterioration of various kinds of library, archival, and museum collections; storage and preventive care, preservation through photographic reproduction and digital conversion, and conservation of rare materials.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60655 COPYRIGHT: UNDERSTANDING USER RIGHTS AND RESPONSIBILITIES 3 Credit Hours

Exploration of advanced copyright topics such as mass digitization, creative arts and other issues in fair use, library, archive and educational uses including the TEACH Act, digital first sale rights, Digital Millennium Copyright Act, and an introduction to copyright reform.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60657 THEORY AND METHODS OF ARCHIVAL ACQUISITION, SELECTION AND APPRAISAL 3 Credit Hours

(Slashed with LIS 80657) This course provides a comprehensive introduction to the theory, methods and traditions employed by records professionals to form and shape archives as societal memory. This course focusses primarily on acquisition, selection, documentation and appraisal theory and methods. Students will also examine contemporary records frameworks and approaches and issues faced by archivists, special collections librarians and manuscript curators employed to identify, evaluate, acquire and dispose of records.

Prerequisite: LIS 60652; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60658 THEORY AND PRACTICE OF ARCHIVAL DESCRIPTION 3 Credit Hours

This course will introduce students to the theory and practice of archival description, including 1) principles of provenance and original order, 2) hierarchical arrangement and description; 3) standards central to archival description including Describing Archives: A Content Standard (DACS), Machine Readable Cataloging (MARC), and Encoded Archival Description (EAD); 4) archival authority work, including Encoded Archival Context (EAC); and 5) subject access for archival materials. Other related topics to be addressed include approaches to description of born-digital archival records, management of description programs, design of information systems for archival description, project management and cost analyses, and community-driven archival description such as tagging and reparative description.

Prerequisite: LIS 60020; and graduate standing.

Pre/corequisite: LIS 60652.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60659 INTRODUCTION TO AUDIOVISUAL ARCHIVING 1 Credit Hour

Introduction to the issues and challenges of preserving and providing access to archival moving image and sound material. Topics include basics of media care and handling; methods and approaches to preservation and digitization; and appraisal, description and access methods.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60665 RARE BOOKS AND SPECIAL COLLECTIONS 3 Credit Hours

Study of the theory and practice of rare books and special collections librarianship. Topics to be addressed include identification and description of collections, history of the book, valuation, collection development, preservation, security, access and discovery, promotion and outreach, and administration of collections and resources.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60668 INTERNATIONAL LIBRARIANSHIP AND INFORMATION SERVICES 3 Credit Hours

Main theoretical traditions, concepts, and in-depth understanding of international librarianship (library communication on international issues) and comparative librarianship (comparative study of information services in specific contexts) through the study of international cooperation, influences, development aid, international organizations and associations, differences, major issues facing library and information services within their socio-economic, political, and cultural contexts, and innovations to solve these issues across the world.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60669 INFORMATION SERVICES FOR DIVERSE POPULATIONS 3 Credit Hours

Explores services for diverse populations to ensure equity of access to information in a range of LIS institutional settings. Special interests or needs include sensory or mobility-impairment; learning disabilities; illiteracy; incarceration and institutionalization; demographic factors (age, race, ethnicity, socio-economic status, sexual orientation, gender identity); non-native English speakers; and homeless persons. Covers Federal regulations, materials, spaces, programs and services, professional attitudes, techniques, and technology issues.

Prerequisite: LIS 60030; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60671 INTRODUCTION TO CATALOGING PRINCIPLES AND PRACTICES IN MEDICAL LIBRARIES 1 Credit Hour

This course is designed to provide students with cataloging knowledge in the area of medical librarianship. Students will learn how to apply subject analysis principles to evaluate medical resources and assign medical subject headings. This course is one course in a three, one-credit hour sequence of medical librarianship courses.

Prerequisite: LIS 60020; and graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60672 REFERENCE SOURCES AND SERVICES IN MEDICAL LIBRARIES 1 Credit Hour

This course is intended to introduce specialized reference services and sources found in medical library settings.

Prerequisite: LIS 60030; and graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60673 MEDICAL LIBRARY MANAGEMENT AND CULTURE 1 Credit Hour

This course introduces the environment and context of a medical library to students. The course starts with the context of the medical environment and moves to medical libraries, medical librarianship and related management issues specific to medical library environments. The course reviews typical work scenarios and requests for medical librarians.

Prerequisite: LIS 60040; and graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60675 YOUTH MEDIA CULTURES 3 Credit Hours

Emerging and evolving digital formats extend book-related content for young people aged 0-18 across media platforms and provide young audiences with interactive ways of engaging with stories. However, the proliferation of new media formats and related social media platforms means there are just as many questions related to their selection, evaluation and use. This course aims to answer those questions and to critically examine digital formats and related implications for stakeholders – including librarians, publishers, authors, illustrators and consumers – in the field of content produced for young people, from apps to books to video games.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60676 TEACHING STRATEGIES AND METHODS IN SCHOOL LIBRARIES 3 Credit Hours

Principles of teaching students including curriculum, planning instruction, assessment, fundamentals of evaluation, and reflective practice.

All course content focuses on preparing teachers to instruct in the school library media center and obtain a multiage licensure in K-12 School Library Media. This course will include 65 hours of supervised experiential learning that are integrated with academic instruction and related to the student's occupational goal as a school librarian. Students are required to complete Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) background checks and submit the results to authorized personnel at their assigned school-agency before the first day of the semester in which student teaching internship will take place.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60677 SEXUAL AND GENDER IDENTITY IN CHILDREN'S AND TEEN LITERATURE 1 Credit Hour

This course focuses on both theoretical and practical aspects of providing and managing LGBTQAI+ literature and services to youth in the context of public and school libraries.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60678 ENGAGING CHILDREN AND TEENS WITH LATINE LITERATURE 1 Credit Hour

This course is intended to introduce literature written by Latine authors and for Latine youth to be selected for use by informational professionals in information institutions.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60679 TRAUMA INFORMED SOURCES AND SERVICES IN INFORMATION SETTINGS 1 Credit Hour

Introduces students to the key principles of trauma informed service and how these principles can be applied to the provision of resources and services in information settings. Trauma informed services is focused on understanding how to engage, support and respond to individuals who have been impacted by trauma. Highlights how trauma informed information professionals can implement programming, design facilities and services, initiate outreach and equip information professionals to better serve their communities.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LIS 60691 SEMINAR IN INFORMATION STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with LIS 80691) Advanced research by small groups of students who are qualified to examine problems of certain special areas in information studies.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

LIS 60692 INTERNSHIP IN INFORMATION AND CULTURAL HERITAGE INSTITUTIONS 2-3 Credit Hours

(Repeatable for credit) Supervised experience of a professional nature of not less than 100 clock hours for 2 credit hours or not less than 150 clock hours for 3 credit hours in an information or cultural heritage institution. Deliverables determined with instructor of record. Maximum registration of 2-3 credit hours per semester. No more than a total of 6 credit hours of Internship or Individual Investigation or any combination of the two may count toward MLIS degree requirements.

Prerequisite: LIS 60040; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 6-9 other

Grade Mode: Satisfactory/Unsatisfactory-IP

LIS 60700 FOUNDATIONS OF MUSEUM STUDIES 3 Credit Hours

Intended for those interested in learning more about museums or specializing in museum studies. The goal is to introduce students to various aspects of all types of museums as dynamic networked systems positioned around objects, people and ideas. Covers history and types of museums, the roles of objects and ideas, structure, function, museum workers and users, and the purpose and future of museums.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60701 MUSEUM COLLECTIONS 3 Credit Hours

This course introduces students to the organization, care and meaning of objects held in museum collections. Through both theoretical and practical concepts, basic collection management and registration skills are introduced. In conjunction, students explore the meanings made of museum objects.

Prerequisite: LIS 60700; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60702 MUSEUM COMMUNICATION 3 Credit Hours

Museums communicate to the public in a multitude of ways: interpretation, exhibition, publication, educational programming and using a web presence. This course introduces important concepts, theories, applications, processes and technology used in museum interpretation and communication. Students are provided with a balance of practical techniques with thoughtful conceptual exploration.

Prerequisite: Graduate standing.

Pre/corequisite: LIS 60700.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60703 MUSEUM USERS 3 Credit Hours

Families, individuals and students visit museums and community institutions for a variety of purposes including leisure, education and curiosity. This course introduces students to the research and theory on museum user experience using a contextual approach to understanding museum users via the personal, socio-cultural and physical. This inquiry will involve examining notions of learning, engagement, and transformative experiences of users, characteristics of users, and the social dynamics of the museum experience. In addition, this course will review several programmatic techniques and methods used in museums to increase engagement and learning for visitors and take the student through all aspects of a museum visit, from beginning to end.

Prerequisite: Graduate standing.

Pre/corequisite: LIS 60700.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 60792 CULMINATING EXPERIENCE PRACTICUM IN K-12 LIBRARIES 3 Credit Hours

Under the advisement of a faculty member, students complete a professional-level practicum that serves as a culminating experience for the M.L.I.S. degree.

Prerequisite: LIS 60607 or LIS 60040; and LIS 60624 or LIS 60020; and LIS 60617 and LIS 60626 and LIS 60629 and LIS 60630; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 9 other

Grade Mode: Standard Letter-IP

LIS 60892 CULMINATING EXPERIENCE FOR DUAL DEGREE 6 Credit Hours

Culminating experience for students pursuing dual degree in M.Ed. and M.L.I.S. and K-12 School Library Media licensure. Must be in a supervised educational library or information center.

Prerequisite: ADED 62145 and CI 67310 and CI 67330 and EPSY 65524 and LIS 60030 and LIS 60617 and LIS 60630 and SPED 53050; and LIS 60607 or LIS 60040; and LIS 60020 or LIS 60624; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

LIS 61095 SPECIAL TOPICS IN INFORMATION STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with LIS 81095) Offered irregularly as resources and/or opportunities permit. Topics could include current or emerging issues in information studies. Specific topics are announced in the schedule of classes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

LIS 61096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation in areas not covered by the existing curriculum for master's level graduate students. Deliverables determined with instructor of record. Maximum registration of 1-3 credit hours per semester. Students may count a maximum of 6 credit hours of individual investigation toward their MLIS degree requirements. No more than a total of 6 credit hours of Internship or Individual Investigation or any combination of the two may count toward MLIS degree requirements.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

LIS 80603 SUBJECT ANALYSIS, REPRESENTATION AND ACCESS 3 Credit Hours

(Slashed with LIS 60603) The course focuses on the theories, principles, and practices of subject analysis of the intellectual content of information resources and its representation through controlled vocabularies and classification. It covers fundamental concepts of aboutness, vocabulary control, classification theory, ethical considerations, and the theoretical foundations, structure, and the application of major subject vocabularies (such as LCSH), classification schemes (such as Dewey), and other knowledge organization systems, including genre/form and named entity management. The course also includes examinations of authority control for subject headings.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80613 INFORMATION NEEDS, SEEKING AND USE 3 Credit Hours

(Slashed with LIS 60613) Surveys theories and research related to people's interactions with information. The theories covered include information context and situation, information needs, information seeking, exploration of information sources, communication and collaboration in the information search process, information use, and other interactions among people, information, and information systems.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80627 ART AND STORY: THE STUDY OF CHILDREN'S PICTUREBOOKS 3 Credit Hours

(Slashed with LIS 60627) This course engages students in the study and application of art and story in children's picturebooks through the lenses of book history, publishing studies, children's book illustration, and storytelling, visual literacy and visual storytelling. Picture book readers are also studied, from professional readers, like librarians and book reviewers, to picturebook consumers.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80631 INTRODUCTION TO DIGITAL PRESERVATION 3 Credit Hours

(Slashed with LIS 60631) Approaches and standards for preserving and maintaining access to digitized and born-digital text, images, data, audiovisual information, and web resources. Topics include longevity of digital media, selection for preservation; formats and strategies for preservation; preservation metadata; integrity and authenticity of digital materials; establishment and certification of trustworthy digital repositories; risk management; and policy development.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80633 DIGITAL CURATION 3 Credit Hours

(Slashed with LIS 60633) Management and preservation of digital objects and records throughout their lifecycle. Essential technologies and standards for building and maintaining robust, trusted digital repositories. Emphasizes the use and reuse of scholarly data, business and government records, cultural heritage materials, and other digital objects to create resources supporting communities of practice in their work.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80635 CULTURAL HERITAGE INFORMATICS 3 Credit Hours

(Slashed with LIS 60635) Cultural heritage informatics brings a comprehensive, cross-disciplinary approach to supporting the entire lifecycle of cultural heritage information and documentation procedures for the benefit of the preservation, study, and promotion of cultural heritage. The course covers methods of creating descriptions for cultural objects, as well as organizing, delivering, and presenting the cultural heritage (tangible, intangible, and digital) resources in the digital age. The course aims to prepare students for careers focusing on or transcending libraries, archives, museums (LAMs), historical societies, and other cultural institutions by introducing them to the methodologies and technologies commonly used in cultural heritage informatics and can be broadly implemented in LAMs.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80636 KNOWLEDGE ORGANIZATION STRUCTURES, SYSTEMS AND SERVICES 3 Credit Hours

(Slashed with LIS 60636) Introduction to various types of knowledge organization structures, services and systems (KOS) used in the networked environment. Understanding of the functional philosophical, logical and linguistic fundamentals of KOS. Explanation of design options, features of KOS, and procedures to be used in the taxonomy, thesaurus and ontology construction. Analysis and evaluation of KOS. Issues related to online display, visualization, interoperability and internationalization.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80637 METADATA ARCHITECTURE AND IMPLEMENTATION 3 Credit Hours

(Slashed with LIS 60637) Principles and theories of metadata development in the digital environment. Main focus is given to the design and applications of metadata schemas for distinct domains and information communities, issues in metadata interoperability, vocabulary control, quality control and evaluation. Examination of international standards, activities and projects with the use of case study approach.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80649 INDEXING AND ABSTRACTING 3 Credit Hours

(Slashed with LIS 60649) Principles and methods of manual and computerized indexing and abstracting applied to I&A databases, back-of-book indexes, Web site indexes and sitemaps. Techniques of constructing indexing languages using international standards. Theory and practice of index design for specific formats and subjects. Automation and I&A services in networked environments.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80652 FOUNDATIONS OF RECORDKEEPING IN SOCIETY 3 Credit Hours

(Slashed with LIS 60652) An introduction to the core principles and practices of recordkeeping and the multiple and complex roles records and archives play in identity, evidence, transparency, memory, accountability, equity, representation and trust in society. This course covers historical and contemporary recordkeeping contexts related to individuals, family, community, organization, corporate, academia and government, as well as traditional, nontextual and digital formats of records and archives.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80657 THEORY AND METHODS OF ARCHIVAL ACQUISITION, SELECTION AND APPRAISAL 3 Credit Hours

(Slashed with LIS 60657) This course provides a comprehensive introduction to the theory, methods and traditions employed by records professionals to form and shape archives as societal memory. This course focuses primarily on acquisition, selection, documentation and appraisal theory and methods. Students will also examine contemporary records frameworks and approaches and issues faced by archivists, special collections librarians and manuscript curators employed to identify, evaluate, acquire and dispose of records.

Prerequisite: LIS 80652; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80668 INTERNATIONAL LIBRARIANSHIP AND INFORMATION SERVICES 3 Credit Hours

(Slashed with LIS 60668) Main theoretical traditions, concepts, and in-depth understanding of international librarianship (library communication on international issues) and comparative librarianship (comparative study of information services in specific contexts) through the study of international cooperation, influences, development aid, international organizations and associations, differences, major issues facing library and information services within their socio-economic, political, and cultural contexts, and innovations to solve these issues across the world.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LIS 80691 SEMINAR IN INFORMATION STUDIES 1-3 Credit Hours

(Slashed with LIS 60691) Advanced research by small groups of students who are qualified to examine problems of certain special areas in information studies.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

LIS 81095 SPECIAL TOPICS IN INFORMATION STUDIES 1-3 Credit Hours

(Repeatable for credit) (Slashed with LIS 61095) Offered irregularly as resources and or opportunities permit. Topics could include current or emerging issues in information studies. Specific topics are announced in the schedule of classes.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

LIS 81096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation in areas not covered by the existing curriculum for doctoral level students. Deliverables determined with instructor of record.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

User Experience (UX)**UX 60501 INTRODUCTION TO USER EXPERIENCE 3 Credit Hours**

This course provides a comprehensive overview of User Experience (UX) from various perspectives, including the origins of UX as a professional discipline, the goals and values of UX within organizations, elements of UX practice and the agile development environment. It further introduces roles and contributions of specialization areas within UX, as well as the principles of user experience design. The introduction of Information Architecture includes hands-on practice. Students will develop and document their professional development goals.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60502 USER EXPERIENCE PROCESSES AND PRACTICE 3 Credit Hours

Students engage in a structured walkthrough of the major goals, responsibilities, and elements of User Experience (UX) in an agile environment. This course introduces important models of iterative design processes and the professional practices of research, design, prototyping, testing and team communication. Students will explore personal goals for specialization in UX.

Prerequisite: Graduate standing.

Pre/corequisite: UX 60501.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60503 FUNDAMENTALS OF INTERACTION DESIGN 3 Credit Hours

This course offers students a comprehensive understanding of interaction design principles and their practical implementation. It covers the concept of prototyping, enabling students to create their own prototypes, and refine them based on peer feedback.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60504 ACCESSIBILITY AND UNIVERSAL DESIGN 3 Credit Hours

This course will provide user experience researchers and designers with the skills to evaluate technology accessibility, as well as an understanding of the principles of universal design and how they guide and influence the design of digital experiences

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60505 ARTIFICIAL INTELLIGENCE LITERACY FOR THE INFORMATION PROFESSIONS 3 Credit Hours

This course provides an overview of Artificial Intelligence (AI), from foundational concepts like Large Language Models (LLMs) to practical application and governance. You will learn to apply AI in an information professional context to solve problems by developing AI literacy and skills to achieve desired outcomes. The curriculum covers risk assessment, including bias, hallucinations, data transparency and security, vetting information generated by AI tools, alongside integrating AI into workflows while considering the evolving role of human-in-the-loop oversight. Students will analyze ethical considerations, costs, and strategic decisions for deciding in what circumstances, how and with what guidelines to implement AI in organizations, including new opportunities for workforce development across information professions.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60506 ARTIFICIAL INTELLIGENCE TOOLS IN USER EXPERIENCE 3 Credit Hours

This course focuses on the rapidly evolving emergence and integration of Artificial Intelligence (AI) tools into user experience design in agile product development environments. This course prepares students for UX careers in AI-enabled environments by providing foundational understanding of the evolving role of AI-enabled tools in the processes and practices of user experience design. Students explore emerging tools in hands-on learning projects, with the goal of understanding how the profession is adopting AI-enabled processes for discovery research, information architecture, interaction design, and evaluation. Students gain an understanding of end-to-end product development in AI-enabled agile environments. Implications for the profession are explored, and students will reflect on the emerging role of AI in their own professional goals and development.

Prerequisite: UX 60503; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60507 THE PSYCHOLOGY OF HUMAN-INFORMATION INTERACTION 3 Credit Hours

This course examines how human cognitive processes and the design of digital products come together to create useful, meaningful products. Students explore six cognitive domains—perception, attention, memory, learning, decision heuristics and language processing—and their application in interaction design and information architecture. They consider the design implications of user research when examined through a cognitive lens. Through hands-on application of cognitive principles to simple design prototypes, students learn to diagnose design failures, predict user behavior and consider cognition in human-AI partnerships. The course bridges cognitive psychology theory with foundational design principles and practical design decisions, preparing students to create systems that support how people think, learn and decide.

Prerequisite: UX 60503; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60511 INFORMATION ARCHITECTURE FUNDAMENTALS 3 Credit Hours

Introduction to the fundamental concepts of information architecture (IA) and underlying cognitive processes of concept structure and information categorization. Students develop practical skills for content analysis and the design and evaluation of information architectures. Major topics include organization, navigation, labeling and design for finding.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60521 DATA-DRIVEN INTERACTION FUNDAMENTALS 3 Credit Hours

Modern digital products rely on a complex technical and informational infrastructure that affects interaction design and the user experience. This course prepares students for UX careers in data-driven environments by providing a foundational understanding of data, information infrastructure, including content management, information architecture and Artificial Intelligence, in the context of design for data-driven interaction. Implications of data-driven design for user privacy and data security are also discussed. Students will explore the future of user experience shaped by ML and AI and discuss the ethical dimensions of this evolution, including issues of fairness, accountability and transparency and will apply their learning in the design of a data-driven prototype.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60531 DISCOVERY RESEARCH FUNDAMENTALS 3 Credit Hours

In order to design a successful user experience, UX professionals seek to discover users' needs, goals and tasks. This course covers discovery research methods such as interviews, surveys, diary studies and other methods applicable to the formative stages of the design process.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60541 USER EXPERIENCE EVALUATION FUNDAMENTALS 3 Credit Hours

Evaluating prototypes and products is a critical component of user experience design. This course covers qualitative and quantitative evaluation methods, such as heuristic evaluation, cognitive walkthrough, usability testing, A/B testing and experimental design. Students will learn how to choose evaluation methods, how to conduct them and how to communicate the results of evaluations.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UX 60691 SEMINAR IN USER EXPERIENCE 1-3 Credit Hours

(Repeatable for credit) (Slashed with UX 80691) Advanced research by students who are qualified to examine problems of certain special areas in user experience.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

UX 60693 VARIABLE TITLE WORKSHOP IN USER EXPERIENCE 1-3 Credit Hours

(Repeatable for credit) Intensive examination of special topics of interest to those involved in user experience.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

UX 60792 ELECTIVE INTERNSHIP IN USER EXPERIENCE 2-3 Credit Hours

(Repeatable for credit) Supervised work experience in user experience design of a professional nature of not less than 100 clock hours (for 2 credit hours) or 150 clock hours (for 3 credit hours).

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 6.33-10 other

Grade Mode: Satisfactory/Unsatisfactory-IP

UX 61095 SPECIAL TOPICS IN USER EXPERIENCE 1-3 Credit Hours

(Repeatable for credit) (Slashed with UX 81095) Offered irregularly as resources and or opportunities permit. Topics could include current or emerging issues in user experience.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

UX 61096 INDIVIDUAL INVESTIGATION IN USER EXPERIENCE 1-3 Credit Hours

(Repeatable for credit). Individual investigation in areas not covered by the existing curriculum for master's level students.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

UX 66199 THESIS I 2-6 Credit Hours

Thesis students must register for a total of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

UX 66299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: UX 66199; and graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

UX 80691 SEMINAR IN USER EXPERIENCE 1-3 Credit Hours

(Repeatable for credit) (Slashed with UX 60691) Advanced research by students who are qualified to examine problems of certain special areas in user experience.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

UX 81095 SPECIAL TOPICS IN USER EXPERIENCE 1-3 Credit Hours

(Repeatable for credit) (Slashed with UX 61095) Offered irregularly as resources and or opportunities permit. Topics could include current or emerging issues in user experience.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

UX 81096 INDIVIDUAL INVESTIGATION IN USER EXPERIENCE 1-3 Credit Hours

(Repeatable for credit). Research or individual investigation in areas not covered by the existing curriculum for doctoral level students. Deliverables determined with instructor of record.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

User Experience Design (UXD)**UXD 20001 INTRODUCTION TO USER EXPERIENCE DESIGN 3 Credit Hours**

Students explore the context within which User Experience Design exists and the fundamental research that explains human behavior and how that research informs design decisions. Students are also introduced to the basic design processes and deliverables employed by UXD professionals.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UXD 40104 USABILITY 3 Credit Hours

Provides a conceptual and practical overview of the processes and methods of usability testing such as development of test protocols, goals, facilitation, analysis and reporting of results. Actual usability tests are performed, using quantitative and qualitative methods and employing emerging software tools to facilitate data collection and analysis.

Prerequisite: UXD 20001.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

UXD 41095 SPECIAL TOPICS IN USER EXPERIENCE DESIGN 1-3 Credit Hours

(Repeatable for credit) Topics could include current or emerging issues in user experience design. Topics will be announced in schedule of classes. Offered irregularly as resources and opportunities permit.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

UXD 41096 INDIVIDUAL INVESTIGATION IN USER EXPERIENCE DESIGN 1-3 Credit Hours

(Repeatable for credit) Research or individual investigation in areas not covered in the existing curriculum for baccalaureate level students at or above the junior level.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

School of Multidisciplinary Social Sciences and Humanities

Gender and Sexuality Studies (GSS)

GSS 10100 INTRODUCTION TO GENDER AND SEXUALITY STUDIES 3 Credit Hours

This course explores gender and sexuality studies from a multidisciplinary perspective. This course examines the cultural, social and biological constructs of sex and gender and interrogates the structures — governmental, familial, religious and social — that have informed historical and current thinking about sex and gender. This course includes global histories and definitions of gender and sexuality across time and place, and asks students to ponder: why is gender a primary organizing societal principle, and how do race, class, sexuality and disability status intersect with it?

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GSS 30500 METHODOLOGIES AND PRAXIS IN GENDER AND SEXUALITY STUDIES 3 Credit Hours

This course provides an arena for individual and group inquiry as well as conversations on methodologies and practices in gender studies pedagogy and research with emphases on multi-, inter- and transdisciplinary approaches. The topics reflect the crucial linkage between knowledge as we do knowledge, ethics as we embrace ethics, practices and traditions as they play and accrue within the real academic endeavors of the fields which converge and diverge in gender studies and its closely kindred variants. This course offers different methodological entrance points of use and value. At once, we study their deployment in actual practice. Moving beyond research practice, the course considers, too, the multifaceted praxes of scholars, teachers and cohorts of all kinds involved in the actional vision, mission, strategies, tactical planning and programmings, record-keeping, self-appraisals and archives at the heart of gender and sexuality studies.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GSS 40450 GENDER AND SEXUALITY ROUNDTABLE 3 Credit Hours

This course takes an interdisciplinary approach in examining how gender and sexuality have been constructed through social, cultural, discursive and economic processes in hierarchizing social relations in society. The course is organized in a roundtable format that draws on the expertise of scholars and practitioners in the field who introduce students to contemporary issues and debates around gender and sexuality, both locally and globally, in a participatory forum. Students also gain insight on critical anti-racist, feminist and queer epistemologies and pedagogies in order to generate new knowledge and act in addressing gender and sexual inequality in their communities and wider society.

Prerequisite: GSS 10100.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

GSS 40591 SEMINAR IN GENDER AND SEXUALITY STUDIES 3 Credit Hours

(Repeatable for credit) This course is required for all students in the Gender and Sexuality Studies major. The focus varies with instructor, providing students with advanced learning in gender and sexuality studies.

Prerequisite: GSS 10100.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Integrative Studies (IGST)

IGST 40099 SENIOR PROJECT (ELR) (WIC) 1-3 Credit Hours

(Repeatable for credit) Thesis or independent study done under the supervision of a faculty advisor. Students need written approval of faculty advisor, faculty member's unit or the School of Multidisciplinary Social Sciences and Humanities director to enroll in this course.

Prerequisite: School of Multidisciplinary Social Sciences and Humanities major; and senior standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement, Writing Intensive Course

IGST 40192 INTERNSHIP IN INTEGRATIVE STUDIES (ELR) 3-6 Credit Hours

(Repeatable for credit) Internship.

Prerequisite: Special approval from the director of the center for comparative and integrative programs.

Schedule Type: Practical Experience

Contact Hours: 9-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

International Studies (INTS)

INTS 10504 THE NEW PANGAEA: YOUR ROLE IN OUR GLOBAL COMMUNITY 3 Credit Hours

Introduces students to the myriad of ways in which they are individually and collectively connected to the global community. Looking specifically at ways in which people are interconnected as consumers, patients, donors and participants in discourse, the course introduces students to the concepts, institutions and dynamics of globalization. Through assignments that focus on important global issues and engage students directly with the global community, students (a) learn how to engage the global community as informed consumers of information, (b) understand the basic structure of the global political arena, (c) learn how to engage actively and consciously within that arena and (d) understand the ways in which their daily behavior impacts global trends.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 30001 "TRUE FACTS": MAKING SENSE OF YOUR WORLD 3 Credit Hours

How can you find a reliable answer to a question you are curious about? "Research methods" sometimes seems like an intimidating subject, but it is really just a chance to think about how to find good answers to important questions. Scholars use a wide variety of methods, and this course provides an introduction to many of them, preparing students to be informed, critical consumers of information; to succeed in future research projects; and to take additional methods courses with confidence if they choose.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 30101 WORLDS OF WEALTH AND POWER 3 Credit Hours

Students investigate a wide variety of real-world market activity, including the economics of war, the underground economies of the rich and poor and the role of illicit trade in the making of the United States. What is the everyday experience of economic life like in these and other conditions? What can that tell us about how markets work on the local, national and global levels?

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 30301 HUMAN SECURITY 3 Credit Hours

For a century or more, leaders around the globe have defined "national security" narrowly, focusing nearly entirely on perceived threats of physical violence against the systems they led. A less state-centric and more person-centric conceptualization of security recognizes that the threats to human security include not only violence against a state or economic system. Food insecurity, for instance, whether caused by famine, poverty, maldistribution of resources or structural disparities in access (for instance, so called "food deserts") undermines the security not only of individuals, but communities and, thereby, leadership. Climate change has caused land erosion and, thereby, resource evolution and depletion in various parts of the globe, leaving whole communities (and thereby states) economically and physically vulnerable. This course explores multiple dimensions of human (in)security, examines related policies and stretches analytic muscles in considering potential solutions to causes of insecurity.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 30501 ORDER AND RESISTANCE 3 Credit Hours

When the hierarchies of economic systems or state institutions are unresponsive to the needs of society, movements develop to resist the prevailing ruling order. Sometimes social movements seek to empower and include new members of society. Other times they mobilize on constructed grievances that seek to maintain untenable social exclusions. Whether demanding more equality or something else, these ordinary people in social movements enter a conversation with the people who govern them and have the full weight of the state apparatus behind them. This course reflects on this process of social struggle in order to understand the political, economic and social costs of supporting the continued exclusion of certain groups. It aims to understand political change and violence as a struggle played out between state authorities and social movements. After examining case studies of such state-society struggles from around the world, students are guided to consider what role they can each play to constructively contribute to the global society.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 30570 PALESTINE AND ISRAEL 3 Credit Hours

(Cross-listed with POL 30570) Course introduces students to academic approaches and theories that attempt to understand the situation in historic Palestine. The course is divided into four sections: (1) theories of settler colonialism and basic differences between Judaism, Zionism and Israeli society, as well as diversity within Palestinian society; (2) comparative studies of the establishment of the modern state of Israel, which Palestinians view in their collective experience as "the Catastrophe" or al-Nakba; (3) the occupation of East Jerusalem, the West Bank and Gaza, and how that system has changed over time; (4) pathways forward for Palestinians and Israelis.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 30580 SOLIDARITY AND MUTUAL AID 3 Credit Hours

How can individuals and communities thrive during trying times? What strategies build both freedom and support in practice? Explore what it means to build community in a world that can seem increasingly polarized and uncertain. Two main questions guide collaborative learning throughout this course: what is a resilient community, and how can groups work together to build one? This requires focus on developing an understanding of mutual aid and solidarity with others. How have these kinds of practices worked out in specific instances? This course investigates examples from the United States, Europe, Middle East and Caribbean.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 40089 INTERNATIONAL EXPERIENCE (ELR) 3 Credit Hours

(Repeatable for credit) Faculty-led study abroad programs.

Prerequisite: Special approval.

Schedule Type: International Experience

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

INTS 40092 INTERNSHIP (ELR) 1-6 Credit Hours

(Repeatable for credit) In consultation with a faculty member, the student arranges a substantive internship in a relevant area. The student also typically provides a journal of the experience, as well as a written analysis comparing the practice of the internship to an example of relevant scholarship in the area.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 3-18 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

INTS 40095 SPECIAL TOPICS IN INTERNATIONAL STUDIES 3 Credit Hours

(Repeatable for credit) Analysis of significant and current issues in international studies not covered in regular courses. Offered when opportunities and resources permit; the topic is announced when the course is scheduled.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 40096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Individual investigation with a faculty member. Student typically develops a topic and reading list in consultation with the faculty member, discusses the material with the faculty member throughout the semester and produces a paper at the end of the course.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

INTS 40560 HUMAN RIGHTS AND SOCIAL JUSTICE 3 Credit Hours

(Cross-listed with POL 40560) Examines the relationship between human rights and problems of the Third World in the civic, political, social and cultural arenas. Particular attention is placed on the struggle of women.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

INTS 40799 CAPSTONE IN INTERNATIONAL STUDIES (ELR) (WIC) 3 Credit Hours

In this course, students integrate and build on what they have learned throughout the major. The standard assignment is a research paper that (1) connects the electives the student has taken with the core courses in the major and (2) describes a future trajectory of learning and working (answering such questions as: What are you planning to do after graduation? What is the next step in your career? Where and how are you going to make a difference? How do you build on what you have done here in order to get there?). In consultation with the instructor, students may develop a different assignment, such as a paper on a different topic, a graduate school application essay and writing sample, a career application portfolio or part of an honors thesis.

Prerequisite: None.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

Jewish Studies (JWST)**JWST 11001 INTRODUCTION TO JEWISH STUDIES 3 Credit Hours**

Introductory exploration and examination of the diversity of Jewish life, culture, religion and society from antiquity to the present.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JWST 30092 INTERNSHIP IN JEWISH STUDIES (ELR) 3-6 Credit Hours

(Repeatable for credit) Internship in Jewish studies.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 9-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

Attributes: Experiential Learning Requirement

JWST 30100 JEWISH WOMEN IN THE MODERN WORLD 3 Credit Hours

Course explores the lives and experiences of Jewish women from diverse communities and traditions, in relation to a wide array of divergent cultural contexts within the modern world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JWST 30300 CHILDREN OF THE HOLOCAUST: PERPETRATORS AND VICTIMS 3 Credit Hours

Examination of the children directly affected by the Holocaust (whether as victims, perpetrators, heroes, rescuers or survivors) and the impact these children had on the Holocaust and on history.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JWST 30301 HOLLYWOOD AND THE HOLOCAUST 3 Credit Hours

This course will examine the history of how Hollywood, starting in the 1930s, dealt with the rise of Nazism and its impact on the Jews of Germany and of Europe. In addition, we will be dealing with the large numbers of Holocaust-related films that reached the movie houses starting in the late 1940s to the present.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

JWST 40089 STUDY ABROAD (ELR) 1-4 Credit Hours

(Repeatable for credit) A Kent State study abroad experience led by Jewish Studies faculty that integrates traditional classroom learning with experiential activities and site visits outside the United States.

Prerequisite: None.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

JWST 40090 STUDY AWAY (ELR) 1-4 Credit Hours

(Repeatable for credit) A Kent State out-of-classroom experience led by Jewish Studies faculty that integrates traditional classroom learning with experiential activities and site visits within the United States.

Prerequisite: None.

Schedule Type: Study Away

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

JWST 40095 SPECIAL TOPICS IN JEWISH STUDIES 3 Credit Hours

(Repeatable for credit) Topics vary per course offering as published in the Schedule of Classes.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

JWST 40096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Student-initiated experience in an area of interest not covered by a regular course offering and with the guidance of a Kent State faculty member.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Lesbian, Gay, Bisexual, Transgender and Queer Studies (LGBT)**LGBT 20020 INTRODUCTION TO LESBIAN, GAY, BISEXUAL, TRANSGENDER AND QUEER STUDIES 3 Credit Hours**

Introduction to the field of LGBTQ Studies as well as an introduction to critical issues in LGBTQ lives.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LGBT 30095 SPECIAL TOPICS IN LGBTQ STUDIES 1-3 Credit Hours

(Repeatable for credit) Study of special topics related to LGBTQ studies.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

LGBT 30120 LGBTQ RIGHTS AND CONTEMPORARY ISSUES 3 Credit Hours

This course will explore the current political, legal, and social climate in the United States for LGBTQ individuals. The main objective of this course will be to provide students with the skills and tools to engage intelligently in discourse about LGBTQ issues, rights, history, activism, and lives.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

LGBT 30135 LGBTQ REPRESENTATIONS IN POPULAR CULTURE 3 Credit Hours

This course will explore the representations or portrayals of LGBTQ people in popular culture. Popular culture includes pulp fiction, television, news media, social media, films, and other media.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

LGBT 30196 INDIVIDUAL INVESTIGATION IN LGBTQ STUDIES 1-3 Credit Hours

(Repeatable for credit) Individual investigation in areas of interest not covered in courses.

Prerequisite: Junior standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

LGBT 31138 LGBTQ RESEARCH METHODS (ELR) 3 Credit Hours

Explores different qualitative and quantitative methodologies through applied research on LGBTQ-related topics.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

LGBT 40095 SPECIAL TOPICS IN LGBTQ STUDIES 1-3 Credit Hours

(Repeatable for credit) This course will provide new and emerging topics for students to study.

Prerequisite: LGBT 20020 or LGBT 31138.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

LGBT 40192 PRACTICUM IN LGBTQ STUDIES (ELR) 3-6 Credit Hours

(Repeatable for credit) Guided study of various aspects of the LGBTQ experience through involvement in the community, government agencies, non-profits, educational institutions, and other areas.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 8-18 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

LGBT 40201 TRANSGENDER STUDIES 3 Credit Hours

Explores transgender studies, which addresses theories, practices, laws and other cultural expressions of sexed embodiments, gender identity and gender expression.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LGBT 40202 QUEER THEORY 3 Credit Hours

Explores theories related to sexual orientation, gender expression and gender identity.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Liberal Studies (LSTU)

LSTU 60092 INTERNSHIP 1-6 Credit Hours

(Repeatable for credit) Students participate in internships under the direction of a faculty member.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

LSTU 61099 LIBERAL STUDIES ESSAY 3 Credit Hours

(Repeatable for credit) The preparation of a lengthy, research-based essay related to the student's program of study for the Master of Liberal Studies degree.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Satisfactory/Unsatisfactory-IP

LSTU 61198 LIBERAL STUDIES RESEARCH PAPER 1-3 Credit Hours

(Repeatable for credit) Students learn how to write a graduate-level research paper.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

Multidisciplinary Social Sciences and Humanities (MSSH)

MSSH 20071 INTRODUCTION TO GENDER AND SEXUALITY STUDIES 3 Credit Hours

Provides an introduction to the interdisciplinary study of gender and sexuality, with particular focus on the tenants of the field (e.g., intersectionality, anti-oppression, social justice).

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MSSH 30171 THEORIES OF GENDER AND SEXUALITY 3 Credit Hours

Provides students the opportunity to explore in finer detail the theories and approaches used in the study of gender and sexuality (including feminisms, queer theory, critical theories, intersectionality, anti-oppression, social justice), and to address the influence of such theoretical approaches in further research on the subjects of gender and sexuality and by informing social change and deliberations by individuals and movements concerning gender and sexuality.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

MSSH 40089 STUDY ABROAD (ELR) 1-4 Credit Hours

(Repeatable for credit) A Kent State faculty-led study abroad experience that integrates traditional classroom learning with experiential activities and site visits outside the United States.

Prerequisite: None.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

MSSH 40090 STUDY AWAY (ELR) 1-4 Credit Hours

(Repeatable for credit) Faculty-led and other study away opportunities in the School of Multidisciplinary Social Sciences and Humanities.

Prerequisite: None.

Schedule Type: Study Away

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

MSSH 40092 INTERNSHIP (ELR) 1-6 Credit Hours

(Repeatable for credit) In consultation with a faculty member, the student arranges a substantive internship in a relevant area. The student also typically provides a journal of the experience, as well as a written analysis comparing the practice of the internship to an example of relevant scholarship in the area.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 3-18 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

MSSH 40095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Topics vary depending on instructor and current interest.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

Paralegal Studies (PLST)

PLST 18000 INTRODUCTION TO PARALEGAL STUDIES AND PROFESSIONAL ETHICS 3 Credit Hours

An overview of the legal system and the role of a paralegal professional. Includes legal terminology, types of laws, research, litigation, interviewing and office management.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 28001 LEGAL RESEARCH AND WRITING 3 Credit Hours

In-depth analysis of the legal research process, development of legal writing skills, opportunities to utilize research and writing skills are integrated into the course.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 28003 FAMILY LAW AND PROCEDURE 3 Credit Hours

Designed to acquaint the student with family law substance and practice. Covers definitions, terminology, topical areas and the philosophy underlying family law practice.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 28004 CIVIL PROCEDURE 3 Credit Hours

Provides an introduction to the rules of civil procedure, statutes of limitation and discovery. Included in this course is a discussion of the role of the paralegal in preparation for litigation.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 28007 ESTATE AND PROBATE ADMINISTRATION 3 Credit Hours

A study of legal principles applicable to wills, organization and jurisdiction of probate court, estate administration in probate and tax considerations in estate administration.

Prerequisite: PLST 18000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 30000 ENVIRONMENTAL PROTECTION REGULATIONS AND ASSESSMENT 3 Credit Hours

The Federal and State environmental regulations including the National Environmental Policy Act, the Clean Air Act, the Clean Water Act, Solid and Hazardous Waste regulations (RCRA) and the Superfund Legislation require the utilization of trained environmental professionals to conduct Environmental Site Assessments (ESAs). The focus of this course is to introduce students to the methods and approaches for conducting environmental research and study of industrial sites with respect to environmental policies and regulations. The enforcement of regulations utilize environmental professionals who serve in governmental agencies, work in private environmental companies that provide assessments and consultations for industries, and who are employed by industries that seek qualified employees to conduct assessments, and provide professional guidance for industrial regulatory compliance.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 35001 ENVIRONMENTAL LAW FOR PARALEGALS 3 Credit Hours

Acquaints the student with the various federal and state statutes, administrative rules and case law that govern environmental regulation. International environmental law is also studied.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 35003 HEALTH LAW 3 Credit Hours

Makes the student familiar with legal topics in the field of health care including federal and state statutes governing the health care industry in the United States. Specific topics include insurance, privacy, malpractice, fraud, Medicare, Medicaid, health records, labor law-related issues and clinical research.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 35005 LABOR AND EMPLOYMENT LAW FOR PARALEGALS 3 Credit Hours

Provides a foundation in the areas of labor law, employment law, and employment discrimination law. Requires in-depth study of constitutional, statutory, administrative, and case law at both the federal and state level.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 35007 ENERGY AND NATURAL RESOURCES LAW 3 Credit Hours

Acquaints the student with the various sources of law that govern energy production and the harvesting of natural resources in the United States.

Statutory, administrative, and case law at the federal and state levels are explored.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 36001 LAW OFFICE TECHNOLOGY 3 Credit Hours

This course introduces students to computer hardware and software that apply to the legal environment. Students learn Microsoft Office components including Teams, Word, Excel, OneNote, PowerPoint and Outlook, and the Windows operating system as they are used in the day-to-day life of paralegals. Students also explore legal specific software including TrialDirector, Clio, NetDocuments, Workshare, iManage and Concordance.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 36792 INTERNSHIP IN PARALEGAL (ELR) 3-12 Credit Hours
(Repeatable for credit) Work experience under the direction of supervising faculty members in the following entities: private law firms, legal service/legal aid offices, law departments or corporations and government agencies.

Prerequisite: PLST 18000 and PLST 28001 and PLST 28004.

Schedule Type: Practical Experience

Contact Hours: 21-84 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

PLST 38003 ADMINISTRATIVE LAW AND PROCESS 3 Credit Hours

The substantive and procedural aspects of administrative law are covered in this course. Specific topics include the regulation of public utilities, transportation agencies, employment, food and drugs and the environment.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 38005 TORT LAW 3 Credit Hours

Focus is on tort and personal injury law. Specific topics include intentional torts, negligent torts, strict liability, vicarious liability, product liability and business torts. Defenses to tort and product liability are also discussed.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 38006 APPLIED LEGAL RESEARCH AND LITIGATION (WIC) 3 Credit Hours

Provides for intense case analysis and preparation of argumentative memorandum, including writing of factual memoranda, file summaries and advocacy letters.

Prerequisite: PLST 28001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PLST 40095 SPECIAL TOPICS IN PARALEGAL STUDIES 1-3 Credit Hours

(Repeatable for credit) Topics vary depending on instructor and current legal issues in the area of paralegal studies and the law.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

PLST 42701 EVIDENCE AND E-DISCOVERY 3 Credit Hours

Addresses the various issues concerning the use of evidence in the pre-trial, trial and post-trial phases of litigation. The course addresses the traditional rules and issues associated with litigation practice as well as the new issues concerning electronic discovery of evidence and the use of that evidence.

Prerequisite: PLST 28001 and PLST 28004.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 42705 BANKRUPTCY LAW I: BASIC FUNDAMENTALS 3 Credit Hours

Provides an outlay of the fundamentals of bankruptcy law including the basic rules of the Chapter 7, Chapter 11, and Chapter 13 forms of bankruptcy. This course covers other topics such as the bankruptcy petition, the role of the bankruptcy trustee, and discharge from bankruptcy.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 42708 REAL ESTATE LAW 3 Credit Hours

Provides a general outlay of real estate law in the United States. Students learn the substantive and procedural aspects of gaining and protecting property rights. Real estate contracts, financing, zoning and landlord-tenant issues are covered.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 48002 CONTRACT LAW 3 Credit Hours

Intended to provide the student with an in-depth analysis of basic contract law as such related to contract information, performance and remedies. Also intended to familiarize the student with the sources of law that define contracts with an emphasis on reading and understanding case law. The student also develops a vocabulary of legal terms so that the student may assist the legal practitioner in the representation of clients in business transactions and in disputes.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 48300 LAW OF CORPORATIONS AND OTHER ASSOCIATIONS 3 Credit Hours

Covers the formation, operation and dissolution of various kinds of business organizations. Subjects covered include sole proprietorships, corporations, partnerships, the law of agency and employment agreements.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 48401 PATENT LAW 3 Credit Hours

Provides the student with an in-depth analysis of the law pertaining to patents, stressing the ability of the owner to protect their rights through filing, registration and use. International issues concerning registration, use, and trade agreements are also covered.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 48404 COPYRIGHT LAW I 3 Credit Hours

(Slashed with PLST 58404) Intended to provide the student with an in-depth analysis of the foundations of the law pertaining to copyrights. Stresses the ability of the owner to protect such rights through use and registration. Also discusses the links to patent law, trademark law and the law of trade secrets.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 48407 TRADEMARK LAW 3 Credit Hours

(Slashed with PLST 58407) Intended to provide the student with an in-depth analysis of the law pertaining to trademarks and trade secrets. Stresses the ability of the owner to protect such rights through use and registration. Also discusses the links to patent law and copyright law.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 58404 COPYRIGHT LAW I 3 Credit Hours

(Slashed with PLST 48404) Intended to provide the student with an in-depth analysis of the foundations of the law pertaining to copyrights. Stress the ability of the owner to protect such rights through use and registration. Also discusses the links to patent law, trademark law and the law of trade secrets.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PLST 58407 TRADEMARK LAW 3 Credit Hours

(Slashed with PLST 48407) Intended to provide the student with an in-depth analysis of the law pertaining to trademarks and trade secrets. The course will stress the ability of the owner to protect such rights through use and registration. The course will also discuss the links to patent law and copyright law.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Religion (REL)

REL 11020 INTRODUCTION TO WORLD RELIGIONS (ELR) (KHUM) 3 Credit Hours

A study of the religious impulse as it manifests itself in the plurality of beliefs, practices and institutions of the world religions.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Kent Core Humanities, Transfer Module Humanities

REL 21021 MOSES, JESUS AND MOHAMMAD (ELR) (KHUM) 3 Credit Hours

An in-depth exploration of Judaism, Christianity and Islam, considering the circumstances of each tradition's beginnings, the influence of the identified founder, and the cultural diversities evident in the history of each of the distinctive religious traditions, as well as the inter-connectedness and influence of each of three religions upon the others. Course concludes with a consideration of the contemporary situations faced by the traditions, including their engagements with modernity and one another as global historic traditions in a changing world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Kent Core Humanities, Transfer Module Humanities

REL 31065 COMPARATIVE RELIGIOUS EXPERIENCE 3 Credit Hours

Examination of the phenomena of religious experience, its structure, ramifications and expression in myth and ritual.

Prerequisite: REL 11020 or REL 21021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

REL 40095 SPECIAL TOPICS IN RELIGION STUDIES 3 Credit Hours

(Repeatable for credit) Special topics seminar in religion studies.

Prerequisite: Junior standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

REL 40096 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Individual investigation in religion studies.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

REL 41010 RELIGION, VIOLENCE AND TERROR 3 Credit Hours

(Slashed with REL 51010) Course explores a variety of religions focusing on the themes of violence and terror. The examination employs different academic approaches to selected historic examples and their underlying causes.

Prerequisite: Junior or Senior Standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

REL 41091 SEMINAR IN ADVANCED COMPARATIVE RELIGION 3

Credit Hours

(Repeatable for credit) (Slashed with REL 51091) Variable content course that is an advanced examination of pivotal issues, schools and theorists in the study of religion and the future of comparative studies.

Prerequisite: Junior or senior standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

REL 42091 RELIGION IN THE MODERN WORLD 3 Credit Hours

(Slashed with REL 52091) (Repeatable for credit) An inquiry into the influences of modernity in the conception, valuation and/or interpretation of religious convictions, beliefs, symbolizations, institutions and artifacts (including texts). The study of Religion in the Modern World is a complex undertaking offering multiple foci with multiple attending disciplines and approaches to the inquiry. Given the plurality of foci and approaches, instructors may choose to address any number of the common topics associated with the evolution of religions in the modern world. Examples include: religion and science – from cosmology (Gallo, Newton, to black holes) to the origins and evolution of the human species (Darwin), or religion and society, or religion and the modern state, or religion and industrial society, or religion in a modern world of pluralism and multicultural societies as well as the religious reactions against science, modern multicultural societies, the modern state and the changing legal status of women, minorities, and children, and the rise of fundamentalism.

Prerequisite: Junior or Senior standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

REL 51010 RELIGION, VIOLENCE AND TERROR 3 Credit Hours

(Slashed with REL 41010) Course explores a variety of religions focusing on the themes of violence and terror. The examination employs different academic approaches to selected historic examples and their underlying causes.

Prerequisite: Graduate studies.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

REL 51091 SEMINAR IN ADVANCED COMPARATIVE RELIGION 3

Credit Hours

(Repeatable for credit) (Slashed with REL 41091) Variable content course that is an advanced examination of pivotal issues, schools and theorists in the study of religion and the future of comparative studies.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

REL 52091 RELIGION IN THE MODERN WORLD 3 Credit Hours

(Slashed with REL 42091) (Repeatable for credit) An inquiry into the influences of modernity in the conception, valuation and-or interpretation of religious convictions, beliefs, symbolizations, institutions and artifacts (including texts). The study of Religion in the Modern World is a complex undertaking offering multiple foci with multiple attending disciplines and approaches to the inquiry. Given the plurality of foci and approaches, instructors may choose to address any number of the common topics associated with the evolution of religions in the modern world. Examples include: religion and science -- from cosmology (Gallio, Newton, to black holes) to the origins and evolution of the human species (Darwin), or religion and society, or religion and the modern state, or religion and industrial society, or religion in a modern world of pluralism and multicultural societies as well as the religious reactions against science, modern multicultural societies, the modern state and the changing legal status of women, minorities, and children, and the rise of fundamentalism.

Prerequisite: Graduate studies.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Women's Studies (WMST)**WMST 20101 INTRODUCTION TO WOMEN'S STUDIES: TRADITIONS, TRAJECTORIES, TROUBLES 3 Credit Hours**

The course introduces students to Women's Studies - what it studies, how it came into being, what happened next. In focus are its traditions, its consequential contexts of struggle and protest, its pioneers, the multiple fields from which they came to this fresh-born academic hub. The course examines worldwide spread of WMST programs, their variant, evolving interests and work, the hounding, keenly felt disruptions and conflicts. We sample key scholarship with staying power; we peruse pieces across an interdisciplinary range; we visit early ideas now fallen out of favor, relegated to archives and/or bins. We also, importantly, consider how rifts and various troubles led to crucial metamorphoses as well as new fields.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 30001 ARENAS FOR FEMINIST THOUGHT: TOUCHY SUBJECTS, UNSETTLED MATTERS AND FEMINIST RESPONSE-ABILITY 3 Credit Hours

A multi-layered inquiry into the substantial discursive project initially undertaken by feminists to break the hold of dominant theory and begin to articulate theory from new standpoints expressed in new language. This course opens an arena within which to study real engagements of thinkers, theorists, their thoughts, theories, arguments, critical appraisals, etc. as they have emerged, developed and contended. The course coheres in a sense of feminist thinkers as profoundly responsive to their contexts, situated in times, places and atmospheres powerfully infused with settled and unsettled meanings.

Prerequisite: Sophomore standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 30002 FEMINIST RESEARCH METHODS 3 Credit Hours

Explores different qualitative and quantitative methodologies through applied research on WMST-related topics as well as on topics informed by feminist standpoints and thought/theory. Provides sturdy foundation for undergraduate students whose aims include undergraduate research, graduate school, and/or actual fieldwork.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 30091 KEY CONVERSATIONS THROUGH WOMEN'S STUDIES 3 Credit Hours

(Repeatable for credit) A critical investigation of the position and category of women from a cross-cultural, historical and interdisciplinary perspective, with special emphasis on major themes and issues in women's studies. Issues including race, ethnicity and sexuality may also be addressed.

Prerequisite: Junior standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 30095 SPECIAL TOPICS IN WOMEN'S STUDIES 1-4 Credit Hours

(Repeatable for credit) Study of selected topics in women's studies organized around historical and theoretical issues and movements. This includes contemporary feminist theory, suffragist movement and third wave feminism.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

WMST 30100 HISTORY OF WOMEN IN THE UNITED STATES 3 Credit Hours

(Cross-listed with HIST 31075) An exploration of the political, economic, social, intellectual and cultural forces that have shaped women's lives, women's thought, perceptions of womanhood and feminism, from 1607 to the present in what is now the United States.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 30196 WOMEN STUDIES INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) The design and completion of a scholarly research project related to women's studies, and the presentation of findings at the end of the term. Arrangements must be made in the semester prior to registration.

Prerequisite: Special approval by instructor.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

WMST 30201 WITCHES: THE MONSTROUS FEMININE 3 Credit Hours

This course counterbalances student inquiry with lectures and materials at once grounded in women's and gender/sexuality studies and reliant on a range of interdisciplinary sources. The course centers two key touchstones: witch and monstrous feminine. Course trajectories traverse history, culture, religion, politics and academic and popular renderings to locate keys: hunts, trials, dynamics of allegation, guilt and innocence. The course aims to 'correct' traditions of objectification and typecasting by interrogating real subjectivities and the dimensionality of feminine, monstrous and witch.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 30202 FEMINIST HUMOR: DISARMING LAUGHTER, DISRUPTIVE DISCOURSE 3 Credit Hours

This course utilizes four key terms to set its directions of inquiry: humor, laughter, discourse and feminist. The most fundamental pursuits are inductive in nature, grounding studies in actual discursive practice, the realities of women's politically-charged and personally-resonant humor, laughter and feminisms as they converge in contexts both private and public, mediated and live/face-to-face. Scholarship on feminist humor provides our final framing.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 30301 REPRESENTATIONS OF WOMEN AND FEMINISM IN POPULAR CULTURE 3 Credit Hours

The basic challenge of this course is that it requires the study of two things simultaneously: 'women' and 'women as represented' in popular culture. From the classic object of woman sexed and gendered, feminist study has evolved to also consider woman the subject, the autonomous person with agency within her environment. The course covers much ground: dominant narratives; the often-overlapping contexts of media, politics, morality and religion; the signs inherent in language and imagery; and the power asymmetry and embattled definitions of "woman."

Throughout the course, we employ varied approaches that resist any one right answer, easy dogmatic conclusion or evaluation of the narratives.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 30302 GLOBAL FEMINISMS: A WORLD AND CENTURY OF WOMEN'S ACTIVISM 3 Credit Hours

This course explores real and diverse circumstances where feminisms have emerged. Over the semester, we examine feminist movements and their respective contexts; feminists' distinct directions of thought and action; individuals, groups and organizations that have participated in defining feminism; and finally, the connectivity that makes transnational feminist work possible. The course is grounded in sites of 'agonizing and organizing,' as well as in those feminist narratives that search for cohesion even where there is tension. Finally, throughout the course, we embrace and explore complexities of unresolved issues: none more basic than the still controversial claim that women's rights are human rights.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 32323 RAPE CULTURE: RETHINKING DANGER, POWER, SEX AND FEMINIST FRAMINGS 3 Credit Hours

Nothing is simple, incontrovertible or 'cool' in 'rape culture.' The subject, act and discourse surrounding rape is embedded in culture and confounded by culture: by opinions, standpoints, simplistic arguments and personal and political interests. Feminist framings of 'rape culture' invite different inquiry: into mythology, ideology, theory and alternative interpretations of bodies in a given context. Famed feminist Andrea Dworkin interrogates rape culture's center: powers practically guaranteed, moreover "exercised... [and] protected... by religion ... by universities ... [even] by [poets and artists], the unacknowledged legislators of the world." This course utilizes multiple approaches to study and interrogate 'rape culture,' each of which illuminates this inherently dark subject in new light.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

WMST 40992 PRACTICUM IN WOMEN'S STUDIES (ELR) 3 Credit Hours

(Repeatable for credit) An assignment at a private, public or nonprofit organization that centers on women's issues such as education health and policy making. Arrangements must be made in the semester prior to registration.

Prerequisite: Special approval.

Schedule Type: Practical Experience

Contact Hours: 9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

WMST 44321 PIVOTAL PRAXIS: EXPERIMENTS IN ACTIONABLE FEMINISM 3 Credit Hours

This course engages students at the pumping heart of the whole feminist story: its actual work. For feminists on the ground, pivotal praxis is feminism: getting the vote, demanding equality, wrangling through contentious issues, women's marches and campaigns. In a word: practice. Experiments in practical, actional feminism. Our study probes ideas that hit streets as well as ideas born of "done things." Under scrutiny are scenes: socio-political, cultural spaces wherein women enact change, determine outcomes recognized as feminist. These include but are not limited to the realpolitik of suffrage vs. anti-suffrage, consciousness-raising, the famed national women's convention in Houston, internet activism, transversal coalition-building across boundaries/borders. The course provides opportunity for students' own experiments and exercises in feminist praxis.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

School of Peace and Conflict Studies

Peace and Conflict Studies (PACS)

PACS 11001 INTRODUCTION TO CONFLICT MANAGEMENT (KSS) 3 Credit Hours

Introduces key elements of conflict management theory and peacebuilding practice such as conflict styles, active listening, assertion, collaborative problem solving, principled negotiation, mediation and nonviolent conflict intervention. These are essential "life skills" useful in personal, social and professional contexts. Includes conflict communication skills development and practice.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Social Sciences

PACS 30000 MAY 4, 1970, AND ITS AFTERMATH 3 Credit Hours

(Cross-listed with AFS 30000 and POL 30000) Study of the events of the 1960s in the U.S. leading up to May 4, 1970 when the Ohio National Guard killed and wounded Kent State University students protesting the U.S. war in Vietnam and Cambodia. Topics are considered within their cultural, historical, social and political contexts. The course also examines the aftermath of May 4th, including the controversy surrounding constructing the gym annex on the May 4th site, the legal trials, the role of commemorations and memorials and the politics of remembering May 4, 1970.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 31002 GENDER, POWER AND CONFLICT 3 Credit Hours

Examines gender roles and power imbalances in interpersonal relationships and group settings and on the structural level, and the various manifestations of violence that may result, considering some of the ways in which these imbalances are developed, maintained and constructively addressed and potentially redressed.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 31003 NONVIOLENCE: THEORY AND PRACTICE 3 Credit Hours

This course explores the theory and practice of nonviolent action as a method for transforming conflict and pursuing social change. Students examine key concepts such as strategy, tactics and the paradox of repression, while analyzing how systems of power shape movements and participation. Through case studies, simulations and engagement with local organizations practicing nonviolent action, students connect theoretical frameworks to real-world experiences and develop skills for evaluating and designing effective nonviolent strategies.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 31010 CONFLICT THEORY 3 Credit Hours

Explores the theoretical foundations of conflict and conflict management to provide a greater understanding of the nature, sources and dynamics of various types of conflict; special challenges faced in addressing those conflicts; and theory underlying various approaches to conflict management and resolution.

Prerequisite: PACS 11001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 32020 STRATEGIC PLANNING 3 Credit Hours

Provides training with the principles and tactics of strategic planning for individuals, organizations, agencies and institutions. Students learn to apply the principles of conflict management to strategic planning, including assessing the current environment, developing goals and objectives and establishing a timeline for acting on a strategic plan.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 32030 INTERNATIONAL CONFLICT RESOLUTION 3 Credit Hours

This course examines the causes, expressions and consequences of international conflicts and civil wars, while exploring practical approaches to their management and resolution. Through case studies and experiential learning, students develop practical skills to apply key concepts to real-world contexts. They also cultivate informed, critical perspectives about war, peace and security in today's increasingly interconnected and globalized world.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 32040 CROSS-CULTURAL CONFLICT MANAGEMENT 3 Credit Hours

This course examines the cultural dimensions of conflict in diverse, multicultural settings, with particular emphasis on the nature and sources of cross-cultural conflicts, processes of escalation and de-escalation and influence of power disparities. It explores strategies for managing and resolving cross-cultural conflicts, while encouraging students to reflect on their own cultural assumptions and how these shape their responses to conflict. Students also work to expand their awareness and capacity for cross-cultural conflict resolution. Case analyses and experiential learning exercises highlight approaches that are respectful of the diverse cultural values of the parties involved.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 33030 CONFLICT IN THE WORKPLACE 3 Credit Hours

Explores the causes, impact and dynamics of conflict in the workplace. Issues explored include personality conflict, incivility, ethics, teams, management style, diversity, legal issues, alternative dispute resolution, union environments and workplace violence.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 34010 CAREER PATHWAYS IN PEACE AND CONFLICT STUDIES
3 Credit Hours

So, what does one do with a major or minor in peace and conflict studies? How does one find a job or internship in the field? This course encourages students to explore and critically examine how the skills and knowledge learned throughout peace and conflict studies courses can be utilized and applied to real-world settings. Students interact with alumni and professionals working in a variety of careers that utilize conflict management and related skills. They learn how to do professional networking, create a career plan, develop job search strategies and market their skills and knowledge. Students complete the course with a career plan and detailed identification and exploration of options or another career-related project.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 35050 ENVIRONMENTAL CONFLICT RESOLUTION **3 Credit Hours**

(Cross-listed with POL 30350) Examines environmental conflicts, such as land use disputes and resource conflicts, and conflict resolution theory and processes applicable to environmental disputes, especially biodiversity conservation and natural resource conflicts. Students learn about environmental conflict analysis, multistakeholder environmental dispute resolution, dialogue processes, conflict-sensitivity, and environmental cooperation among others. Case studies of environmental conflicts and participatory simulations are used.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 35092 INTERNSHIP IN PEACE AND CONFLICT STUDIES (ELR)
1-9 Credit Hours

(Repeatable for credit) Students work as interns with an organization, group or business, utilizing and enhancing their skills with conflict management and applied peace studies.

Prerequisite: Two Peace and Conflict Studies (PACS) upper-division (30000 or 40000 level) courses; and junior standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 3-27 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

PACS 35095 SPECIAL TOPICS IN PEACE AND CONFLICT STUDIES **3 Credit Hours**

(Repeatable for credit) Designed to provide an in-depth examination of topics and issues of interest to faculty and students. Specific topics are announced in the schedule of classes and on the School of Peace and Conflict Studies website.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 36096 INDIVIDUAL INVESTIGATION IN PEACE AND CONFLICT STUDIES **3 Credit Hours**

(Repeatable for credit) Individualized program of study and literature review of area of particular interest to the student.

Prerequisite: Two Peace and Conflict Studies (PACS) upper-division (30000 or 40000 level) courses; and junior standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 9 other

Grade Mode: Standard Letter-IP

PACS 40089 INTERNATIONAL EXPERIENCE: PEACE AND CONFLICT STUDIES (ELR) **1-4 Credit Hours**

(Repeatable for credit) (Slashed with PACS 50089) A Kent State faculty-led study abroad experience in peace and conflict studies that provides students with learning through experiential activities and site visits outside the United States.

Prerequisite: None.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

PACS 40090 STUDY AWAY: PEACE AND CONFLICT STUDIES (ELR)
1-4 Credit Hours

(Repeatable for credit) (Slashed with PACS 50090) A Kent State faculty-led study away experience in peace and conflict studies that provides students with learning experiences within the United States outside of Kent State University.

Prerequisite: None.

Schedule Type: Study Away

Contact Hours: 1-4 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

PACS 41010 RECONCILIATION VERSUS REVENGE: TRANSITIONAL JUSTICE (WIC) **3 Credit Hours**

"Transitional justice" refers to civil and political processes used to move from violence and tyranny to peace and democracy. War crimes tribunals, truth and reconciliation commissions, apologies, forgiveness, reparations and memorials are examined.

Prerequisite: One Peace and Conflict Studies (PACS) upper-division (30000 or 40000 level) course; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

PACS 44040 NEGOTIATION **3 Credit Hours**

(Slashed with PACS 54040) Effective negotiation skills are essential for success in both our professional and personal lives. This course explores negotiation theories, strategies and techniques in an engaging and interactive way. Students enhance their negotiation skills by learning to plan for an effective negotiation, elicit information effectively, build relationships, improve their communication and persuasive abilities and deal with a variety of situations and circumstances. There are several opportunities to practice negotiation skills during class, experiment with different approaches and develop the skills and confidence to negotiate effectively and constructively.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 45050 COMMUNITY ORGANIZING: PEOPLE, POWER AND PEACEFUL CHANGE 3 Credit Hours

Mobilizing communities for positive and peaceful social change requires thoughtful leaders equipped with the skills to organize people and power. Organizing can make a difference in addressing major public challenges that demand full engagement of community, especially those whose voices are not heard unless they organize. Leadership is accepting responsibility to enable others to achieve shared purpose in the face of uncertainty. Organizing is a way to lead by identifying, recruiting and developing more leaders; building community around that leadership; and building power from the resources of that community.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 45060 ENVIRONMENTAL JUSTICE 3 Credit Hours

(Slashed with PACS 55060) This course traces the linking of environment and social justice movements, initially in the U.S. and then internationally, to cover a range of issues that now fall under the banner of environmental justice. It includes theories of justice and environmental protection; issues and critiques of social injustices in environmental movements, including NIMBY ("not in my backyard"), climate justice and mainstream conservation; and case studies demonstrating the need and means to promote just conservation and sustainable development in a politically and economically divided world. Students learn collaborative, non-violent, decolonial approaches to environmental justice action, dialogues and policymaking.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 45093 VARIABLE TOPIC WORKSHOP IN PEACE AND CONFLICT STUDIES 1-6 Credit Hours

(Repeatable for credit) Variable topic offered as need arises. Specific topics will be announced in the Schedule of Classes and on the School of Peace and Conflict Studies website.

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

PACS 48080 MEDIATION: THEORY AND TRAINING 3 Credit Hours

(Slashed with PACS 58080) Provides training of mediation skills, principles and methods in an interactive way. Students examine the historical development and uses of mediation in various contexts including family, business, labor management, civil, community and workplace disputes.

Prerequisite: PACS 11001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 49091 VARIABLE CONTENT SEMINAR IN PEACE AND CONFLICT STUDIES 1-3 Credit Hours

(Slashed with PACS 59091) (Repeatable for maximum of 3 credit hours) Seminar devoted to detailed study of various topics in the field of peace and conflict studies. Specific topics are announced in schedule of classes and on the School of Peace and Conflict Studies website.

Prerequisite: Junior standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

PACS 50089 INTERNATIONAL EXPERIENCE: PEACE AND CONFLICT STUDIES 1-4 Credit Hours

(Repeatable for credit) (Slashed with PACS 40089) A Kent State faculty-led study abroad experience in peace and conflict studies that provides students with learning through experiential activities and site visits outside the United States.

Prerequisite: Graduate standing.

Schedule Type: International Experience

Contact Hours: 1-4 other

Grade Mode: Standard Letter

PACS 50090 STUDY AWAY: PEACE AND CONFLICT STUDIES 1-4 Credit Hours

(Repeatable for credit) (Slashed with PACS 40090) A Kent State faculty-led study away experience in peace and conflict studies that provides students with learning experiences within the United States outside of Kent State University.

Prerequisite: Graduate standing.

Schedule Type: Study Away

Contact Hours: 1-4 other

Grade Mode: Standard Letter

PACS 54040 NEGOTIATION 3 Credit Hours

(Slashed with PACS 44040) Effective negotiation skills are essential for success in both our professional and personal lives. This course explores negotiation theories, strategies and techniques in an engaging and interactive way. Students enhance their negotiation skills by learning to plan for an effective negotiation, elicit information effectively, build relationships, improve their communication and persuasive abilities and deal with a variety of situations and circumstances. There are several opportunities to practice negotiation skills during class, experiment with different approaches and develop the skills and confidence to negotiate effectively and constructively.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 55060 ENVIRONMENTAL JUSTICE 3 Credit Hours

(Slashed with PACS 45060) This course traces the linking of environment and social justice movements, initially in the U.S. and then internationally, to cover a range of issues that now fall under the banner of environmental justice. It includes theories of justice and environmental protection; issues and critiques of social injustices in environmental movements, including NIMBY ("not in my backyard"), climate justice and mainstream conservation; and case studies demonstrating the need and means to promote just conservation and sustainable development in a politically and economically divided world. Students learn collaborative, non-violent, decolonial approaches to environmental justice action, dialogues and policymaking.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 58080 MEDIATION: THEORY AND TRAINING 3 Credit Hours

(Slashed with PACS 48080) Provides training of mediation skills, principles and methods in an interactive way. Students examine the historical development and uses of mediation in various contexts including family, business, labor management, civil, community and workplace disputes.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 59091 VARIABLE CONTENT SEMINAR IN PEACE AND CONFLICT STUDIES 1-3 Credit Hours

(Slashed with PACS 49091) (Repeatable for maximum of 3 credit hours) Seminar devoted to detailed study of various topics in the field of peace and conflict studies. Specific topics are announced in schedule of classes and on the School of Peace and Conflict Studies website.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

PACS 60000 FOUNDATIONS OF CONFLICT ANALYSIS AND MANAGEMENT 3 Credit Hours

(Cross-listed with POL 60901)(Slashed with POL 70901) Covers the historical development of the conflict analysis and management field; conflict theories; the dynamics by which conflicts escalate, stalemate and de-escalate; and theories of conflict intervention, resolution and transformation.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60001 ADVANCED NEGOTIATION 3 Credit Hours

(Slashed with PACS 70001) Conflict and negotiation are normal and unavoidable parts of life. This course goes beyond basic negotiation concepts like principled negotiation, focusing on topics including the psychology of negotiation, power, international relations, technology and other advanced topics. The course covers issues of information asymmetry; power; ethics; and multi-party, iterative and collaborative negotiations. Research of negotiation and prior case studies are used to illustrate topics. This course is highly interactive, focusing on experiential learning and education. Evaluation of performance includes experiential exams, reflection papers and written understanding and analysis of real-world negotiations. Simulations and games are used during class frequently to illustrate concepts.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 60002 ADVANCED MEDIATION 3 Credit Hours

(Slashed with PACS 70002) This course provides students with a conceptual understanding of mediation as well as practical mediation skills. It enables them to work as intermediaries who can assist conflict parties to reflect on the sources and dynamics of their conflict; develop mutually acceptable solutions; and foster constructive, sustainable relationships. The course starts with essential concepts and skills for mediating small-scale interpersonal conflicts. It then addresses more complex intergroup, multiparty conflicts as well as deep-rooted structural conflicts. Through class discussions of readings and simulation exercises, students tackle questions such as how to work with conflicts in which there are many competing issues, goals and priorities involved; how to mediate enduring, intractable conflicts about identity, value and social structure; and how to respond to serious ethical dilemmas and power asymmetry. To meet these challenges, students not only critique the popularized framework of interest-based principled negotiation/mediation, but also develop holistic, creative third-party contributions to systemic social change.

Prerequisite: PACS 60000 and PACS 60001; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 60003 COMMUNITY-BASED CONFLICT TRANSFORMATION 3 Credit Hours

(Slashed with PACS 70003) This course is designed to expand students' knowledge of and practice competency with group- and community-level dynamics and peacebuilding techniques, giving students the skills and knowledge to turn divisive situations into strengthened and connected communities. The course begins by introducing theories of group processes, engagement and peacebuilding. It then focuses on using case studies and experiential learning to master the skills and understand the applications of group and community peacebuilding techniques. Case studies range across the areas of education, democracy, leadership, restorative justice, community conflict resolution and institutional change. Examples of topics include theories of group process, engagement, participation, efficacy, dynamics and contact; community conflict resolution process such as intergroup and race dialogue; institutional change and strategic planning including evaluation and intervention for institutions, facilitation, stakeholder identification, planning, best practices and consensus decision making, ground rules, fishbowls and debriefs; and democracy and restorative justice practices including deliberative democracy, circle process and alternatives to violence project (AVP). The final course project involves students applying these skills in partnership with a local community organization, group or neighborhood to address a community need or conflict. This course is taught in a flipped format.

Prerequisite: Graduate standing.

Pre/corequisite: PACS 60000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60004 ORGANIZATIONAL CONFLICT AND COOPERATION 3 Credit Hours

(Slashed with PACS 70004) This course examines organizational conflict, cooperation and partnership. Whether volunteering with a community-based organization, managing a team in a highly bureaucratized institution, joining a student group or organizing a coalition, navigating organizational dynamics (culture) and building and managing collaborations and partnerships are challenging tasks that require understanding differences, coping with power relations and transforming conflicts. Throughout this course, students explore types of organizational interactions, nature and source of organizational conflict, organizational culture and collaboration, power dynamics, decision making and problem solving in organizations.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 60005 PEACE, CONFLICT AND DEVELOPMENT: LOCAL-GLOBAL DYNAMICS 3 Credit Hours

(Slashed with PACS 70005) This course explores the relationships between peace, conflict and development. It covers key concepts, theories and approaches to understanding and addressing the nexus between peace, conflict and development. Students critically review relevant theoretical and policy literature and apply them to real-world case studies as part of participatory skill-building exercises. The course starts with an overview of essential development theories, models and actors of development practice. It examines relevant scholarly and policy debates of conflict-development links; the political economy of conflict and (uneven) development; relevant security issues (e.g., small arms proliferation, disarmament, demobilization and reintegration (DDR), security sector reform (SSR)); the relationships between natural resources, livelihoods and conflict; the roles of gender and youth in conflict and development; measures of effective development in conflict-affected societies; and development alternatives, as well as emerging critical debates about alternatives to development.

Prerequisite: Graduate standing.

Pre/corequisite: PACS 60000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60006 POST-CONFLICT PEACEBUILDING 3 Credit Hours

(Slashed with PACS 70006) Throughout the course of the past decade, peacebuilding has become the concept du jour of not only the field of conflict resolution and peace studies, but of the larger fields of international relations, development studies, transitional justice and a host of other subfields and portions of area studies. This is partly due to the fact that peacebuilding has become somewhat of a monster, enveloping and consuming different approaches to conflict resolution, international relations and development studies to the point that almost any activity addressing those involved or suffering from conflicts can be included under its umbrella. However, given that the concept was originally coined to help address the tasks necessary to implement peace, this course largely, though not wholly, focuses on post-conflict peacebuilding and how different actors at different levels have roles to play in achieving sustainable peace within communities, regions and states. The course examines the concepts that make up peacebuilding, manners in which peacebuilding efforts have been implemented by actors at multiple levels and problems associated with dominant approaches to the topic.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60007 PRAXIS IN CONFLICT-SENSITIVE DEVELOPMENT 3 Credit Hours

(Slashed with PACS 70007) This course enables students to build the practical skills necessary to advance socially responsible and sustainable development across conflict-affected societies and regions. A key concept explored throughout the course is conflict sensitivity — a sustained, iterative process of analyzing social conflict as a context of development work; understanding the interactions between the context and the development intervention; and making use of the understanding to maximize positive program impacts and minimize negative impacts. Students apply a range of theories to skill-building exercises to learn how to practice conflict-sensitive development. Through these experiential exercises, students think through the entirety of the development program cycle, from needs assessment to proposal development, fundraising, program implementation, capacity building, report writing, monitoring and evaluation and project phaseout. During each of these steps, students examine how to practice cultural sensitivity, stakeholder inclusion, local ownership and sustainability in a context-specific, adaptive manner. Case studies highlight essential themes selected from the Sustainable Development Goals (SDGs), a United Nations sponsored list of 17 development goals such as poverty alleviation, food security, health, education, gender equity and climate change action. The course also opens dialogue about how to go beyond the conventional framework of conflict sensitivity to realize conflict-transformative development.

Prerequisite: PACS 60000; and graduate standing.

Pre/corequisite: PACS 60005.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60009 LEADERSHIP FOR PEACEFUL CHANGE 3 Credit Hours

This course introduces a series of group discussions and experiential learning exercises designed to enable students to critically reflect on the lessons from their preceding coursework, gain additional practitioner skills and prepare for a career in the field. The experiential learning exercises include a multi-stakeholder simulation in which student teams make use of their skills to examine and address the complexity of real-world challenges. The themes explored throughout the seminar are: (1) collaborative, inclusive and ethical leadership capable of empowering people and groups to realize peaceful social change, (2) crisis management of unexpected events and security challenges, (3) integrative thinking to draw upon diverse theories, methods and skills, (4) the ability to develop theory-informed practices and advance theories derived from practical experiences to demonstrate adaptive leadership, and (5) illustrative examples of, perspectives on and planning for career development, life-work balance and self-care, all of which are essential for building successful careers in the field.

Prerequisite: PACS 60000; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60020 IDENTITY DRIVEN CONFLICTS 3 Credit Hours

(Cross-listed with POL 60903)(Slashed with POL 70903) Explores the roles played by ethnicity, race, religion, culture and other elements of identity in the generation, resolution and conduct of conflicts within and between groups. Physical and symbolic markers of difference are examined in order to understand both why groups differentiate themselves from one another and how mechanisms such as skin color, religious affiliation, ethnic background or cultural traditions can provide the impetus for conflict or the grounds for resolution.

Prerequisite: Graduate standing.

Pre/corequisite: PACS 60000.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60021 POWER, CONFLICT AND THE POLITICS OF GENDER 3 Credit Hours

(Cross-listed with POL 60902)(Slashed with POL 70902) Examines power disparities and gender as sources of conflict in multiple arenas—including family, community, workplace and the political sphere. The intersections of gender and power in the generation and resolution of social conflicts are examined. Emphases is placed on empowerment strategies and tactics used to transform gendered conflicts and redress power imbalances.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60022 SOCIAL MOVEMENTS AND NONVIOLENT CONFLICTS 3 Credit Hours

(Cross-listed with POL 60904)(Slashed with POL 70904) The waging and escalating of conflicts by social movements through nonviolent actions frequently shifts conflicts from one stage to another while also contributing to conflict transformation and to substantive social and political changes. Course focuses on social movement theories and practices, and on the complicated dynamics of nonviolent action campaigns waged by social movements.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60023 PEACE PSYCHOLOGY 3 Credit Hours

(Slashed with PACS 70023) This course provides students with an introduction to the concepts of peace psychology and how these concepts relate to wider themes of the peace and conflict studies field, including positive and negative peace, conflict resolution and reconciliation. During the course, students investigate the micro-level psychological foundations for peace and conflict (e.g., power and emotions) and group- and national-level dynamics. During each class, a variety of psychological approaches, from neuroscience to political psychology, are discussed. This course is highly interactive, focusing on experiential learning and education. This means students should be prepared to participate during discussions, simulations and presentations. Collaborative work and case studies help students develop their ability to apply and assess peace psychology theories. Students also have opportunities to personalize course content and assignments to support their learning and research interests.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 60024 VISUAL METHODS FOR PEACE AND CHANGE 3 Credit Hours

(Slashed with PACS 70024) Visual methods are critically important in making and understanding democratic peaceful change. This course explores three intersecting bodies of knowledge: methods and practices of visual studies, global approaches to film as a means of social change and theories and approaches to peace and conflict studies. A focus is on interdisciplinary scholarly methods for understanding visual materials.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 60040 FACILITATION AND TRAINING: DESIGN AND PRACTICE 3 Credit Hours

(Slashed with PACS 70040) This course is designed to teach fundamental practices of peacebuilding in group settings. This includes learning how to facilitate meetings; set agendas; de-escalate and facilitate group-level conversations; run conflict management trainings; and build other practical, hands-on skills. All skills of this course are transferrable across a variety of careers and situations. This course incorporates experiential learning both inside and outside the classroom, with students taking the lead in facilitating class discussions and joining in community projects.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 60041 PEACE EDUCATION 3 Credit Hours

(Slashed with PACS 70041) This course explores the interdisciplinary concepts, theories and practices that provide a global overview of peace education. The course offers an overview of the history, scholarship and practices of peace education, addressing a variety of international structures, organizations and individuals engaged in its practice. A range of concerns are investigated, including war; genocide; climate change; economic disparities; and the marginalization of minorities based upon race, ethnicity, gender, sexual orientation, gender identity, religious affiliation, culture and other categories of difference. Theories of positive peace, conflict resolution, restorative justice, liberation pedagogy and experiential education are also introduced.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 60042 PUBLIC SECTOR CONFLICT TRANSFORMATION 3 Credit Hours

(Slashed with PACS 70042) This course examines the many ways that conflict and decision making are made in the public sector. Some methods of public interaction and decision making are familiar and well studied. Others are less so, despite their increasing use in a variety of policy domains and other circumstances. Such is the case with conflict resolution, which is now broadly used across the United States and internationally on multiple levels and by multiple groups with differing aims. This course explores the varied applications of conflict resolution principles to public policy, including negotiated rule making, public sector dispute resolution, mediation, collaborative problem solving, democratic governance, community-based planning and consensus building.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60070 CONFLICT TRANSFORMATION AND RECONCILIATION 3 Credit Hours

(Cross-listed with POL 60507)(Slashed with POL 70507) Throughout the past 30 years, many states and societies have negotiated complicated transitions from authoritarianism, widespread human rights violations and intractable civil conflict toward various degrees of justice, truth-telling, reconciliation and democracy. Some have done it well and some have not; policy certainly matters in this politically potent arena. For example, political memory and accountability may be swept under the public rug—doing so may, or may not, trip up an experiment in democracy. Alternatively, truth-telling and justice may, or may not, be a springboard for reconciliation, healing and citizen empowerment. In this course, we focus on the policies and mechanisms used to constructively confront impunity and come to terms with past horrors. We analyze various international institutions like war crimes tribunals and truth commissions and various local mechanisms like Rwanda's Gacaca courts. We also study the differing roles of reparations paid to victims for past injustices, amnesties granted to former government officials, immunity being traded for truth-telling about the past and the impacts of commemoration and memorialization.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60071 SOCIETY, TECHNOLOGY AND SECURITY 3 Credit Hours

(Slashed with PACS 70071) This course engages with current debates about the relationship between society, technology, peace and security, focusing particularly on military and dual-use technologies. The course begins by analyzing the literature of how technology shapes societies and societies shape technology. This includes consideration of the way societies influence the emergence and application of particular technologies and how understandings of military technological categories (e.g., pariah weapons, precision weapons) have been socially constructed. The module then examines how states and societies have responded to the policy and governance challenges presented by the development and trade of established weapon categories. This includes analysis of the history of disarmament initiatives, movements and agreements as well as the new field of 'humanitarian disarmament'. It also includes examination of recent initiatives aimed at limiting weapons proliferation and armed violence in conflict-ridden societies. The remainder of the course is devoted to exploring the legal, normative and policy debates about the use of modern and emerging technologies. This includes examination of the governance implications of new developments in fields such as biotechnology, nanotechnology, cyberwarfare and drones.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60072 ENVIRONMENTAL CHANGE AND CONFLICT 3 Credit Hours

(Slashed with PACS 70072) This course examines the varied theoretical and policy challenges involved in addressing the intersection between changes in the environment; the governance and sustainability of natural resources and ecosystems; and the prevention, management and resolution of conflict. It traces the history and development of environmental security and peacebuilding, building a solid foundation of key theories, terminology and concepts, such as the relationship between natural resources and conflict (including scarcity vs. abundance, access and governance); redefinition of security and securitization of the environment; slow- vs. sudden-onset climate change and displacement; and environmental cooperation of peacekeeping, peacemaking, peacebuilding and contemporary conflict resolution. Students have a working knowledge of important international laws and policies governing the protection of the environment in relation to armed conflict and engage in critical discussions at the intersection of conflict issues and trends of environmental change, such as green militarization and small arms proliferation, environmental crimes and surveillance, fortress conservation and conservation conflicts, the role of gender and youth, human rights and environmental defenders, climate justice and conflict-sensitive climate adaptation. Students apply the knowledge and skills developed throughout the course to the development of environmental security assessments, peace and conflict impact assessments and foresight analyses.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 60099 INTERVENTION DESIGN AND IMPLEMENTATION IN PEACE AND CONFLICT STUDIES 6 Credit Hours

This course provides students with an experiential opportunity to integrate theoretical and classroom work with conflict analysis and intervention work in a variety of real-world projects. Each session provides students the opportunity to work on a project where they will engage in intervention design, planning and research and practice implementation activities under faculty guidance.

Prerequisite: PACS 60000 and POL 60010; and graduate standing.

Corequisite: PACS 60009.

Schedule Type: Project or Capstone

Contact Hours: 6 other

Grade Mode: Standard Letter

PACS 60192 INTERNSHIP IN PEACE AND CONFLICT STUDIES 3-6 Credit Hours

(Repeatable for credit) Students work as interns with an organization, group or business, utilizing and enhancing their skills in applied peace studies. The student also typically provides a journal of the experience, as well as a written analysis comparing the practice of the internship to an example of recent scholarship in the field.

Prerequisite: PACS 60000 and PACS 60001; and graduate standing; and special approval.

Corequisite: PACS 60009.

Schedule Type: Practical Experience

Contact Hours: 9-18 other

Grade Mode: Standard Letter-IP

PACS 60199 THESIS I 2-6 Credit Hours

(Repeatable for credit) Thesis students must register for a total of 6 credit hours, 2 to 6 in a single semester, distributed over several semesters if desired.

Prerequisite: Graduate standing.

Pre/corequisite: PACS 60001 and POL 60010.

Schedule Type: Masters Thesis

Contact Hours: 6-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PACS 60299 THESIS II 2 Credit Hours

(Repeatable for credit) Thesis II students must continue registration each semester until all degree requirements are met.

Prerequisite: PACS 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

PACS 61096 INDIVIDUAL INVESTIGATION IN PEACE AND CONFLICT STUDIES 1-3 Credit Hours

(Repeatable for credit) Individualized program of study and literature review of area of particular interest to the student.

Prerequisite: Graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

PACS 61098 RESEARCH IN PEACE AND CONFLICT STUDIES 1-6 Credit Hours

(Repeatable for credit) Individualized, faculty-directed research project. Credit hours may be applied toward meeting degree requirements with department approval.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter

PACS 70001 ADVANCED NEGOTIATION 3 Credit Hours

(Slashed with PACS 60001) Conflict and negotiation are normal and unavoidable parts of life. This course goes beyond basic negotiation concepts like principled negotiation, focusing on topics including the psychology of negotiation, power, international relations, technology and other advanced topics. The course covers issues of information asymmetry; power; ethics; and multi-party, iterative and collaborative negotiations. Research of negotiation and prior case studies are used to illustrate topics. This course is highly interactive, focusing on experiential learning and education. Evaluation of performance includes experiential exams, reflection papers and written understanding and analysis of real-world negotiations. Simulations and games are used during class frequently to illustrate concepts.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 70002 ADVANCED MEDIATION 3 Credit Hours

(Slashed with PACS 60002) This course provides students with a conceptual understanding of mediation as well as practical mediation skills. It enables them to work as intermediaries who can assist conflict parties to reflect on the sources and dynamics of their conflict; develop mutually acceptable solutions; and foster constructive, sustainable relationships. The course starts with essential concepts and skills for mediating small-scale interpersonal conflicts. It then addresses more complex intergroup, multiparty conflicts as well as deep-rooted structural conflicts. Through class discussions of readings and simulation exercises, students tackle questions such as how to work with conflicts in which there are many competing issues, goals and priorities involved; how to mediate enduring, intractable conflicts about identity, value and social structure; and how to respond to serious ethical dilemmas and power asymmetry. To meet these challenges, students not only critique the popularized framework of interest-based principled negotiation/mediation, but also develop holistic, creative third-party contributions to systemic social change.

Prerequisite: PACS 70001; and doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 70003 COMMUNITY-BASED CONFLICT TRANSFORMATION 3 Credit Hours

(Slashed with PACS 60003) This course is designed to expand students' knowledge of and practice competency with group- and community-level dynamics and peacebuilding techniques, giving students the skills and knowledge to turn divisive situations into strengthened and connected communities. The course begins by introducing theories of group processes, engagement and peacebuilding. It then focuses on using case studies and experiential learning to master the skills and understand the applications of group and community peacebuilding techniques. Case studies range across the areas of education, democracy, leadership, restorative justice, community conflict resolution and institutional change. Examples of topics include theories of group process, engagement, participation, efficacy, dynamics and contact; community conflict resolution process such as intergroup and race dialogue; institutional change and strategic planning including evaluation and intervention for institutions, facilitation, stakeholder identification, planning, best practices and consensus decision making, ground rules, fishbowls and debriefs; and democracy and restorative justice practices including deliberative democracy, circle process and alternatives to violence project (AVP). The final course project involves students applying these skills in partnership with a local community organization, group or neighborhood to address a community need or conflict. This course is taught in a flipped format.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 70004 ORGANIZATIONAL CONFLICT AND COOPERATION 3 Credit Hours

(Slashed with PACS 60004) This course examines organizational conflict, cooperation and partnership. Whether volunteering with a community-based organization, managing a team in a highly bureaucratized institution, joining a student group or organizing a coalition, navigating organizational dynamics (culture) and building and managing collaborations and partnerships are challenging tasks that require understanding differences, coping with power relations and transforming conflicts. Throughout this course, students explore types of organizational interactions, nature and source of organizational conflict, organizational culture and collaboration, power dynamics, decision making and problem solving in organizations.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 70005 PEACE, CONFLICT AND DEVELOPMENT: LOCAL-GLOBAL DYNAMICS 3 Credit Hours

(Slashed with PACS 60005) This course explores the relationships between peace, conflict and development. It covers key concepts, theories and approaches to understanding and addressing the nexus between peace, conflict and development. Students critically review relevant theoretical and policy literature and apply them to real-world case studies as part of participatory skill-building exercises. The course starts with an overview of essential development theories, models and actors of development practice. It examines relevant scholarly and policy debates of conflict-development links; the political economy of conflict and (uneven) development; relevant security issues (e.g., small arms proliferation, disarmament, demobilization and reintegration (DDR), security sector reform (SSR)); the relationships between natural resources, livelihoods and conflict; the roles of gender and youth in conflict and development; measures of effective development in conflict-affected societies; and development alternatives, as well as emerging critical debates about alternatives to development.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 70006 POST-CONFLICT PEACEBUILDING 3 Credit Hours

(Slashed with PACS 60006) Throughout the course of the past decade, peacebuilding has become the concept du jour of not only the field of conflict resolution and peace studies, but of the larger fields of international relations, development studies, transitional justice and a host of other subfields and portions of area studies. This is partly due to the fact that peacebuilding has become somewhat of a monster, enveloping and consuming different approaches to conflict resolution, international relations and development studies to the point that almost any activity addressing those involved or suffering from conflicts can be included under its umbrella. However, given that the concept was originally coined to help address the tasks necessary to implement peace, this course largely, though not wholly, focuses on post-conflict peacebuilding and how different actors at different levels have roles to play in achieving sustainable peace within communities, regions and states. The course examines the concepts that make up peacebuilding, manners in which peacebuilding efforts have been implemented by actors at multiple levels and problems associated with dominant approaches to the topic.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 70007 PRAXIS IN CONFLICT-SENSITIVE DEVELOPMENT 3 Credit Hours

(Slashed with PACS 60007) This course enables students to build the practical skills necessary to advance socially responsible and sustainable development across conflict-affected societies and regions. A key concept explored throughout the course is conflict sensitivity — a sustained, iterative process of analyzing social conflict as a context of development work; understanding the interactions between the context and the development intervention; and making use of the understanding to maximize positive program impacts and minimize negative impacts. Students apply a range of theories to skill-building exercises to learn how to practice conflict-sensitive development. Through these experiential exercises, students think through the entirety of the development program cycle, from needs assessment to proposal development, fundraising, program implementation, capacity building, report writing, monitoring and evaluation and project phaseout. During each of these steps, students examine how to practice cultural sensitivity, stakeholder inclusion, local ownership and sustainability in a context-specific, adaptive manner. Case studies highlight essential themes selected from the Sustainable Development Goals (SDGs), a United Nations sponsored list of 17 development goals such as poverty alleviation, food security, health, education, gender equity and climate change action. The course also opens dialogue about how to go beyond the conventional framework of conflict sensitivity to realize conflict-transformative development.

Prerequisite: Doctoral standing.

Pre/corequisite: PACS 70005.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 70023 PEACE PSYCHOLOGY 3 Credit Hours

(Slashed with PACS 60023) This course provides students with an introduction to the concepts of peace psychology and how these concepts relate to wider themes of the peace and conflict studies field, including positive and negative peace, conflict resolution and reconciliation. During the course, students investigate the micro-level psychological foundations for peace and conflict (e.g., power and emotions) and group- and national-level dynamics. During each class, a variety of psychological approaches, from neuroscience to political psychology, are discussed. This course is highly interactive, focusing on experiential learning and education. This means students should be prepared to participate during discussions, simulations and presentations. Collaborative work and case studies help students develop their ability to apply and assess peace psychology theories. Students also have opportunities to personalize course content and assignments to support their learning and research interests.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 70024 VISUAL METHODS FOR PEACE AND CHANGE 3 Credit Hours

(Slashed with PACS 60024) Visual methods are critically important in making and understanding democratic peaceful change. This course explores three intersecting bodies of knowledge: methods and practices of visual studies, global approaches to film as a means of social change and theories and approaches to peace and conflict studies. A focus is on interdisciplinary scholarly methods for understanding visual materials.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 70040 FACILITATION AND TRAINING: DESIGN AND PRACTICE 3 Credit Hours

(Slashed with PACS 60040) This course is designed to teach fundamental practices of peacebuilding in group settings. This includes learning how to facilitate meetings; set agendas; de-escalate and facilitate group-level conversations; run conflict management trainings; and build other practical, hands-on skills. All skills of this course are transferrable across a variety of careers and situations. This course incorporates experiential learning both inside and outside the classroom, with students taking the lead in facilitating class discussions and joining in community projects.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 70041 PEACE EDUCATION 3 Credit Hours

(Slashed with PACS 60041) This course explores the interdisciplinary concepts, theories and practices that provide a global overview of peace education. The course offers an overview of the history, scholarship and practices of peace education, addressing a variety of international structures, organizations and individuals engaged in its practice. A range of concerns are investigated, including war; genocide; climate change; economic disparities; and the marginalization of minorities based upon race, ethnicity, gender, sexual orientation, gender identity, religious affiliation, culture and other categories of difference. Theories of positive peace, conflict resolution, restorative justice, liberation pedagogy and experiential education are also introduced.

Prerequisite: Doctoral standing.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

PACS 70042 PUBLIC SECTOR CONFLICT TRANSFORMATION 3 Credit Hours

(Slashed with PACS 60042) This course examines the many ways that conflict and decision making are made in the public sector. Some methods of public interaction and decision making are familiar and well studied. Others are less so, despite their increasing use in a variety of policy domains and other circumstances. Such is the case with conflict resolution, which is now broadly used across the United States and internationally on multiple levels and by multiple groups with differing aims. This course explores the varied applications of conflict resolution principles to public policy, including negotiated rule making, public sector dispute resolution, mediation, collaborative problem solving, democratic governance, community-based planning and consensus building.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 70071 SOCIETY, TECHNOLOGY AND SECURITY 3 Credit Hours

(Slashed with PACS 60071) This course engages with current debates about the relationship between society, technology, peace and security, focusing particularly on military and dual-use technologies. The course begins by analyzing the literature of how technology shapes societies and societies shape technology. This includes consideration of the way societies influence the emergence and application of particular technologies and how understandings of military technological categories (e.g., pariah weapons, precision weapons) have been socially constructed. The module then examines how states and societies have responded to the policy and governance challenges presented by the development and trade of established weapon categories. This includes analysis of the history of disarmament initiatives, movements and agreements as well as the new field of 'humanitarian disarmament'. It also includes examination of recent initiatives aimed at limiting weapons proliferation and armed violence in conflict-ridden societies. The remainder of the course is devoted to exploring the legal, normative and policy debates about the use of modern and emerging technologies. This includes examination of the governance implications of new developments in fields such as biotechnology, nanotechnology, cyberwarfare and drones.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 70072 ENVIRONMENTAL CHANGE AND CONFLICT 3 Credit Hours

(Slashed with PACS 60072) This course examines the varied theoretical and policy challenges involved in addressing the intersection between changes in the environment; the governance and sustainability of natural resources and ecosystems; and the prevention, management and resolution of conflict. It traces the history and development of environmental security and peacebuilding, building a solid foundation of key theories, terminology and concepts, such as the relationship between natural resources and conflict (including scarcity vs. abundance, access and governance); redefinition of security and securitization of the environment; slow- vs. sudden-onset climate change and displacement; and environmental cooperation of peacekeeping, peacemaking, peacebuilding and contemporary conflict resolution. Students have a working knowledge of important international laws and policies governing the protection of the environment in relation to armed conflict and engage in critical discussions at the intersection of conflict issues and trends of environmental change, such as green militarization and small arms proliferation, environmental crimes and surveillance, fortress conservation and conservation conflicts, the role of gender and youth, human rights and environmental defenders, climate justice and conflict-sensitive climate adaptation. Students apply the knowledge and skills developed throughout the course to the development of environmental security assessments, peace and conflict impact assessments and foresight analyses.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

PACS 81096 INDIVIDUAL INVESTIGATION IN PEACE AND CONFLICT STUDIES 1-3 Credit Hours

(Repeatable for credit) Individualized program of study and literature review of area of particular interest to the student.

Prerequisite: Doctoral standing.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

PACS 81098 RESEARCH IN PEACE AND CONFLICT STUDIES 1-6 Credit Hours

(Repeatable for credit) Individualized, faculty-directed research project. Credit hours may be applied toward meeting degree requirements with department approval.

Prerequisite: Doctoral standing.

Schedule Type: Research

Contact Hours: 3-18 other

Grade Mode: Standard Letter