COLLEGE OF ARTS AND SCIENCES

College of Arts and Sciences
104 Bowman Hall
Kent Campus
330-672-2062
asadvise@kent.edu
www.kent.edu/cas

Mission of the College

It is the mission of the College of Arts and Sciences to deliver a first-rate education dedicated to the traditions and values of the liberal arts. These traditions include developing the skills of critical reasoning, writing, reading and deduction and providing a firm grounding in the theories and methodologies of the humanities, social and natural sciences and mathematics. These values include a commitment to rigorous questioning of principles and practices, intellectual integrity, community responsibility and diversity of perspectives in the pursuit of truth and social justice. Fundamental to a liberal education is the acquisition, preservation and transmission of new ideas and knowledge.

Study within the College of Arts and Sciences broadens and enriches students' intellectual and cultural background. The college provides a core curriculum for all students whatever their major fields or career goals. With specialized and interdisciplinary programs at the undergraduate and graduate levels, the college strives to offer a wide variety of learning and research opportunities to its students, guided by nationally and internationally renowned faculty — faculty as passionate and intent on adding to human understanding as they are to passing this understanding on to future generations. The liberal arts provide both a rich variety of fields of academic specialization and a vital base for professional, creative and technological study.

Students pursuing degrees in the College of Arts and Sciences are introduced to a variety of disciplinary and intellectual perspectives through the college's General Requirements. These requirements provide a solid foundation in essential communications skills and mathematics; a strong and varied background in the humanities, the social sciences and the natural sciences; and, for most students, study of a foreign language as a tool for approaching another culture. These requirements thus supply a broad acquaintance with the traditional liberal arts and a firm basis for more specialized study.

All students in the college select at least one area of academic specialization (major). This area of specialization may be within one of the traditional disciplines, it may be interdisciplinary or it may be self-designed. Students may also pursue a second major area or one or more minor areas of specialization.

In addition to general requirements and the specific requirements within the areas of specialization, students have elective credit hours that may be used to pursue secondary areas of specialization, to explore areas of general interest or to take additional coursework within the area of specialization or in related areas. Elective coursework in the liberal arts provides not only a sound basis for more specialized learning but also intellectual enrichment that is of lasting value to any student in the university.

Study in the liberal arts provides a basis for success in a wide variety of careers. In addition to preparing students for later professional study, it provides communication skills, analytical tools and mental flexibility necessary for success in adapting to changing careers in a changing world. Above all, study in the liberal arts prepares students for a lifetime of learning experiences and for personal and intellectual as well as professional growth.

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 Multidisciplinary Social Sciences and Humanities
- School of Peace and Conflict Studies

Undergraduate Programs

Majors

- Actuarial Mathematics - B.S.
- Africana Studies - B.A.
- 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.
- Botany - B.S.
- Chemistry - B.A.
- Chemistry - B.S.
- Classics - B.A.
- Computer Science - B.A.
- Computer Science - B.S.
- Criminology and Justice Studies - B.A.
- Cybercriminology - B.S.
- Earth Science - B.A.
- Economics - B.A.
- English - B.A.
- Environmental and Conservation Biology - B.S.

- Environmental Studies - B.A.
- French - 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.A.
- Mathematics - B.S.
- Medical Laboratory Science - B.S.
- Neuroscience - B.S.
- Paralegal Studies - B.A.
- Peace and Conflict Studies - B.A.
- Philosophy - B.A.
- Physics - 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 Mathematics
- Applied Statistics
- Arabic
- Bioethics and Health Humanities
- Bioinformatics
- Biological Sciences
- Biology for Environmental Management and Conservation
- Business French
- Business German
- Business Russian
- Business Spanish
- Chemistry
- Chinese
- Classics
- Climate Change
- Computer Science
- Computers and Geosciences
- Criminology and Justice Studies
- Creative Writing
- Cybersecurity Foundations
- Earth Science
- English
- Environment, Peace and Justice
- Environmental Geology
- Environmental Studies
- French
- Forensic Anthropology
- Game Programming
- Geographic Information Science
- Geography
- Geology
- German
- German Studies
- Greek
- History
- Human Disease
- Italian
- Italian Studies
- Japanese
- Jewish Studies
- Latin
- Latin American Studies
- Lesbian, Gay, Bisexual, Transgender and Queer Studies
- Mathematics
- Medical Anthropology
- Microbiology
- Neuroscience
- Paleontology
- Paralegal Studies
- Peace and Conflict Studies
- Philosophy
- Physics
- Political Science
- Pre-Law
- Professional and Technical Writing
- Psychology
- Religion Studies
- Russian
- Russian Studies
- Society, Health and Medicine
- Sociology
- Spanish
- Studies in Globalization, Identity and Space
- 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.
- 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.
- English-Rhetoric and Composition - Ph.D.
- French - M.A.
- Geographic Information Science - M.GISC
- Geography - M.S.
- Geography - Ph.D.
- Geology - M.S.
- History - M.A.
- History - Ph.D.
- Latin - M.A.
- Liberal Studies - L.S.M.
- 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.
- Sociology - M.A.
- Sociology - Ph.D.
- Spanish - M.A.
- Teaching English as a Second Language - M.A.
- Translation - M.A.
- Translation Studies - Ph.D.

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

- Environmental Geographic Information Science
- Geographic Information Science
- 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 - undergraduate
- Washington Program in National Issues

Graduate

- Teaching English as a Second Language Endorsement Preparation - graduate

College Policies
Foreign Language Requirements

In general, students may elect any foreign language taught through the Department of Modern and Classical Language Studies or the Department of Pan-African Studies. However, certain majors, fields of concentration 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, the students should seek the advice of the appropriate department before selecting a language.

The Department of Modern and Classical Language Studies offers courses of study beyond the minimum needed to meet the foreign language requirement in Arabic, Chinese, Greek (classical), Italian and Japanese; however no major is available for them at this time.

Progress Toward Fulfillment

Arts and sciences students are required to begin meeting the foreign language requirement by their third semester of full-time enrollment (that is, no later than upon completing 30 credit hours) and are required to continue to enroll for foreign language courses until the requirement has been completed. Students who transfer to the College of Arts and Sciences from other universities or from other programs at Kent State University with sophomore status are required to begin meeting the foreign language requirement by their second semester of full-time enrollment in the college and must continue to enroll for foreign language courses until the requirement has been completed. Students who fail to meet these stipulations risk unnecessary delays in the completion of their degree programs. The stipulation that arts and sciences students begin meeting the foreign language requirement by their third semester of full-time study applies not only to students with declared majors but also to undeclared students. This includes those students seeking admission to selective programs in other colleges who do not achieve admission to the selective program at the time they achieve sophomore status.

Foreign Language College Requirement, B.A.

Students pursuing the Bachelor of Arts degree in the College of Arts and Sciences must complete 14-16 credit hours of foreign language.[1]
To complete the requirement, students need the equivalent of Elementary I and II in any language, plus one of the following options[2]:

1. Intermediate I and II of the same language
2. Elementary I and II of a second language
3. Any combination of two courses from the following list:
    - Intermediate I of the same language
    - ARAB 21401
    - ASL 19401
    - CHIN 25421
    - MCLS 10001
    - MCLS 20001
    - MCLS 20091
    - MCLS 21417
    - MCLS 21420
    - MCLS 22217
    - MCLS 28403
    - MCLS 28404

[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 fewer 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 14 credit hours and four courses, they will complete remaining credit hours with general electives.

[2] Certain majors, concentrations and minors 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 particular language coursework.

Foreign Language College Requirement, B.S.

- Students pursuing the Bachelor of Science degree in the College of Arts and Sciences 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 Arts and Sciences 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 Arts and Sciences.

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 Arts and Sciences 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 Arts and Sciences 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 Arts and Sciences.

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), Associate 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
- Syed, Idris K. (1991), Professor, M.Ed., Kent State University, 2001

Department of Anthropology Faculty

- Bebber, Michelle R. (2019), Assistant 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), Associate 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), Associate 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
- Bagavandoss, Paul (1993), Associate Professor, Ph.D., University of Michigan-Ann Arbor, 1986
- 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), Associate Professor, Ph.D., University of Amsterdam, 2003
- Clements, Robert J. (1997), Associate Professor, Ph.D., Kent State University, 2004
- Coolen, Lique (2019), Professor
- Costello, David M. (2014), Associate Professor, Ph.D., University of Notre Dame, 2010
- Dankovich, Daniel S. (2010), Associate Lecturer
- 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), Associate Professor, Ph.D., Beijing University of Agriculture , 1994
- Eichler, Sarah E. (2019), Assistant Professor, Ph.D., University of Tennessee, Knoxville
- Eisermann, Kurtis (2002), Assistant 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), Associate Professor, Ph.D., University of Toledo, 2002
- Kim, Woo-Yang (2018), Associate 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), Assistant Professor, Ph.D., Uppsala University, 2016
- Leff, Adam A. (1994), Associate Professor, D.V.M., University of Georgia, 1991
- Leff, Laura G. (1994), Professor, Ph.D., University of Georgia, 1992
- Lehnert, Matthew S. (2012), Associate Professor, Ph.D., University of Florida, 2010
- Lovell, John A. (1995), Associate Professor, Ph.D., Kent State University, 1993
- McDonough, Jennifer A. (2006), Associate 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), Assistant Professor, Univ De Bordeaux, 2003
- Piontkivska, Olena (2005), Professor, Ph.D., Pennsylvania State University, 2003
- Popescu, Daniela C. (2013), Associate 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
- Smith, Gregory A. (2014), Associate Professor, Ph.D., University of Oklahoma, 2007
- Steele, Louise (2012), Associate Professor, Ph.D., Case Western Reserve University, 2002
- Stone, Jonathan F. (2003), Associate Professor, B.S., University of Akron, 1985
- Tinkler, Gregory P. (2013), Associate Professor, Ph.D., Wake Forest University, 2005
- 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
- Vijayaraghavan, Srinivasan (1997), Professor
- 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

- Abeysirigunawardena, 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
- Fenk, Christopher J. (1990), Professor, Ph.D., University of Pittsburgh, 1987
- 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
- Huang, Songping D. (1998), Professor, Ph.D., Michigan State University, 1993
- Konar, Arkaprabha (2019), Assistant Professor, 2019, 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
- Mighion, Jeffrey D. (2017), Assistant Professor, Ph.D., Princeton University, 2014
- 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
- Perera, Roshinee S. (2013), Associate Professor, Ph.D., University of Akron, 2011
- 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
- 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), Associate 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), Assistant Professor, Ph.D., Penn State University, 2014
- Kim, Kwangtaek (2019), Assistant Professor, Ph.D., Purdue University, 2010
- Kim, Jong-Hoon (2017), Assistant 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
- Reed, William E. (2022), Lecturer, M.S., Carnegie Mellon University, 2015
- Samba, Augustine S. (2001), Professor, Ph.D., University of Liverpool, 1983
- Sharma, Gokarna (2015), Associate Professor, Ph.D., Louisiana State University, 2014
- Xu, Lei (2022), Assistant 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), Assistant 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), Assistant Professor, Ph.D, University of Michigan-Ann Arbor, 2016
- 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
- Anderson, Mary A. (2011), Lecturer, M.A., Youngstown State University, 2010
- Baker, Alexis M. (2017), Assistant Professor, Ph.D., Kent State University, 2016
- 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), Associate Lecturer, M.A., Kent State University, 2004
- Ciuba, Gary M. (1986), Professor, Ph.D., Fordham University, 1986
- 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), Associate 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
- Huot, Brian A. (2004), Professor, Ph.D., Indiana University of Pennsylvania, 1988
- 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
- Lieske, Pamela J. (1997), Professor, Ph.D., University of Massachusetts, Amherst, 1996
- 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), Associate 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), Senior Lecturer, M.Ed., George Washington University, 2004
- Sainato, Susan M. (1987), Professor, Ph.D., Kent State University, 2002
- Sanders, Michael T. (1995), Associate Professor, Ph.D., Kent State University, 2006
- Schauffler, 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
- Sloan, Jay D. (2000), Associate Professor, Ph.D., Marquette University, 1999
- 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
- Trogdon, 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
- Kaplan, David H. (1995), Professor, Ph.D., University of Wisconsin-Madison, 1991
- Lee, Jay (1991), Professor, Ph.D., University of Western Ontario, 1989
- 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
- Scholl, Andrew E. (2013), Assistant Professor, Ph.D., Penn State University, 2008
- 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), Associate 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-Pryor, 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
- 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
- Altobelli, Joseph A. (1997), Associate Professor, Ph.D., The Ohio State 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
- Hrubik-Vulanovic, Tatjana (2002), Associate Professor, Ph.D., Kent State University, 2013
- Jahangiri, Jay M. (1994), Professor, Ph.D., University of York, 1986
- Jiafeng, Jin (2014), Lecturer
- Kasturiarachi, Aloysius B. (1995), Associate 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
- Laux, Tracy A. (1990), Senior Lecturer, B.S., Kent State University, 1990
- 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, M.S., Youngstown State University, 1990
- 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), Associate 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
- 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

- Angelone, Erik (2007), Professor, Ph.D., University of Heidelberg, 2006
- 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 Unviersity, 2013
- Bystrova-McIntyre, Tatyana (2002), Professor, Ph.D., Kent State University, 2012
- 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
- De Julio, MaryAnn (1986), Professor, Ph.D., University of Iowa, 1979
- Dunne, Keiran J. (2000), Professor, Ph.D., Pennsylvania State University, 2000
- Dzero, Irina (2010), Assistant Professor, Yale University, 2009
- Ehrman, Radd K. (1982), Professor, Ph.D., University of Illinois-Chicago, 1982
- 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), Associate 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), Associate 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 Unviersity, 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
- 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
- Kim, Jung-Yeup (2008), Associate Professor, Ph.D., University of Hawaii-Manoa, 2008
- 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
- 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
- Margetis, Spyridon (1997), Professor, Ph.D., Goethe Universitat, 1991
- Minnick, Stephen A. (2003), Professor, Ph.D., Pennsylvania State University, 2003
- 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), Assistant Professor, Ph.D., Kent State University, 2017
- Yang, Deng-Ke (1989), Professor, Ph.D., University of Hawaii at Manoa, 1989
- Yokoyama, Hiroshi (2009), Professor, Ph.D., Tokyo International University, 1987

Department of Political Science Faculty

- 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), Associate Professor, Ph.D., Duke University, 2002
- Hawes, Daniel P. (2008), Professor, Ph.D., Texas A&M University, Main Campus, 2008
- McLaughlin, Danielle (2022), Assistant Professor, Ph.D., University of Cincinnati, 2021
- Miller, Patrick R. (2023), Associate Professor
- 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

- Bartholomew, Christie L. (2003), Assistant Professor, Ph.D., Kent State University, 2014
- 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), Associate Professor, Ph.D., University at Albany-SUNY, 2004
- Ciesla, Shannon N. (2007), Associate 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
- Grau, Josefina M. (1994), Associate Professor, Ph.D., University of Illinois-Chicago, 1992
- 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), Associate Professor, Ph.D., University of Wisconsin-Milwaukee, 2009
- Sciartelli, 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
- 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), Associate Professor, Ph.D., Stanford University, 2015
- Foster, Michelle L. (2010), Associate Professor, 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
- 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), Associate Professor, Ph.D., Florida State University, 2008
- Pollock, Joshua W. (2014), Associate Professor, Ph.D., University of Akron, 2014
- 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
- Schiller, J. Zach (2006), Assistant Professor, Ph.D., University of California-Davis, 2005
- 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
- Kessler, Chaya (2009), Senior Lecturer, M.A., Youngstown State University, 2005
- Mazzei, Julie M. (2004), Associate 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), Associate 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), Assistant Professor
- 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), Associate Professor, Ph.D., Rutgers University, 2016
- Solomon, Johanna A. (2017), Assistant Professor, Ph.D., University of California, Irvine, 2015

College of Arts and Sciences

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

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; optomechancial 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 NANOBIOTECHNOLOGY 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; optomechancial 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 positinal order. Such materials include thermotropic smetic, 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 NANOBIOTECHNOLOGY 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 (DIVG) (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: Diversity Global, 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 10101 ELEMENTARY KISWAHILI I 4 Credit Hours
This course is an introduction to Kiswahili in which students will learn the essentials of speaking, reading and writing the most extensively used language in East Africa. Kiswahili is one of the major African languages spoken and used by more than one hundred (100) million Africans who live mainly in Eastern, Central, as well as some parts of Southern nations of Africa. These countries include Tanzania, Kenya, Uganda, Somalia, Malawi, Rwanda, Burundi, Zaire, Mozambique, Northern Zambia, Northern Malagasy Republic, and the Comoro Islands.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

AFS 10102 ELEMENTARY KISWAHILI II 4 Credit Hours
Continuation of AFS 10101, aimed at advancing student knowledge and communication skills in Kiswahili by introducing Kiswahili literature, short narratives, proverbs, folktales.
Prerequisite: AFS 10101.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

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: AFS 10102.
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 20200 RECOVERING THE PAST: KENT TO MEMPHIS (ELR) 3 Credit Hours
Examines relevance of John Brown, Frederick Loudin and Fisk Jubilee Singers, and Ida B. Wells anti-lynching campaign today. Students travel to local Brown and Loudin sites, Harper's Ferry and Memphis.
Prerequisite: None.
Schedule Type: Field Experience, Lecture
Contact Hours: 2 lecture, 1 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

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 (DIVG) (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: Diversity Global, Kent Core Humanities

AFS 23002 BLACK EXPERIENCE II: 1865 TO PRESENT (DIVD) (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: Diversity Domestic, 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 (DIVG) 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
Attributes: Diversity Global

AFS 25200 EAST AFRICAN-KISWAHILI CULTURES 3 Credit Hours
Students learn about the relationship between the Kiswahili language and the cultures of East African peoples, especially those in Malawi, Mozambique, Zaire, Zambia and Zimbabwe. This includes geographical, historical and sociological perspectives and an analysis of common cultural elements (music, literature, proverbs).
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

AFS 26000 LEGACIES OF SLAVERY 3 Credit Hours
Examines global African legacies of slavery through historical and contemporary experiences and perspectives. This course will explore disenfranchment of people of African descent as a legacy of slavery related to economics, politics, society, culture, policy and the law.
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 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 Senufu and many more.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

AFS 30010 AFRICAN AND AFRICAN-AMERICAN PHILOSOPHIES (DIVD) 3 Credit Hours
(Cross-listed with PHIL 31070) Exploration of philosophical issues in African and African-American or Black thought systems. Topics may include the examination of the issue of the existence of a Black philosophy, the nature of traditional African knowledge, beliefs about personhood, the basis and rationality of witchcraft or other metaphysical beliefs, communalism, the nature of Black moral and aesthetic values, and contemporary analysis of race, racism, slavery, civil rights, pan-Africanism, and criticisms of colonialism, Black development, democratic governance and social policies regarding Blacks. 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
Attributes: Diversity Domestic

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 31092 PRACTICUM IN AFRICAN THEATRE ARTS (ELR) 3-6 Credit Hours
(Repeatable for credit) Exposes students to fundamental techniques of stage through auditory, visual and physical participation. (Students are evaluated in performance and related theater activities.)
Prerequisite: None.
Schedule Type: Practical Experience
Contact Hours: 3-6 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

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 (DIVG) 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, Cesaire, Senghor, Soyinka and many others.
Prerequisite: ENG 11011 or HONR 10197.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

AFS 33100 THE AFRICAN AMERICAN FAMILY: HISTORICAL PERSPECTIVES (DIVD) 3 Credit Hours
Examines the social, political, cultural and historical factors that have influenced the development of African-American family organization from African shores through the Black experience in the United States.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic

AFS 33101 AFRICAN AMERICAN HISTORY: SLAVERY TO FREEDOM 3 Credit Hours
(Cross-listed with HIST 31080) 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

AFS 33110 BLACK WOMEN, CULTURE AND SOCIETY: HISTORICAL PERSPECTIVES (DIVD) 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
Attributes: Diversity Domestic

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 (DIVD) 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
Attributes: Diversity Domestic

AFS 33200 ANCIENT AFRICAN CIVILIZATIONS 3 Credit Hours
Examines the history of ancient African civilizations and their contributions to world history.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

AFS 33310 AFRO-LATINX COMMUNITIES IN THE U.S. (DIVD) 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
Attributes: Diversity Domestic

AFS 34000 INTRODUCTION TO AFRICAN WORLD VIEW (DIVG) 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
Attributes: Diversity Global

AFS 34100 ISLAMIC WEST AFRICA 3 Credit Hours
This course familiarizes students with the cultural and historical specificities of Islamic communities in West Africa. Beginning with the introduction of Islam into West Africa in the eighth century, this course takes a multi-disciplinary point of view and covers contemporary political issues as well as historical topics. Students are provided the analytical tools and documentation to understand contemporary religious issues in West Africa and the diversity in expression of thought and practice of Islamic West Africa.
Prerequisite: Sophomore standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

AFS 34200 BLACK MUSIC REVISITED 3 Credit Hours
This is a survey course in the appreciation of, as well as an investigation into, that Great Black Tradition in Music. Students explore contemporary Black music from Africa into the New World and consider African world music from the Blues, Gospel, Jazz to Bebop, Rhythm & Blues, Hip Hop and Afro-Beat to Reggae. Students also learn the significance of local and individual artists.
Prerequisite: AFS 23001 or AFS 23002.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

AFS 35200 AFRICAN SOCIAL AND POLITICAL SYSTEMS 3 Credit Hours
An African-centered focus on traditional African institutions as these interact with the Jihad Movements, Western European incursion, the slave trade, colonialism, independence movements and contemporary issues.
Prerequisite: Junior standing.
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 (DIVG) 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
Attributes: Diversity Global

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 40120 CONTEMPORARY ISSUES IN AFRICAN-AMERICAN EDUCATION 3 Credit Hours
This course examines the interrelationship of contemporary issues and the education of people of African descent.
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 (DIVG) (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: Diversity Global, 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 (DIVG) (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: Diversity Global, 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 38490 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 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 (DIVG) (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: Diversity Global, Experiential Learning Requirement

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 48212 KINSHIP AND SOCIAL ORGANIZATION (DIVG) 3 Credit Hours
(Slashed with ANTH 58212) This course employs cross-cultural approaches to the understanding of marriage, family organization, descent and kinship systems.
Prerequisite: ANTH 18210.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

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 (DIVG) 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
Attributes: Diversity Global

ANTH 48250 MEDICAL ANTHROPOLOGY (DIVG) 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
Attributes: Diversity Global

ANTH 48262 PEOPLES AND CULTURES OF AMAZONIA (DIVG) 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
Attributes: Diversity Global

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 48360 ANTHROPOLOGY OF GENDER AND SEXUALITY (DIVG) 3 Credit Hours
(Slashed with ANTH 58360) This course examines how people experience gender – what it means to be a man or woman – and sexuality in a variety of historical and cultural contexts. It explores how gender and sexuality intersect with other categories such as race, social class, and other markers of self and societal status. Students will gain a greater sense of the diversity of human social practices and beliefs regarding gender and sexuality across cultures. 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
Attributes: Diversity Global

ANTH 48425 ANCIENT MESOAMERICA 3 Credit Hours
(Slashed with ANTH 58425) Comparative analysis of Mesoamerican societies from the arrival of the first Americans over 10,000 years ago to European colonization in the 16th century A.D., including major pre-Columbian civilizations.
Prerequisite: ANTH 18420.
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 48630 PACIFIC ISLAND CULTURES (DIVG) 3 Credit Hours
Peoples and characteristics of culture areas of Pacific Islands, including Polynesia, Melanesia and Micronesia with analysis of several representative cultures from these areas.
Prerequisite: ANTH 18210.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

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 48830 HUMAN BEHAVIORAL ECOLOGY AND EVOLUTION (DIVG) (ELR) (WIC) 3 Credit Hours
(Slashed with ANTH 58830) How "unique" is human behavior? Using an evolutionary perspective, we will explore the evolution of human mating systems and parental investment.
Prerequisite: ANTH 18630 or BSCI 30156.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Experiential Learning Requirement, Writing Intensive Course

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 (DIVG) (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: Diversity Global, Experiential Learning Requirement

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 58212 KINSHIP AND SOCIAL ORGANIZATION 3 Credit Hours
(Slashed with ANTH 48212) This course employs cross-cultural approaches to the understanding of marriage, family organization, descent and kinship system.
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 58360 ANTHROPOLOGY OF GENDER AND SEXUALITY 3 Credit Hours
(Slashed with ANTH 48360) This course examines how people experience gender – what it means to be a man or woman – and sexuality in a variety of historical and cultural contexts. It explores how gender and sexuality intersect with other categories such as race, social class, and other markers of self and societal status. Students will gain a greater sense of the diversity of human social practices and beliefs regarding gender and sexuality across cultures.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ANTH 58425 ANCIENT MESOAMERICA 3 Credit Hours
(Slashed with ANTH 48425) Comparative analysis of Mesoamerican societies from the arrival of the first Americans over 10,000 years ago to European colonization in the 16th century A.D., including major pre-Columbian civilizations.
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 58830 HUMAN BEHAVIORAL ECOLOGY AND EVOLUTION 3 Credit Hours
(Slashed with ANTH 48830) How "unique" is human behavior? Using an evolutionary perspective we will explore the evolution of human mating systems and parental investment.
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 68241 ETHNIC GROUP ANALYSIS: PACIFIC ISLANDS 3 Credit Hours
Peoples and characteristics of culture areas of the Pacific Islands, including Polynesia, Melanesia and Micronesia with analysis of several representative cultures from these areas.
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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Three hours of lecture and three hours of lab weekly. 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 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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
To provide 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: BA Biology, BS Biology, BS Botany, BS Environmental and Conservation Biology, BS Medical Technology, BS Biotechnology, BS 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Laboratory Science, 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. Botany, B.S. Environmental and Conservation 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: Minimum C- grade in BSCI 20019 (or BSCI 10110 and BSCI 10120); 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 BSCI 10120; and 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: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120.
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 of organisms including their structure, physiology, genetics, pathogenicity, classification, mechanisms of cultivation and control. Lecture three hours, lab three hours weekly.
Prerequisite: Minimum C- grade in BSCI 10110; and BSCI 30140; and CHEM 10060 or CHEM 11060; and CHEM 10061, CHEM 10062 and CHEM 10063.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 3 lecture, 1 lab
Grade Mode: Standard Letter

BSCI 30189 SCIENTIFIC INQUIRY AND OBSERVATION OF THE NATURAL WORLD (DIVG) (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: Diversity Global, 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; 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 10060 or CHEM 11060; and CHEM 10062.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 6 lab
Grade Mode: Standard Letter

BSCI 30270 GENERAL PLANT BIOLOGY 3 Credit Hours
Covers all topics in modern plant biology, including molecular and cellular biology, physiology, anatomy, development, ecology, evolution and diversity.
Prerequisite: Minimum C- grades in BSCI 10110 and BSCI 10120.
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 30275 LOCAL FLORA (ELR) 4 Credit Hours
Identification and field study of local plants: native, naturalized and cultivated.
Prerequisite: Minimum C- grade in BSCI 10110.
Schedule Type: Laboratory, Lecture
Contact Hours: 2 lecture, 6 lab
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

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 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. Lecture three hours, lab three hours weekly.
Prerequisite: Minimum C- grade in BSCI 10110.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 lab
Grade Mode: Standard Letter

BSCI 30361 BIOGEOGRAPHY 3 Credit Hours
Geographical distribution of biotic communities with special reference to North America and to their environmental control.
Prerequisite: Minimum C- grade in the following courses BSCI 10110 and 10120.
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: 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. Lecture three hours, lab three hours weekly.
Prerequisite: Minimum C- grade in BSCI 10110 or 10120.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 lab
Grade Mode: Standard Letter

BSCI 30520 INTRODUCTION TO NEUROSCIENCE 3 Credit Hours
Basic principles in neuroscience from the cellular to systems level. Covers how the nervous system is organized, how it detects sensory stimuli to create a mental representation of their environment and output pathways by which the nervous system can control movement, hormone levels and physiological processes.
Prerequisite: BSCI 30140.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

BSCI 30560 INVERTEBRATE ZOOLOGY 4 Credit Hours
Survey of the animal kingdom emphasizing evolutionary developments. Three-hour lecture and three-hour lab weekly.
Prerequisite: Minimum C- grade in the following courses BSCI 10110 and 10120.
Schedule Type: Laboratory, Lecture
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. Lecture three hours, lab three hours weekly.
Prerequisite: Minimum C- grade in the following courses BSCI 10110 and 10120; and 10 hours of Biology courses.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 lab
Grade Mode: Standard Letter

BSCI 30582 ORNITHOLOGY 4 Credit Hours
Field study of natural history of local birds. Lecture three hours, lab three hours weekly.
Prerequisite: Minimum C- grade in the following courses BSCI 10110 and 10120.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 lab
Grade Mode: Standard Letter

BSCI 30789 FEASTS AND PLAGUES: THE SCIENCE OF ITALIAN FOOD, WINE AND DISEASE - INTERNATIONAL EXPERIENCE (DIVG) (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: Diversity Global, Experiential Learning Requirement

BSCI 30889 BEAUTY AND THE BRAIN: EXPLORING FLORENCE THROUGH THE SENSES (DIVG) (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: Diversity Global, 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. Botany, B.S. Environmental and Conservation Biology, B.S. Medical Technology, 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 40104 INTRODUCTION TO BEEKEEPING 2 Credit Hours
(Slashed with BSCI 50104) Covers basic beekeeping practices and provides students with an in-depth understanding of the honey bee colony through participation in hands-on activities, observation and experimentation.
Prerequisite: BSCI 10110 and 10120 with minimum C- grades; and junior or senior standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 2 lab
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. Lecture three hours weekly.
Prerequisite: BSCI 30140 and CHEM 20481 or 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: Minimum B grades in the following courses BSCI 30156 and BSCI 30140; and senior standing.
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 in 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 10060; and CHEM 10061; and CHEM 10062; and CHEM 10063.
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 in the forefront of future biomedical research. Emphasis on a review of primary literature.
Prerequisite: BSCI 30156 and BSCI 30140; and junior or senior 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, recombination, genetic transcription and translation, 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 40166 ENVIRONMENTAL SENSOR TECHNOLOGY 2 Credit Hours
(Slashed with BSCI 50166 and BSCI 70166) Provides learning experiences in the field of environmental wireless sensor technology for performing both isolated and collaborative tasks. Students will use practical tools for WST design.
Prerequisite: Special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

BSCI 40170 STREAM BIOLOGY 3 Credit Hours
(Slashed with BSCI 50170 and BSCI 70170) Study of the physical conditions in streams and the biology and ecology of stream-inhabiting organisms. Lecture two hours, lab three hours weekly.
Prerequisite: Minimum C- grade in the following course BSCI 10110.
Schedule Type: Laboratory, Lecture
Contact Hours: 2 lecture, 3 lab
Grade Mode: Standard Letter

BSCI 40174 IMMUNOLOGY 3 Credit Hours
(Slashed with BSCI 50174 and BSCI 70174) Survey of the mammalian host responses to self and non-self with emphasis on the cellular and molecular mechanisms by which innate and acquired immunity result. Experimental design and data analyses are related to current methodologies used to study immunology.
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 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 40221 ECOLOGICAL GENOMICS 3 Credit Hours
(Slashed with BSCI 50221 and BSCI 70221) Covers principles, concepts and techniques of ecological genomics, emphasizing the application of genomics to ecology and biogeochemistry and using genomic, metagenomic and metatranscriptomic data.
Prerequisite: BSCI 30140; and BSCI 30156; and BSCI 30360.
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 will be used to address fundamental questions in the biological sciences. Laboratory exercises will give experience with spreadsheet and statistical software used by practicing biologists.
Prerequisite: Minimum C- grade in BSCI 10110 or BSCI 10120; and minimum 55 ALEKS math score, or MATH 10675 or MATH 10775 or MATH 11010 with minimum C- grade.
Schedule Type: 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
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 in plant science are recommended prior to taking this course.
Prerequisite: Minimum C grade in BSCI 10110 and BSCI 10120.
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 will be emphasized. Lecture two hours, lab six hours weekly.
Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120.
Schedule Type: Laboratory, Lecture
Contact Hours: 2 lecture, 6 lab
Grade Mode: Standard Letter

BSCI 40273 INTRODUCTION TO MYCOLOGY 3 Credit Hours
(Slashed with BSCI 50273 and BSCI 70273) Introduces key features defining the fungi. Topics include anatomical and morphological features, reproductive strategies, identification, and community interactions.
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 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 40341 STEM CELL BIOLOGY: PRINCIPLES AND APPLICATIONS 3 Credit Hours
(Slashed with BSCI 50341 and BSCI 70341) Examination of stem cells from various tissues, molecular mechanism of stem cell differentiation, and use of stem cells in clinical applications.
Prerequisite: BSCI 30140.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

BSCI 40360 ICHTHYOLOGY 4 Credit Hours
Basic biology, natural history, behavior and ecology of the fishes. Three hour lecture and three hour lab weekly.
Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120; and junior standing.
Schedule Type: 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: Minimum C- grade in BSCI 10110.
Schedule Type: Lecture
Contact Hours: 3 lecture
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. Lecture 3 hours, lab 3 hours weekly.
Prerequisite: Minimum C- grade in BSCI 10110; and 4 hours of Biology coursework.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 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) The course will cover all steps of the development and implementation of field-based research in South African environments, including design and analysis. Students will write a report, present their research, apply data management and statistical tests (including contingency tables, basic t-tests, ANOVA and regression techniques) appropriate for field courses, and develop scientific graphs and figures.
Prerequisite: BSCI 40377.
Schedule Type: Laboratory, Lecture
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) 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. In this course, we explore elemental cycles in 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 BSCI 10110 and BSCI 10120; or minimum C grade in ESCI 11041 or ESCI 11043; and minimum C grade in 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 (DIVG) (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: Diversity Global, 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: BSCI 30140; CHEM 10060, 10061, 10062 and 10063.
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 2 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; and BSCI 30520 or BSCI 40430 or PSYC 41363.
Schedule Type: Lecture
Contact Hours: 2 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, the functions they might serve, and the interplay among the social, ecological and physiological mechanisms that regulate their occurrence.
Prerequisite: Minimum C- grade in BSCI 10110 and BSCI 10120; 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. Lecture two hours, lab three hours weekly.
Prerequisite: Minimum C- grade in the following courses BSCI 10110 and BSCI 10120; and BSCI 30140.
Schedule Type: Laboratory, Lecture
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 40520 BEHAVIORAL EVOLUTION (WIC) 3 Credit Hours
(Slashed with BSCI 50520 and BSCI 70520) Examination of how behavior contributes to survival and reproduction in an ecological context. We consider how behavior may have evolved in a wide range of animals.
Prerequisite: BSCI 40163.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

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 except birds. Lecture three hours, lab and field three 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: 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 41110 BIOPHOTONICS 3 Credit Hours
(Cross-listed with CHEM 41010 and PHY 41010)(Slashed with BSCI 51110, CHEM 51010 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 microcopy.
Prerequisite: Special approval.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 6 lab
Grade Mode: Standard Letter

BSCI 41120 BIOLOGICAL LIGHT MICROSCOPY 3 Credit Hours
(Slashed with BSCI 51120 and BSCI 71120) Theoretical and practical information on the operation of optical microscopes, the application of transmission and fluorescence microscopy to biological specimens, and analysis of microscopic images.
Prerequisite: BSCI 30140.
Schedule Type: Lecture
Contact Hours: 3 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 50104 INTRODUCTION TO BEEKEEPING 2 Credit Hours
(Slashed with BSCI 40104) Covers basic beekeeping practices and provides students with an in-depth understanding of the honey bee colony through participation in hands-on activities, observation and experimentation. This course may not be used to fulfill degree requirements in the MS or MA Biology programs.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 2 lab
Grade Mode: Standard Letter

BSCI 50105 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 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. Lecture three hours weekly.
Prerequisite: BSCI 40430; and 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. This course will examine 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 in 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 in 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, recombination, genetic transcription and translation, 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 50166 ENVIRONMENTAL SENSOR TECHNOLOGY 2 Credit Hours
(Slashed with BSCI 40166 and BSCI 70166) Provides learning experiences in the field of environmental wireless sensor technology for performing both isolated and collaborative tasks. Students will use practical tools for WST design.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

BSCI 50170 STREAM BIOLOGY 3 Credit Hours
(Slashed with BSCI 40170 and BSCI 70170) Identification, biology and ecology of stream-inhabiting organisms. Lecture two hours, laboratory three hours weekly.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture
Contact Hours: 2 lecture, 1 lab
Grade Mode: Standard Letter

BSCI 50174 IMMUNOLOGY 3 Credit Hours
(Slashed with BSCI 40174 and BSCI 70174) Survey of the mammalian host responses to self and non-self with emphasis on the cellular and molecular mechanisms by which innate and acquired immunity result. Experimental design and data analyses are related to current methodologies used to study immunology. Lecture three hours weekly. Graduate standing.
Prerequisite: BSCI 30171 and CHEM 10060, 10061 and 10062.
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 50221 ECOLOGICAL GENOMICS 3 Credit Hours
(Slashed with BSCI 40221 and BSCI 70221) Covers principles, concepts and techniques of ecological genomics, emphasizing the application of genomics to ecology and biogeochemistry and using genomic, metagenomic, and metatranscriptomic data.
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 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 will be emphasized. Lecture two hours, laboratory six hours weekly.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 lab
Grade Mode: Standard Letter

BSCI 50273 INTRODUCTION TO MYCOLOGY 3 Credit Hours
(Slashed with BSCI 40273 and BSCI 70273) Introduces the key features defining the fungi. Topics include anatomical and morphological features, reproductive strategies, identification, and community interactions.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 50341 STEM CELL BIOLOGY: PRINCIPLES AND APPLICATIONS 3 Credit Hours
(Slashed with BSCI 40341 and BSCI 70341) Examination of stem cells from various tissues, molecular mechanism of stem cell differentiation, and use of stem cells in clinical applications.
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 70360) Basic biology, natural history, behavior and ecology of the fishes. Three hour lecture and three hour lab weekly.
Prerequisite: Graduate standing.
Schedule Type: 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: Lecture
Contact Hours: 3 lecture
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. Lecture 3 hours lab 3 hours weekly.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 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) The course will cover all steps of the development and implementation of field-based research in South African environments, including design and analysis. Students will write a report, present their research, apply data management and statistical tests (including contingency tables, basic t-tests, ANOVA and regression techniques) appropriate for field courses, and develop scientific graphs and figures.
Prerequisite: Graduate standing and BSCI 50377.
Schedule Type: Laboratory, Lecture
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) 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. In this course, we explore elemental cycles in 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 2 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. Students enrolling at the graduate level should have some background in neurobiology and genetics.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 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, the functions they might serve, and the 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. Lecture two hours, laboratory three hours weekly.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture
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 50520 BEHAVIORAL EVOLUTION 3 Credit Hours
(Slashed with BSCI 40520 and BSCI 70520) Examination of how behavior contributes to survival and reproduction in an ecological context. We consider how behavior may have evolved in a wide range of animals. Students enrolled at the graduate level in the course are expected to have had a course in evolution.
Prerequisite: Graduate standing; and special approval.
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 except birds. Lecture three hours, laboratory and field three hours weekly.
Prerequisite: 4 hours of Biology; and graduate standing.
Schedule Type: Laboratory, Lecture
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 51110 BIOPHOTONICS 3 Credit Hours
(Cross-listed with CHEM 51010 and PHY 51010)(Slashed with BSCI 41110, CHEM 41010 and PHY 41010) Interdisciplinary overview of the basics of biophotonics and 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

BSCI 51120 BIOLOGICAL LIGHT MICROSCOPY 3 Credit Hours
(Slashed with BSCI 41120 and BSCI 71120) Theoretical and practical information on the operation of optical microscopes, the application of transmission and fluorescence microscopy to biological specimens, and analysis of microscopic images.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 CAREERS AND PROFESSIONAL SKILLS FOR BIOLOGISTS 2 Credit Hours
(Slashed with BSCI 80110) This course helps prepare graduate students for advanced careers in science. Students will 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, 0 lab, 0 other
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 60145 MEDICAL GENOMICS 3 Credit Hours
(Slashed with BSCI 80145) Explores the relationship and contribution of genetics and genomics to healthcare issues, including disease susceptibility and therapeutic efficacy. Up-to-date genomics concepts and their applications to health care and the challenges of personalized medicine including genetic analyses (e.g., linkage and estimating population risks), ethical issues in genetic testing and therapy, genetic basis of disease processes (e.g., neurological, cardiovascular and neoplastic diseases) and epigenetic processes (that may link the environment to the risk of chronic diseases) are covered. This course requires an understanding of genetics and physiology; students should contact the Department of Biological Sciences to determine if they have the requisite prior training.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 3 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. Lecture three hours weekly.
Prerequisite: BSCI 40430; and 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. This course will examine 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 in 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 in 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, recombination, genetic transcription and translation, 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 70166 ENVIRONMENTAL SENSOR TECHNOLOGY 2 Credit Hours
(Slashed with BSCI 40166 and BSCI 50166) Provides learning experiences in the field of environmental wireless sensor technology for performing both isolated and collaborative tasks. Students will use practical tools for WST design.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

BSCI 70170 STREAM BIOLOGY 3 Credit Hours
(Slashed with BSCI 40170 and BSCI 50170) Identification, biology and ecology of stream-inhabiting organisms. Lecture two, laboratory three hours weekly.
Prerequisite: Doctoral standing.
Schedule Type: Laboratory, Lecture
Contact Hours: 2 lecture, 1 lab
Grade Mode: Standard Letter

BSCI 70174 IMMUNOLOGY 3 Credit Hours
(Slashed with BSCI 40174 and BSCI 50174) Survey of the mammalian host responses to self and non-self with emphasis on the cellular and molecular mechanisms by which innate and acquired immunity result. Experimental design and data analyses are related to current methodologies used to study immunology. Lecture three hours weekly. Doctoral standing.
Prerequisite: BSCI 30171 and CHEM 10060, 10061 and 10062.
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 70221 ECOLOGICAL GENOMICS 3 Credit Hours
(Slashed with BSCI 40221 and BSCI 50221) Covers principles, concepts and techniques of ecological genomics, emphasizing the application of genomics to ecology and biogeochemistry and using genomic, metagenomic and metatranscriptomic data.
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 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 will be emphasized. Lecture two hours, laboratory six hours weekly.
Prerequisite: Doctoral standing.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 0 lab
Grade Mode: Standard Letter

BSCI 70273 INTRODUCTION TO MYCOLOGY 3 Credit Hours
(Slashed with BSCI 40273 and BSCI 50273) Introduces the key features defining the fungi. Topics include anatomical and morphological features, reproductive strategies, identification, and community interactions.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 70341 STEM CELL BIOLOGY: PRINCIPLES AND APPLICATIONS 3 Credit Hours
(Slashed with BSCI 40341 and BSCI 50341) Examination of stem cells from various tissues, molecular mechanism of stem cell differentiation, and use of stem cells in clinical applications.
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. Three hour lecture and three hour lab weekly.
Prerequisite: Doctoral standing.
Schedule Type: 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: Lecture
Contact Hours: 3 lecture
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. Lecture 3 hours, lab 3 hours weekly.
Prerequisite: Doctoral standing.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 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) The course will cover all steps of the development and implementation of field-based research in South African environments, including design and analysis. Students will write a report, present their research, apply data management and statistical tests (including contingency tables, basic t-tests, ANOVA and regression techniques) appropriate for field courses, and develop scientific graphs and figures.
Prerequisite: Doctoral standing and BSCI 70377.
Schedule Type: Laboratory, Lecture
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) 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. In this course, we explore elemental cycles in 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 2 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. Students enrolling at the graduate level should have some background in neurobiology and genetics.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 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, the functions they might serve, and the 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 mammalian body in relation to function. Lecture two hours laboratory three hours weekly.
Prerequisite: 4 hours of biology; and doctoral standing.
Schedule Type: Laboratory, Lecture
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 70520 BEHAVIORAL EVOLUTION 3 Credit Hours
(Slashed with BSCI 40520 and BSCI 50520) Examination of how behavior contributes to survival and reproduction in an ecological context. We consider how behavior may have evolved in a wide range of animals. Students enrolled at the graduate level will be expected to have had a course in evolution.
Prerequisite: Doctoral standing; and special approval.
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 except birds. Lecture three hours laboratory and field three hours weekly.
Prerequisite: 4 hours of Biology; and doctoral standing.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 3 lab
Grade Mode: Standard Letter

BSCI 70558 MAMMALOGY 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 71120 BIOLOGICAL LIGHT MICROSCOPY 3 Credit Hours
(Slashed with BSCI 41120 and BSCI 51120) Theoretical and practical information on the operation of optical microscopes, the application of transmission and fluorescence microscopy to biological specimens, and analysis of microscopic images.
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 CAREERS AND PROFESSIONAL SKILLS FOR BIOLOGISTS 2 Credit Hours
(Slashed with BSCI 60110) This course helps prepare graduate students for advanced careers in science. Students will 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, 0 lab, 0 other
Grade Mode: Satisfactory/Unsatisfactory

BSCI 80145 MEDICAL GENOMICS 3 Credit Hours
(Slashed with BSCI 60145) Explores the relationship and contribution of genetics and genomics to healthcare issues, including disease susceptibility and therapeutic efficacy. Up-to-date genomics concepts and their applications to health care and the challenges of personalized medicine including genetic analyses (e.g., linkage and estimating population risks), ethical issues in genetic testing and therapy, genetic basis of disease processes (e.g., neurological, cardiovascular and neoplastic diseases) and epigenetic processes (that may link the environment to the risk of chronic diseases) are covered. This course requires an understanding of genetics and physiology; students should contact the Department of Biological Sciences to determine if they have the requisite prior training.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 10060 GENERAL CHEMISTRY I (KBS) 4 Credit Hours
(Equivalent to CHEM 11060) This course is a college-level chemistry course for science majors, focusing on fundamental concepts and the development of problem-solving strategies and critical thinking. Students will be introduced to a variety of concepts in modern chemistry, emphasizing stoichiometry, introduction to chemical reactions, thermochemistry, atomic structure, periodicity, molecular structure, chemical bonding, and behavior of gases. Classroom time will be 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 10060 or CHEM 10970 or CHEM 11060.
Prerequisite: Minimum 67 ALEKS math score or higher; or ACT MATH score of 27 or higher; or minimum C grade in the following courses: MATH 11010 or MATH 10775 or MATH 10675 or MATH 11009 or MATH 10772.
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 10061 or CHEM 10971.
Prerequisite: Minimum C grade in either 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. Three hours weekly.
Pre/corequisite: 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 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 course is a college-level chemistry course for science majors with extended time devoted to fundamental concepts and the development of problem-solving strategies and critical thinking. Students will be introduced to a variety of concepts in modern chemistry, emphasizing stoichiometry, introduction to chemical reactions, thermochemistry, atomic structure, periodicity, molecular structure, chemical bonding, and behavior of gases. This course includes 5 lecture sessions and 1 recitation session. Classroom time will be divided into lectures, discussions, and problem-solving activities to enable students to develop both foundational knowledge and analytical skills. Recitation sessions will 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: ALEKS math score of 45 or higher and a pre/co-requisite of MATH 11010 or MATH 10775 or MATH 11009; or a prerequisite of MATH 10675 with a minimum C grade or MATH 10772 with a minimum C grade.
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 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 Analytic 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 3 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: Minimum C grade in CHEM 10061 or CHEM 10971.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: TAG Science

CHEM 30482 ORGANIC CHEMISTRY II 3 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: Minimum C grade in CHEM 30481.
Schedule Type: Lecture
Contact Hours: 3 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) 1-10 Credit Hours
(Repeatable for credit)For departmental honors may be started summer prior to senior year. Register each semester during senior year. Minimum total credit 5-hours.
Prerequisite: Departmental and honors college approval.
Schedule Type: Senior Project/Honors Thesis
Contact Hours: 1-10 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: Lecture
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 2 Credit Hours
(Slashed with CHEM 50302) Physical techniques in 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.
Prerequisite: CHEM 30301.
Schedule Type: Lecture
Contact Hours: 2 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 octahedra 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 1 Credit Hour
(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: 1 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 biomacro-molecules 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 2 Credit Hours
(Slashed with CHEM 40302) Physical techniques in 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.
Prerequisite: CHEM 30301; and graduate standing.
Schedule Type: Lecture
Contact Hours: 2 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 1 Credit Hour
(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: 1 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
Capstone project in the form of literature reviews or research projects on topics in chemistry, biochemistry, or chemical education.
Prerequisite: Graduate standing.
Schedule Type: Master's Project
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 biomacro-molecules 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 infraret, 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 1 Credit Hour
(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: 1 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 10001 COMPUTER LITERACY 3 Credit Hours
Introduction to history, language, procedures, applications, abuses and impact of computers. Hands-on experience with microcomputers. Not open to students with previous experience.
Prerequisite: None.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

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. Three-credit lecture with one-credit lab.
Prerequisite: None.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 lecture, 1 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, introduction to recursion and an introduction to object oriented-concepts.
Prerequisite: Minimum 67 ALEKS math score or minimum C grade in one of the following courses MATH 11010 or MATH 10775 or MATH 10675; or one of the following courses MATH 11022 or MATH 12002 or MATH 12011.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 3 lecture, 3 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.
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: 1.5 lecture, 1.5 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 an introduction to object oriented-concepts.
Prerequisite: Minimum C grade in CS 13011.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1.5 lecture, 1.5 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 the students to advanced computer programming design, and development with main focus on data structures and abstraction using Python. Students will learn basic object oriented and GUI programming and graph algorithms applications.
Prerequisite: CS 10062.
Schedule Type: 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 33011 SPEED PROGRAMMING TECHNIQUES 3 Credit Hours
Discussion and practice of pertinent aspects related to programming under time constraints.
Prerequisite: CS 23001.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

CS 33092 SPEED PROGRAMMING PRACTICUM (ELR) 2 Credit Hours
(Repeatable for credit) Practice of pertinent aspects from CS 33011.
Prerequisite: CS 33011.
Schedule Type: Practical Experience
Contact Hours: 2 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

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 33223 UNIX TOOLS 3 Credit Hours
Course will cover UNIX operating system environment topics that will make the user more productive. Topics will include the user environment, shells, files, the file system, editors, scripting languages, document processing, processes, remote access and documentation.
Prerequisite: CS 13001.
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 41038 INTERMEDIATE LOGIC 3 Credit Hours
(Cross-listed with MATH 41038 and MATH 51038 and PHIL 41038 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: first, to develop a facility in understanding and using symbolic logic for various purposes, and second, 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 41045 METALOGIC 3 Credit Hours
(Slashed with CS 51045; Cross-listed with MATH 41045 and MATH 51045 and PHIL 41045 and PHIL 51045) A detailed, systematic study of metalogic for philosophy majors, mathematics majors, computer science majors, and anyone else interested in advanced study in logic. Topics include the soundness and completeness of the propositional and predicate calculi, the decidablility of propositional calculus, the undecidability of predicate calculus, Gödel's incompleteness proof for languages capable of expressing arithmetic, the co-extensionality of the set of general recursive functions, abacus computable functions, and Turing computable functions, and the philosophical motivations for the ChurchTuring Thesis that all computable functions are Turing computable.
Prerequisite: PHIL 41038.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 42201 NUMERICAL COMPUTING I 3 Credit Hours
(Cross-listed with MATH 42201) (Slashed with CS 52201 and MATH 52201) An introduction to numerical methods and software for solving many common scientific computing problems. Linear systems, least-squares data fitting, nonlinear equations and systems and optimization problems.
Prerequisite: Minimum C grade in the following courses CS 13001 or (CS 13011 and CS 13012); 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 COMPUTING II 3 Credit Hours
(Slashed with CS 52202; Cross-listed with MATH 42202 and MATH 52202) A continuation of CS 42201. Topics include interpolation, numerical differentiation and integration, and numerical solution of ordinary differential equations.
Prerequisite: MATH 32044 or MATH 32052; and MATH 42201 or CS 42201.
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) 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. Implementation and maintenance of system programs, system utilities, command interpreters, editors, file maintenance programs, text processors, interrupt handling, and device drivers.
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, to 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 that are essential aspects of robotics. This first course on robotics will teach the students various motions of rigid robots, mathematics and algorithms related to these motions, motion planning, obstacle avoidance, intelligent path planning including use of various sensors.
Prerequisite: CS 23001 and CS 33301 with a minimum of C grade.
Schedule Type: Combined Lecture and Lab
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 an 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) CS III Programming Patterns extends students' knowledge of object oriented programming, and improves their C++ programming skills. Specifically, it covers procedural and object-based programming, inheritance, polymorphism, popular design patterns, and generic programming.
Prerequisite: CS 23001 with a minimum C grade.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 lecture, 3 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
Course describes the design, programming and control of autonomous drones. Students will learn how to write apps to compute and control the drone's trajectories, including collision avoidance and object detection. Topics covered include system software and hardware architectures, use case models, interoperability, trajectory programming, communications protocols. Students will apply this knowledge in the context of programming assignments using drone simulator. Subsequently, students will develop apps to control autonomous drone vehicle.
Prerequisite: Minimum C grade in CS 35201.
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; MATH 20011 or MATH 30011.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 45231 INTERNET ENGINEERING 3 Credit Hours
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, 33211 and 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: Minimum C grade in CS 20062 or in CS 23001.
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: Minimum C grade in CS 20062 or in CS 23001.
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) 1-15 Credit Hours
(Repeatable for credit)
Prerequisite: Special approval.
Schedule Type: Research
Contact Hours: 1-15 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 51045 METALOGIC 3 Credit Hours
(Slashed with CS 41045; Cross-listed with MATH 41045 and MATH 51045 and PHIL 41045 and PHIL 51045) A detailed, systematic study of metalogic for philosophy majors, mathematics majors, computer science majors, and anyone else interested in advanced study in logic. Topics include the soundness and completeness of the propositional and predicate calculi, the decidablility of propositional calculus, the undecidability of predicate calculus, Gödel's incompleteness proof for languages capable of expressing arithmetic, the co-extensionality of the set of general recursive functions, abacus computable functions, and Turing computable functions, and the philosophical motivations for the ChurchTuring Thesis that all computable functions are Turing computable
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 52201 NUMERICAL COMPUTING I 3 Credit Hours
(Cross-listed with MATH 52201)(Slashed with CS 42201 and MATH 42201) An introduction to numerical methods and software for solving many common scientific computing problems. Linear systems, least-squares data fitting, nonlinear equations and systems and optimization problems.
Prerequisite: Computer Science major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 52202 NUMERICAL COMPUTING II 3 Credit Hours
(Slashed with CS 42202)(Cross-listed with MATH 42202 and MATH 52202) A continuation of CS 52201. Topics include interpolation numerical differentiation and integration and numerical solution of ordinary 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) 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. Implementation and maintenance of system programs, system utilities, command interpreters, editors, file maintenance programs, text processors, interrupt handling, and device drivers.
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, to 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 that are essential aspects of robotics. This first course on robotics will teach the students various motions of rigid robots, mathematics and algorithms related to these motions, motion planning, obstacle avoidance, intelligent path planning including use of various sensors.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
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, it covers procedural and object-based programming, inheritance, polymorphism, popular design patterns, and generic programming.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 lecture, 3 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 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: 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 CS 55201; 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: 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: 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 a 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 how to map scientific problems in their own 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. This course may not be used to fulfill degree requirements in the the Computer Science - M.S. or Computer Science - Ph.D. programs.
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. The course provides an introduction to algorithmic concepts. It covers design and complexity analysis of algorithms and data structures, searching, sorting, graph and string algorithms. This course may not be used to fulfill degree requirements in the Computer Science - M.S. or Computer Science - Ph.D. programs.
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
The fundamentals of computer operating systems and architecture design required for a Masters of Arts degree in computer science are presented. This course may not be counted towards the Masters of Science or the Doctoral programs in Computer Science.
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 62263 NUMERICAL SOLUTION OF LARGE SPARSE LINEAR SYSTEMS 3 Credit Hours
(Slashed with CS 72263) (Cross-listed with MATH 62263 and 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 51021 and CS 52202; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 62264 NUMERICAL SOLUTION OF NONLINEAR SYSTEMS 3 Credit Hours
(Slashed with CS 72264) (Cross-listed MATH 62264 and MATH 72264) Construction and analysis of numerical methods for systems of non linear algebraic equations and optimization problems. Numerical implementation and software.
Prerequisite: MATH 52041 and CS 52202; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 63017 BIG DATA MANAGEMENT 3 Credit Hours
This course will cover a series of important Big-Data-related problems and their solutions. Specifically, we will introduce the characteristics and challenges of the Big Data, state-of-the-art computing paradigm sand platforms (e.g., MapReduce), big data programming tools (e.g., Hadoop and MongoDB), big data extraction and integration, big data storage, scalable indexing for big data, big graph processing, big data stream techniques and algorithms, big probabilistic data management, big data privacy, big data visualizations, and big data applications (e.g., spatial, finance, multimedia, medical, health, and social data).
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 63301 PARALLEL AND DISTRIBUTED COMPUTING 3 Credit Hours
(Slashed with CS 73301) Overview of parallel and distributed computing; structuring parallel and distributed programs; parallel programming using SIMD, SPMD, MIMD and associative computing; parallel and distributed architecture using existing machines as case studies.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 63304 CLUSTER COMPUTING 3 Credit Hours
(Slashed with CS 73304) This course will investigate clusters of computers as a computing platform, hardware and software trade-offs for clusters and application performance and programming of clusters.
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 63306 EMBEDDED COMPUTING 3 Credit Hours
(Slashed with CS 73306) Computational issues structuring programs for processors embedded in other devices, such as those found in automobiles and biological and chemical sample processing devices.
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 64402 MULTIMEDIA SYSTEMS AND BIOMETRICS 3 Credit Hours
(Slashed with CS 74402) This course discusses computational techniques for the fusion of multimedia data recorded by sensors for human-identification using automated analysis of biometric signals.
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) Advanced algorithms, fast fourier transforms, algorithms on trees and graphs, rational and polynomial arithmetic, gcd, factoring, numerical and symbolic computational algorithms, Risch integration algorithm, pattern matching.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 66105 PARALLEL AND DISTRIBUTED ALGORITHMS 3 Credit Hours
(Slashed with CS 76105) Introduces and evaluates important models of parallel (synchronous and asynchronous) and distributed computation, using basic searching, sorting, graph, matrix, numerical computing and computational geometry 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
The course is an integrative experience that brings together all components of the Masters nonthesis 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: Standard Letter-IP

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
(Repeatable for credit) (Slashed with CS 79995) Special topics in computer science.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

CS 72263 NUMERICAL SOLUTION OF LARGE SPARSE LINEAR SYSTEMS 3 Credit Hours
(Slashed with CS 62263) (Cross-listed with MATH 62263 and 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 51021 and CS 52202; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 72264 NUMERICAL SOLUTION OF NONLINEAR SYSTEMS 3 Credit Hours
(Slashed with CS 62264) (Cross-listed with MATH 62264 and MATH 72264) Construction and analysis of numerical methods for systems of non linear algebraic equations and optimization problems. Numerical implementation and software.
Prerequisite: MATH 52041 and CS 52202; and 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 aggrefation, 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 73017 BIG DATA MANAGEMENT 3 Credit Hours
This course will cover a series of important Big-Data-related problems and their solutions. Specifically, we will introduce the characteristics and challenges of the Big Data, state-of-the-art computing paradigm sand platforms (e.g., MapReduce), big data programming tools (e.g., Hadoop and MongoDB), big data extraction and integration, big data storage, scalable indexing for big data, big graph processing, big data stream techniques and algorithms, big probabilistic data management, big data privacy, big data visualizations, and big data applications (e.g., spatial, finance, multimedia, medical, health, and social data).
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 73301 PARALLEL AND DISTRIBUTED COMPUTING 3 Credit Hours
(Slashed with CS 63301) Overview of parallel and distributed computing; structuring parallel and distributed programs; parallel programming using simd spmd mimd and,associative computing parallel and distributed architecture using existing machines as case studies.
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 73304 CLUSTER COMPUTING 3 Credit Hours
(Slashed with CS 63304) This course will investigate clusters of computers as a computing platform, hardware and software tradeoffs for clusters and application performance and programming of clusters.
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 73306 EMBEDDED COMPUTING 3 Credit Hours
(Slashed with CS 63306) Computational issues structuring programs for processors embedded in other devices such as those found in automobiles and biological chemical sample processing devices.
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 74402 MULTIMEDIA SYSTEMS AND BIOMETRICS 3 Credit Hours
(Slashed with CS 64402) This course discusses computational techniques for fusion of multimedia data collected by sensors for human-identification using automated analysis of biometric signals.
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) Advanced algorithms, fast Fourier transforms, algorithms on trees and graphs, rational and polynomial arithmetic, GCD, factoring, numerical and symbolic computational algorithms, Rischintegration algorithm, pattern matching.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CS 76105 PARALLEL AND DISTRIBUTED ALGORITHMS 3 Credit Hours
(Slashed with CS 66105) Introduces and evaluates important models of parallel (synchronous and asynchronous) and distributed computation, using basic searching, sorting, graph, matrix, numerical computing and computational geometry 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
(Repeatable for credit) (Slashed with CS 69995) Special topics in computer science.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

CS 89098 RESEARCH 1-15 Credit Hours
(Repeatable for credit) Research or individual investigation for doctoral students who have not yet passed their candidacy examinations.
Prerequisite: Doctoral standing.
Schedule Type: Research
Contact Hours: 1-15 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 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) (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) 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. In this course, we explore elemental cycles in 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 BSCI 10110 and BSCI 10120; or minimum C grade in ESCI 11041 or ESCI 11043; and minimum C grade in CHEM 10060 and CHEM 10062.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ESCI 41025 GENERAL GEOPHYSICS 3 Credit Hours
(Slashed with ESCI 51025) Course explores how di#erent geophysical signals are generated by, or propagate through, the Earth, and how geophysical data is collected, processed and interpreted in order to answer questions about the Earth's interior. Techniques covered include seismic reflection, seismic refraction, gravity and magnetism. Strong emphasis on worked examples and case studies.
Prerequisite: ESCI 31080 and MATH 12002; and PHY 13001 or PHY 23101.
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) This course examines the forces that drive plate motions and mountain building, techniques for reconstructing those motions over a range of timescales, and how the lithosphere deforms and drives rock creation and destruction at plate boundaries, particularly in the Western United States and the 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
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 41092 SUMMER FIELD CAMP (ELR) 6 Credit Hours
(Repeatable for credit) (Slashed with ESCI 51092) Five weeks devoted to geologic mapping and solving structural and stratigraphic problems in the Black Hills of South Dakota.
Prerequisite: ESCI 31070 and ESCI 31080.
Schedule Type: Practical Experience
Contact Hours: 18 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

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) Application of scientific methods to geologic data in the field and laboratory, including methods for collection, analysis, modelling 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) Laboratory course offering fundamental training for professional hydrogeologists in field, laboratory and analytical techniques. Required weekend field trip.
Prerequisite: Junior standing.
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) 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 does water take to the stream channel?". Students examine the processes of precipitation, evapotranspiration, infiltration, streamflow generation and streamflow. They learn about 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) 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 12002 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) 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 12002 or any higher level MATH course.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ESCI 43040 PRINCIPLES OF GEOCHEMISTRY 3 Credit Hours
(Slashed with ESCI 53040) Introduction to chemical thermodynamics and its applications in solving geochemical problems. Distributions of elements and isotopes in the Earth and laws governing these distributions.
Prerequisite: CHEM 10060 and CHEM 10061 and ESCI 31070 and MATH 12002.
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 10060 and CHEM 10061.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ESCI 43043 ENVIRONMENTAL MINERALOGY 3 Credit Hours
(Slashed with 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 the 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. 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 the recent scientific literature.
Prerequisite: CHEM 10060 and CHEM 10061.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ESCI 43189 WICKED PROBLEMS: TACKLING GLOBAL ISSUES IN THE 21ST CENTURY (DIVG) (ELR) 3 Credit Hours
(Cross-listed with GEOG 43189 and POL 43189) 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. Registration in Florence semester abroad required.
Prerequisite: None.
Schedule Type: International Experience, Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Experiential Learning Requirement

ESCI 43500 ENVIRONMENTAL SOIL SCIENCE 3 Credit Hours
(Slashed with ESCI 53500) Soil is a critical natural resource that sustains human life. In this course, students explore the geochemical composition of soils and the physical, biological and chemical processes involved in 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) 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) 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) 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) 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 50095 SELECTED TOPICS IN EARTH SCIENCES 1-3 Credit Hours
(Slashed with ESCI 40095)(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) 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. In this course, we explore elemental cycles in 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 51025 GENERAL GEOPHYSICS 3 Credit Hours
(Slashed with ESCI 41025) This course will explore how di#erent geophysical signals are generated by, or propagate through, the Earth, and how geophysical data is collected, processed and interpreted in order to answer questions about the Earth's interior. Techniques covered include seismic reflection, seismic refraction, gravity, and magnetism. There will be a strong emphasis on worked examples and case studies.
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) This course examines the forces that drive plate motions and mountain building, techniques for reconstructing those motions over a range of timescales, and how the lithosphere deforms and drives rock creation and destruction at plate boundaries, particularly in the Western United States and the Appalachians. Required field trip to the Appalachians.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ESCI 51092 SUMMER FIELD CAMP 6 Credit Hours
(Repeatable for credit) (Slashed with ESCI 41092) Five weeks devoted to geologic mapping and solving structural and stratigraphic problems in the Black Hills of South Dakota.
Prerequisite: Graduate standing.
Schedule Type: Practical Experience
Contact Hours: 18 other
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) Application of scientific methods to geologic data in the field and laboratory, including methods for collection, analysis, modelling 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: Graduate standing.
Schedule Type: 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) Laboratory course offering fundamental training for professional hydrogeologists. Required weekend field trip.
Prerequisite: Graduate standing.
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) Watershed hydrology is the study of water movement, storage and transformation across landscapes. This course will answer basic questions like: “Where does water go when it rains?” and “What pathways does water take to the stream channel?”. Students will examine the processes of precipitation, evapotranspiration, infiltration, streamflow generation, and streamflow. They will learn about 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) 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) 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 53040 PRINCIPLES OF GEOCHEMISTRY 3 Credit Hours
(Slashed with ESCI 43040) Introduction to chemical thermodynamics and its applications in solving geochemical problems. Distributions of elements and isotopes in the Earth and laws governing these distributions.
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) 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 the 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. This course will begin by focusing on traditional applications of oxygen, hydrogen, carbon, and sulfur stable isotopes to understand the water and carbon cycles. Subsequently, students will be introduced to emerging stable isotope techniques and non-traditional stable isotope systems. Lectures will be supplemented with exercises that incorporate real data and discussions based on the recent scientific literature.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ESCI 53500 ENVIRONMENTAL SOIL SCIENCE 3 Credit Hours
(Slashed with ESCI 43500) Soil is a critical natural resource that sustains human life. In this course, students explore the geochemical composition of soils and the physical, biological and chemical processes involved in 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) Explores the geologic 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 geological 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) This course explores the processes that control the production, transport, deposition, and alteration of sediments. Students will 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 will be 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 fieldtrip.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 lecture, 2 lab, 1 other
Grade Mode: Standard Letter

ESCI 54072 MARINE PROCESSES 3 Credit Hours
(Slashed with ESCI 44072) 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) 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 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 60085 DATA ANALYSIS AND PRESENTATION 1 Credit Hour
This course focuses on the skills and issues surrounding data production and analysis in 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: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

ESCI 60086 FIELD METHODS IN THE EARTH SCIENCES 1 Credit Hour
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 60087 WRITING IN THE EARTH SCIENCES 1 Credit Hour
(Slashed with ESCI 70087) Focuses on the strategies for achieving regular and productive academic writing and the craft of writing for the 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 peer support.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

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 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 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 70087 WRITING IN THE EARTH SCIENCES 1 Credit Hour
(Slashed with ESCI 60087) Focuses on the strategies for achieving regular and productive academic writing and the craft of writing for the 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 peer support.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

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 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 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 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 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. This course will begin by focusing on traditional applications of oxygen, hydrogen, carbon, and sulfur stable isotopes to understand the water and carbon cycles. Subsequently, students will be introduced to emerging stable isotope techniques and non-traditional stable isotope systems. Lectures will be supplemented with exercises that incorporate real data and discussions based on the recent scientific literature.
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 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 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

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 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 02500 ESL PRONUNCIATION 1 Credit Hour
(Repeatable for a maximum of 2 credit hours) Study of English pronunciation with practice in segmental and suprasegmental features (sounds, sound combinations, syllables, stress, rhythm, and intonation). Students are placed in the appropriate course based on test score. Course does not count toward graduation.
Prerequisite: None (placement and registration done by the department).
Schedule Type: Lecture
Contact Hours: 1.4 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 12606 ESL AMERICAN CULTURE II 2 Credit Hours
Overview of basic American values and beliefs related to education, holidays, government and politics, the criminal justice system, America in the 21st century, etc. Must score minimum level 6 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 12801 ESL ACADEMIC SUCCESS 1 Credit Hour
This class will provide transitional support for students preparing to enter an undergraduate or graduate course of study from the ESL Center. Students will focus on the social, cultural, and academic skills needed to be competent and successful in an American university setting including understanding university policies, academic expectations, and cultural norms.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1 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 (DIVD) 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
Attributes: Diversity Domestic

ENG 21002 INTRODUCTION TO WOMEN'S LITERATURE (DIVD) 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
Attributes: Diversity Domestic

ENG 21003 INTRODUCTION TO LGBT LITERATURE (DIVD) 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
Attributes: Diversity Domestic

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 (DIVG) (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: Diversity Global, 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 (DIVD) 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
Attributes: Diversity Domestic

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 (DIVG) 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
Attributes: Diversity Global

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 (DIVG) 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, Cesaire, Senghor, Soyinka and many others.
Prerequisite: ENG 11011 or HONR 10197.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

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 (DIVG) 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
Attributes: Diversity Global

ENG 34021 WOMEN'S LITERATURE (DIVD) 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
Attributes: Diversity Domestic

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 (DIVD) 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
Attributes: Diversity Domestic

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 (DIVG) (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: Diversity Global, 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: Senior Project/Honors Thesis
Contact Hours: 2 lecture
Grade Mode: Standard Letter-IP
Attributes: Experiential Learning Requirement

ENG 41001 SOCIOLINGUISTICS IN SCHOOLING (DIVD) (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: Diversity Domestic, 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 41194 TUTORING OF WRITING 3 Credit Hours
Provides training and professional development for writing center tutors. Course covers writing center theory and practice, the history writing centers, composition pedagogy, writing across the curriculum, tutoring ESL students, assessing writing center services, and the development of outreach programming.
Prerequisite: Minimum C grade in ENG 21011 or HONR 10297.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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. 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: 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 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) Students will 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) 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) Students will be introduced to basic linguistic issues and how these relate to the language professions. Course focuses on functional principles, especially on 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
This course provides a description of English syntax and morphology. Presentation of material will be through rules and exposure to grammatical forms in meaningful contexts.
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) Theory and practice in teaching second language writing. Topics will 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 in 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) 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 will also be addressed directly, namely assessment and curriculum building.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ENG 63045 ENGLISH FOR SPECIFIC PURPOSES 3 Credit Hours
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
Theory and practice in second language listening and speaking. Topics will include current approaches to second language speech perception and production, issues in 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) Theory and practice in language education of heritage language speakers. Ethnic, minority, ancestral, and community languages and language practices will be explored with implications for second and additional language learning in English, foreign language, bilingual education.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ENG 63048 SOCIOCULTURAL THEORY AND FOREIGN AND SECOND LANGUAGE ACQUISITION 3 Credit Hours
(Cross-listed with MCLS 60623) 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) 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 in 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
(Repeatable for credit) (Cross-listed with ENG 73391) 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 65023 RHETORICAL THEORY:18TH, 19TH AND 20TH CENTURIES 3 Credit Hours
(Slashed with ENG 75023) Course surveys 18th-, 19th- and 20th-century developments in rhetorical theory and their influences on contemporary pedagogical and theoretical practices.
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 65044 RESEARCH DESIGN 3 Credit Hours
(Repeatable for credit) (Slashed with ENG 75044) (Introduces students to 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 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 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 66401 LITERARY MOVEMENTS 3 Credit Hours
(Slashed with ENG 76401) An examination of one particular movement in literary history via its writers, artists benefactors, thinkers, political demagogues and critics.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 66706 METHODS IN THE STUDY OF LITERATURE 3 Credit Hours
(Slashed with ENG 76706) Analytical reading and interpretation of published research and criticism, its assumptions, trends, controversies; course will identify and contextualize present opportunities for research in field. Required for Ph.D.s specializing in Division II.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 67101 FEMINIST THEORY AND CRITICISM 3 Credit Hours
(Slashed with ENG 77101) Study of key issues and concepts in feminist theory and criticism, including the nature, causes and effects (political, social and psychological) of certain types of representation of women and discourse practices employed by women.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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
(Repeatable for credit) Practical training and experience in 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, 6 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 in P-12 schools including 100 field-clinical hours in an assigned P-12 school.
Prerequisite: Graduate standing in MA TESL Education Concentration.
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 75023 RHETORICAL THEORY:18TH, 19TH AND 20TH CENTURIES 3 Credit Hours
(Slashed with ENG 65023) Course surveys 18th-,19th- and 20th-century developments in rhetorical theory and their influences on contemporary pedagogical and theoretical practices.
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 75044 RESEARCH DESIGN 3 Credit Hours
(Repeatable for credit) (Slashed with ENG 65044) Introduces students to 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 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 three dominant metaphors ("adaptation," "power," "grace") those studies employ. Prerequisite: Doctoral standing.
Prerequisite: graduate 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 76401 LITERARY MOVEMENTS 3 Credit Hours
(Slashed with ENG 66401) An examination of one particular movement in literary history via its writers, artists, benefactors, thinkers, political demagogues and critics.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 76706 METHODS IN THE STUDY OF LITERATURE 3 Credit Hours
(Slashed with ENG 66706) Analytical reading and interpretation of published research and criticism, its assumptions, trends, controversies; course will identify and contextualize present opportunities for research in field. Required for Ph.D.s specializing in Division II.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 77101 FEMINIST THEORY AND CRITICISM 3 Credit Hours
(Slashed with ENG 67101) Study of key issues and concepts in feminist theory and criticism, including the nature, causes and effects (political, social and psychological) of certain types of representation of women and discourse practices employed by women.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 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 75012, ENG 75022, ENG 75023, ENG 73034, ENG 75051, ENG 75052, 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 candidacy examination. Credits earned may be applied toward degree if department approves.
Prerequisite: Graduate standing; and special approval of the graduate chairman.
Schedule Type: Research
Contact Hours: 1-15 other
Grade Mode: Satisfactory/Unsatisfactory

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

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 (DIVG) (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: Diversity Global, Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

GEOG 17064 GEOGRAPHY OF THE UNITED STATES AND CANADA (DIVD) (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: Diversity Domestic, 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 (DIVG) 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
Attributes: Diversity Global

GEOG 22061 HUMAN GEOGRAPHY (DIVG) (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: Diversity Global, 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: GEOG 31062.
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 (DIVG) 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
Attributes: Diversity Global

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 (DIVG) 3 Credit Hours
Course examines what is a city, how it has evolved over time under changing economic conditions, what is its internal structure and how this has been influenced by transportation developments. Special attention is paid to the causes and consequences of social diversity within the city and how cities differ throughout the world.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

GEOG 37040 GEOGRAPHY OF AFRICA (DIVG) 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
Attributes: Diversity Global

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 (DIVG) 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
Attributes: Diversity Global

GEOG 37070 GEOGRAPHY OF EAST AND SOUTHEAST ASIA (DIVG) 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
Attributes: Diversity Global

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 37084 GEOGRAPHY OF SOUTH AMERICA (DIVG) 3 Credit Hours
Overview of region and survey of each country emphasizes systematic similarities and differences in physical environment, culture, economic development, population, land use, politics and history.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

GEOG 37085 GEOGRAPHY OF LATIN AMERICA AND THE CARIBBEAN (DIVG) 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
Attributes: Diversity Global

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 APPLIED CLIMATOLOGY 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) Culture-technology and distance in relation to resource adequacy and management concepts for societal decisions about common property and situations with external economies.
Prerequisite: Junior standing.
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 43189 WICKED PROBLEMS: TACKLING GLOBAL ISSUES IN THE 21ST CENTURY (DIVG) (ELR) 3 Credit Hours
(Cross-listed with ESCI 43189 and POL 43189) 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. Registration in Florence semester abroad required.
Prerequisite: None.
Schedule Type: International Experience, Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Experiential Learning Requirement

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: None.
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 APPLIED CLIMATOLOGY 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) Culture-technology and distance in relation to resource adequacy and management concepts for societal decisions about common property and situations with external economies.
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 CarouselSpecialist 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
Critical discussion of techniques of geographic research and preparation and presentation of research papers.
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 APPLIED CLIMATOLOGY 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) Culture-technology and distance in relation to resource adequacy and management concepts for societal decisions about common property and situations with external economies.
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

Department of History

History (HIST)

HIST 11050 WORLD HISTORY: ANCIENT AND MEDIEVAL (DIVG) (KHUM) 3 Credit Hours
World history from early human societies through the mid-17th century.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Kent Core Humanities, TAG History, Transfer Module Humanities

HIST 11051 WORLD HISTORY: MODERN (DIVG) (KHUM) 3 Credit Hours
World history from mid-17th century to the present.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Kent Core Humanities, TAG History, Transfer Module Humanities

HIST 12070 EARLY AMERICA: FROM PRE-COLONIZATION TO CIVIL WAR AND RECONSTRUCTION (DIVD) (KHUM) 3 Credit Hours
A survey of United States history through 1877.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic, Kent Core Humanities, TAG History, Transfer Module Humanities

HIST 12071 MODERN AMERICA: FROM INDUSTRIALIZATION TO GLOBALIZATION (DIVD) (KHUM) 3 Credit Hours
A survey of United States history since 1877.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic, Kent Core Humanities, TAG History, Transfer Module Humanities

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; eighteenth- and nineteenth-century resort towns, nineteenth-century capital cities and industrial cities; the devastation of the World Wars and post-war reconstruction. The course will examine cities as "windows" into the societies they serve; the fortunes and misfortunes of cities will be treated as mirrors of regional economic, political, and social trends. The thematic focus of the course will be on the political "message" encoded in architecture, design and layout and the course will interpret the outward face of cities as an expression of political identity, power, and even civic virtù. This course will be 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
This course focuses on the nineteenth-century origins of present-day international problems - from risks of unilateralism to the debt crisis of developing countries to the nationalist tendencies in the Balkans to the question of whether a united Germany is compatible with the European equilibrium. Second, this course looks at how nineteenth-century statecraft dealt with issues that still clutter the headlines today such as peacemaking and peacekeeping, the erosion of treaties, alliances among unequal partners, and crisis management. Third, the course will point to the importance of global linkages (i.e. how events in one area of the world were linked to developments in another and how the Balkans, the Middle East, Africa, and East Asia became flashpoints in the foreign relations of Great Powers. This course will be offered primarily at the Stark campus.
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
This course examines the foreign policies of the great powers during and between the world wars, the domestic underpinnings of these policies and how these policies affected civilian populations. While the course examines a broad range of nations and actors, particular emphasis is placed on the emergence of Soviet Russia, Fascist Italy and Nazi Germany, and the question of whether their foreign policies constituted a radical break from or, instead, were rooted in earlier Russian, Italian and German policies.
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 31027 HISTORY OF ENGLAND TO 1688 3 Credit Hours
Survey of medieval and early modern England. Topics include Norman Conquest, medieval culture and society, Reformation, Age of Elizabeth, English Revolution.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31028 ENGLAND SINCE 1688 3 Credit Hours
Survey of national development from the Glorious Revolution through the Second World War, with special attention to leaders, prominent individuals and problems of change.
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 SEVENTEENTH-CENTURY EUROPE 3 Credit Hours
This course will analyze those political, economic, social, religious and intellectual factors leading to economic crisis and civil wars in Europe.
Prerequisite: Junior 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 fifteenth- through seventeenth-century European witch-hunts and their decline in the eighteenth century through lecture and class discussions of both primary and secondary sources. The course has four parts. The first investigates the development of notions of diabolical witchcraft from the ancient world, while Part two examines the intellectual, gender, religious, social and legal backgrounds that helped cause witch-hunts The final sections explore the dynamics of witchcraft trials. The final section 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31036 THE TWENTIETH CENTURY WORLD 3 Credit Hours
This course explores the key political, cultural, social, and economic events that defined and shaped the twentieth century. Topics to be addressed will include imperialism, revolution and war, nationalism and decolonization, and globalization.
Prerequisite: Sophomore standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31040 AMERICAN HISTORY THROUGH POPULAR MUSIC 3 Credit Hours
Allows students to develop an understanding of the interconnection between the rise of popular music in the period after 1865 to the social, political, and technological changes that this period witnessed and how this helps to understand the meaning and significance of cultural identity in 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 will examine and interpret 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 of sports trivia. The main goal of the course is to use sports as a way to better understand American history and American culture. This course will be 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 will explore the history of "living outside the law" in the nineteenth and twentieth centuries. We will read biographical and autobiographical treatments of and monographs about men and women who committed crimes in these centuries and use them as a lens through which to view the changing experiences, constraints, and self-understandings of people who committed crimes in United States history. Some sections of this course may be offered as part of the Inside Out Program in which the course will take place in a nearby prison or jail and will include students who are incarcerated.
Prerequisite: Sophomore standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31053 MODERN EUROPE, 1815 TO PRESENT 3 Credit Hours
Covers the political, social, and cultural history of Europe from the peace at the end of the Napoleonic wars to the present.
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 in 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 in this turbulent era. This course covers the era of "Great Wars," the "economic miracle" after the war, the challenges of the Cold War, generational rebellion, and the 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: Junior 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 is on social, cultural, political, and the economic history of the region. Topics include the historical significance of Ohio's geography, the role and contributions of Native American peoples, the 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: Junior 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: Junior 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: Junior 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 counter-intelligence. 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, the lectures and discussions will 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 in all time periods have developed sexual cultures and norms, accommodated themselves to, ignored, creatively interpreted or defied, or changed these cultures and norms over time. We will focus on how sexual cultures and norms of were taught and enforced, and how 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
(Cross-listed with AFS 33101) 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 in the twentieth 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. Working in the University Archives, students conduct research in original source materials and develop a collaborative digital history project based on their research.
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 will survey 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 will examine closely a series of crucial turning points in the history of whiteness in the United States: 1) the colonial era and the creation of "whiteness" as an identity; and 2) the evolution of "whiteness" during the long nineteenth and twentieth centuries.
Prerequisite: Sophomore standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31084 THE INVENTION OF AMERICA: 1492-1714 (DIVD) 3 Credit Hours
Students explore the coming together of European, Native American and African peoples in the Western Hemisphere from 1492 to 1714.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic

HIST 31085 ALEXANDER HAMILTON'S WORLD: 18TH-CENTURY AMERICA (DIVD) 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic

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: Junior 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: Junior 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 12070.
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, the Spanish-American War and empire in the Pacific, the two world wars, the Cold War and the 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 (DIVD) 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic

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: Junior 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31108 RECENT AMERICA: THE UNITED STATES, 1945-PRESENT 3 Credit Hours
Examines everyday life and culture, assesses the degree to which presidents and their administrations are the reflections of their constituencies, and evaluates the significant events and themes of U.S. history since 1945.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31112 CHINESE CIVILIZATION 3 Credit Hours
General survey of 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31114 TRADITION AND REVOLUTION IN SOUTHEAST ASIA (DIVG) 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

HIST 31115 INDIA SINCE 1526 3 Credit Hours
Presents a broad introduction to the modern history and culture of India, or South Asia. Students will gain an understanding of the geography, traditions, religions, and culture that make India a distinct civilization. The course traces the history of Modern India from the Mughal Empire through the British Raj, Ghandi and nationalism, partition, and the Republic of India. Finally, the course examines the recent rise of Hindu fundamentalism and its implications for the world's largest democracy.
Prerequisite: Junior 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: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31124 HIGHLIFE HISTORIES: MODERN AFRICAN URBAN EXPERIENCE 3 Credit Hours
The term "high-life" is most often associated with a musical style originating in Ghana and Sierra Leone in 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 will focus on this mixing over the 20th century, concentrating on cities such as Harare, Zimbabwe; Accra, Ghana; Lagos, Nigeria; and Nairobi, Kenya.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 31126 HISTORY OF THE MIDDLE EAST 3 Credit Hours
A survey of Islamic civilization in Middle Eastern context from the earliest days to the present.
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 cultural, political, social and economic history of Africa from antiquity to the onset of European colonialism in the 1880s. The history of the Atlantic, Saharan, and East African slave trade will be investigated, as will 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: Junior 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 (DIVG) 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
Attributes: Diversity Global

HIST 31141 EARLY MODERN LATIN AMERICA (C. 1450-1820) (DIVG) 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
Attributes: Diversity Global

HIST 31500 FOUNDATIONS IN THE HISTORY AND PHILOSOPHY OF SCIENCE 3 Credit Hours
(Cross-listed with PHIL 31080) An introduction to the study of science as a social, cultural, and historical phenomenon with an emphasis on the history of science primarily in Western civilization since 1500 and the major philosophical approaches to science developed in the twentieth century.
Prerequisite: None.
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 in the sciences and medicine in Europe from 1500 to 1750.
Prerequisite: Junior 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 in the history of medicine from the Renaissance to the twentieth century using an approach to the history of medicine which emphasizes the interactions between ideas, institutions, and individuals.
Prerequisite: Junior 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 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 41000 INTRODUCTION TO PUBLIC HISTORY 3 Credit Hours
(Slashed with HIST 51000 and HIST 71000) 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 41020 NINETEENTH-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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 41024 MODERN EUROPEAN HISTORY, 1914-1945 3 Credit Hours
(Slashed with HIST 51024 and HIST 71024) Special attention paid to the two world wars, Bolshevik Revolution, rise of fascism and fate of European Jewry.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 41025 MODERN EUROPEAN HISTORY:1945-PRESENT 3 Credit Hours
(Slashed with HIST 51025 and HIST 71025) Survey of European political, economic, social and cultural developments since 1945.
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 an 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 41041 HISTORY OF GERMANY, 1871-PRESENT 3 Credit Hours
Focuses on the impact of industrialization, the dilemma of the German left, the rise of Nazism and the emergence of two German states after 1945.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 41058 JEFFERSON-JACKSON ERA, 1789-1848 3 Credit Hours
(Slashed with HIST 51058 and HIST 71058) Study of the founding and development of the American nation, especially the periods of Jefferson and Jackson.
Prerequisite: Junior 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 twentieth-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: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 41062 THE UNITED STATES:THE WESTWARD MOVEMENT 3 Credit Hours
(Slashed with HIST 51062 and HIST 71062) The process of settlement from its beginnings; consequences for American history.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 41071 IDEAS IN ACTION: U.S. INTELLECTUAL HISTORY (DIVD) 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
Attributes: Diversity Domestic

HIST 41077 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 41085 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 counter-culture; 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: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 41112 HISTORY OF MODERN CHINA 3 Credit Hours
Disintegration of the Chinese empire amid Western challenge and internal disorder and the subsequent rise of communism.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 41129 THE HOLOCAUST: THE DESTRUCTION OF EUROPEAN JEWRY, 1938-1945 3 Credit Hours
Analysis of those political, economic, social and intellectual factors leading to systematic destruction of European Jewry during World War II.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 42297 COLLOQUIUM: CHINA AND JAPAN 3 Credit Hours
Study of important issues in the history of China and Japan through reading and discussing major works pertinent to the issues selected.
Prerequisite: Junior standing.
Schedule Type: Colloquium
Contact Hours: 3 other
Grade Mode: Standard Letter

HIST 43797 COLLOQUIUM ON VICTORIAN ENGLAND 3 Credit Hours
Consideration of distinctive features of Victorian England including class structure, ideas, manners, politics, foreign affairs and empire.
Prerequisite: None.
Schedule Type: Colloquium
Contact Hours: 3 other
Grade Mode: Standard Letter

HIST 48800 SEMINAR IN MODERN AFRICAN AMERICAN HISTORY 3 Credit Hours
This seminar specializes in modern African American history with an emphasis on reading and discussing important scholarly works in African American history.
Prerequisite: Junior standing.
Schedule Type: Seminar
Contact Hours: 3 other
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: Permission (see HONR 40099).
Schedule Type: Senior Project/Honors Thesis
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 51000 PUBLIC HISTORY 3 Credit Hours
(Slashed with HIST 41000 and HIST 71000) 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: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 51024 MODERN EUROPEAN HISTORY, 1914-1945 3 Credit Hours
(Slashed with HIST 41024 and HIST 71024) Special attention paid to the two World Wars, Bolshevik Revolution, rise of Fascism and fate of European Jewry.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 51025 MODERN EUROPEAN HISTORY:1945 TO PRESENT 3 Credit Hours
(Slashed with HIST 41025 and HIST 71025) Survey of European political, economic, social and cultural developments since 1945.
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 51058 THE JEFFERSON-JACKSON ERA, 1789-1848 3 Credit Hours
(Slashed with HIST 41058 and HIST 71058) A study of the founding and development of the American nation, especially the periods of Jefferson and Jackson.
Prerequisite: Graduate standing.
Schedule Type: Lecture
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 twentieth-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: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 51062 THE UNITED STATES:THE WESTWARD MOVEMENT 3 Credit Hours
(Slashed with HIST 41062 and HIST 71062) The process of settlement from its beginning; consequences for American history.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 58800 SEMINAR IN MODERN AFRICAN AMERICAN HISTORY 3 Credit Hours
(Slashed with HIST 78800) This seminar specializes in modern African American history with an emphasis on reading and discussing important scholarly works in African American history.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 3 other
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 62097 PUBLIC HISTORY COLLOQUIUM 3 Credit Hours
(Repeatable for credit) (Slashed with HIST 72097) Assigned readings, discussions and papers focus on particular emphases and skill areas in public history.
Prerequisite: Graduate standing.
Schedule Type: Colloquium
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 ghettoes; 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 71000 PUBLIC HISTORY 3 Credit Hours
(Slashed with HIST 41000 and HIST 51000) 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: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 71024 MODERN EUROPEAN HISTORY, 1914-1945 3 Credit Hours
(Slashed with HIST 41024 and HIST 51024) Special attention paid to the two world wars, Bolshevik Revolution, rise of fascism and fate of European Jewry.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 71025 MODERN EUROPEAN HISTORY: 1945 TO PRESENT 3 Credit Hours
(Slashed with HIST 41025 and HIST 51025) Survey of European political, economic social and cultural developments since 1945.
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 71058 THE JEFFERSON-JACKSON ERA, 1789-1848 3 Credit Hours
(Slashed with HIST 41058 and HIST 51058) Study of the founding and development of the American nation, especially the periods of Jefferson and Jackson.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 71060 COMPARATIVE FACISM 3 Credit Hours
(Slashed with HIST 41060 and HIST 51060) Examination of the theories and practices of fascist movements and regimes in twentieth-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: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 71062 THE UNITED STATES:THE WESTWARD MOVEMENT 3 Credit Hours
(Slashed with HIST 41062 and HIST 51062) The process of settlement from its beginnings; consequences for American history.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 72097 PUBLIC HISTORY COLLOQUIUM 3 Credit Hours
(Repeatable for credit) (Slashed with HIST 62097) Assigned readings, discussions and papers focus on particular emphases and skill areas in public history.
Prerequisite: Doctoral standing.
Schedule Type: Colloquium
Contact Hours: 3 other
Grade Mode: Standard Letter

HIST 72140 THE SIXTIES:A THIRD WORLD VIEW 3 Credit Hours
Examines the political, social and cultural upheaval of the 1960s in Latin America, Africa and Asia.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HIST 78800 SEMINAR IN MODERN AFRICAN AMERICAN HISTORY 3 Credit Hours
(Slashed with HIST 58800) This seminar specializes in modern African American history with an emphasis on reading and discussing important scholarly works in African American history.
Prerequisite: Doctoral standing.
Schedule Type: Seminar
Contact Hours: 3 other
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 ghettoes; 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 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 with a minimum C grade; or any higher level 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, 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 our course, in each area of concentration (numeracy, mathematical modeling, and probability and statistics) students will 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 then 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: 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 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

MATH 10675 ALGEBRA FOR CALCULUS BOOST (KMCR) 5 Credit Hours
(Equivalent to MATH 10775 or 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 in 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 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 ALEKS math score between 35-44; 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 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 or 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 in real-world scenarios. The emphasis is on linear, polynomial, exponential and rational functions, with an extensive problem-solving component. Skill review is included in the course, as is time studying quadratic functions, absolute value functions, systems of equations and extended time on logarithms.
Prerequisite: ALEKS math score between 45 and 54; or MATH 10772 with a minimum C grade.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter
Attributes: Kent Core Mathematics and Critical Reasoning

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 or 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 in real-world scenarios. Emphasis is on linear, polynomial, exponential and rational functions, with an extensive problem-solving component.
Prerequisite: Minimum 55 ALEKS math score; or MATH 10772 or MATH 11009 with a minimum B grade.
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 19002 TECHNICAL MATHEMATICS II 4 Credit Hours
Emphasizes advanced topics in algebra and trigonometry, analytic geometry, derivatives and integrals.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

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 and singular points. Laplace transforms and linear systems. Applications include population dynamics, forced oscillations and resonance.
Prerequisite: Minimum C grade in the following courses: MATH 21001 or MATH 21002; and MATH 22005.
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 and MATH 40024 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: Minimum C grade in MATH 30055 and MATH 40011.
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
(Slashed with MATH 51038) (Cross-listed with CS 41038 and PHIL 41038 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: first, to develop a facility in understanding and using symbolic logic for various purposes, and second, 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: Junior standing; and Actuarial Mathematics major, Applied Mathematics major, Applied Mathematics minor, Applied Statistics minor, Mathematics (BA or BS) major or Mathematics minor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

MATH 41045 METALOGIC 3 Credit Hours
(Slashed with MATH 51045; Cross-listed with CS 41045 and CS 51045 and PHIL 41045 and PHIL 51045) A detailed, systematic study of metalogic for philosophy majors, mathematics majors, computer science majors, and anyone else interested in advanced study in logic. Topics include the soundness and completeness of the propositional and predicate calculi, the decidablility of propositional calculus, the undecidability of predicate calculus, Gödel's incompleteness proof for languages capable of expressing arithmetic, the co-extensionality of the set of general recursive functions, abacus computable functions, and Turing computable functions, and the philosophical motivations for the ChurchTuring Thesis that all computable functions are Turing computable.
Prerequisite: PHIL 41038.
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: MATH 32044 or MATH 32052 with a minimum C grade.
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: MATH 32044 or MATH 32052 with a minimum C grade.
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 COMPUTING I 3 Credit Hours
(Cross-listed with CS 42201)(Slashed with CS 52201 and MATH 52201) An introduction to numerical methods and software for solving many common scientific computing problems. Linear systems, least-squares data fitting, nonlinear equations and systems and optimization problems.
Prerequisite: Minimum C grade in the following courses: CS 13001 or (CS 13011 and CS 13012); 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 COMPUTING II 3 Credit Hours
(Cross-listed with CS 42202 and CS 52202) (Slashed with MATH 52202) A continuation of MATH 42201. Topics include interpolation, numerical differentiation and integration, and numerical solution of ordinary differential equations.
Prerequisite: MATH 42201 with a minimum C grade; and MATH 32044 or MATH 32052 with a minimum C grade.
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 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: first, to develop a facility in understanding and using symbolic logic for various purposes, and second, 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 51045 METALOGIC 3 Credit Hours
(Cross-listed with CS 41045 and CS 51045 and PHIL 41045 and PHIL 51045) (Slashed with MATH 41045) A detailed, systematic study of metalogic for philosophy majors, mathematics majors, computer science majors, and anyone else interested in advanced study in logic. Topics include the soundness and completeness of the propositional and predicate calculi, the decidablility of propositional calculus, the undecidability of predicate calculus, Gödel's incompleteness proof for languages capable of expressing arithmetic, the co-extensionality of the set of general recursive functions, abacus computable functions, and Turing computable functions, and the philosophical motivations for the ChurchTuring Thesis that all computable functions are Turing computable
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) 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 COMPUTING I 3 Credit Hours
(Cross-listed with CS 52201) (Slashed with CS 42201 and MATH 42201) An introduction to numerical methods and software for solving many common scientific computing problems. Linear systems, least-squares data fitting, nonlinear equations and systems and optimization 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 COMPUTING II 3 Credit Hours
(Cross-listed with CS 42202 and CS 52202) (Slashed with MATH 42202) A continuation of MATH 52201. Topics include interpolation, numerical differentiation and integration, and numerical solution of ordinary differential equations.
Prerequisite: MATH 42201 or 52201; and 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 57057 ADVANCED CONCEPTS OF GEOMETRY 3 Credit Hours
The course covers advanced topics in Euclidean Geometry, including Ceva's, Menelaus', and the 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 57067 ADVANCED CONCEPTS OF PROBABILITY AND STATISTICS 3 Credit Hours
The 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; together with 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 57077 ADVANCED CONCEPTS OF ALGEBRA 3 Credit Hours
The 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 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 62203 COMPUTATIONAL FINANCE 3 Credit Hours
(Slashed with MATH 72203) Basic numerical methods, (numerical linear algebra, nonlinear equations, curve fitting, ODEs, integration, Monte-Carlo methods), numerical solution of PDEs (stability, convergence, Black-Scholes, American options, SDEs) probabilistic methods.
Prerequisite: MATH 22005 and MATH 21001 and MATH 32044; 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, interpolation (polynomial, trigonometric, spline). Numerical quadrature (Newton-Cotes, Gauss),extrapolation, Romberg integration.
Prerequisite: MATH 42002 or MATH 52002; 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) 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 41021 or MATH 51021; and MATH 62251 or MATH 72251; 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) (Cross-listed with CS 62263 and CS 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
(Cross-listed with CS 62264 and CS 72264) (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 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 70094 COLLEGE TEACHING OF MATHEMATICS 1 Credit Hour
(Repeatable for credit) Techniques and problems in the teaching of college-level mathematics. Student presentations of mathematical papers and colloquia will be included.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 1 lecture
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 72203 COMPUTATIONAL FINANCE 3 Credit Hours
(Slashed with MATH 62203) Basic numerical methods, (numerical linear algebra, nonlinear equations, curve fitting, ODEs, integration, Monte-Carlo methods) numerical solution of PDEs (stability, convergence, Black-Scholes, American options, SDEs) probabilistic methods.
Prerequisite: MATH 22005 and MATH 21001 and MATH 32044; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 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, interpolation (polynomial, trigonometric spline). Numerical quadrature (Newton-Cotes, Gauss), extrapolation, Romberg integration.
Prerequisite: MATH 42002 or MATH 52002; 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) 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 41021 or MATH 51021; and MATH 62251 or MATH 72251; 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) (Cross-listed with CS 62263 and CS 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 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) (Cross-listed with CS 62264 and CS 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 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 metrizability.
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 quadraic and cyclotomic number fields; theory of ideals and class group; Dirichlet's thoerem 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 artithmetic 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 I 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 in a community service project. Students are advised to begin planning this activity early in the semester. Successful completion of ASL 29201 portfolio review required prior to registration.
Prerequisite: ASL 29202 .
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ASL 39202 ADVANCED AMERICAN SIGN LANGUAGE II 3 Credit Hours
Students continue to increase their receptive and expressive proficiency in American Sign Language in an immersion setting, through in-class formal and informal presentations, discussions of current and historical events, and working in groups to complete a semester project and a community service project.
Prerequisite: ASL 39201.
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 49109 AMERICAN SIGN LANGUAGE LINGUISTICS II 3 Credit Hours
Through lecture, in-class and out-of-class activities, and in-class presentations, students discuss, use, and respond to varied sentence structures and types of discourse in ASL, and compare these to English. Class is predominantly taught in ASL, but may at times use a bilingual approach.
Prerequisite: ASL 49108; and special approval.
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 49309 INTRODUCTION TO DEAF STUDIES (ELR) (WIC) 3 Credit Hours
(Cross-listed with SPED 43309) (Slashed with SPED 53309) Introductory survey course designed to provide informational base and understanding of the unique experiences of Deaf people as a cultural minority. Course includes a discussion of the history of deaf education, etiology and prevalence data, service delivery systems, the process of diagnosis and discovery of hearing loss, issues associated with assessment and the various communication systems used by deaf individuals. Specifically, topics discussed include historical, medical and cultural perspectives regarding the interactions between Deaf and hearing cultural groups and the resulting impact on social, academic-educational and vocational experiences of deaf children, adults and their families.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement, Writing Intensive Course

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 49401 DEAF CULTURE AND COMMUNITY 3 Credit Hours
(Slashed with SPED 53101) Students explore the different voices and perspectives which have been, and are, present within the deaf community, issues of controversy, myths and data, using a mix of ASL and English materials and discussion. Successful presentation of cumulative portfolio required prior to registration.
Prerequisite: ASL 29202 and 49309; and special approval.
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 11102. 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 in 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 Intermediate Arabic I. 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 31301 ADVANCED INTERMEDIATE ARABIC I 3 Credit Hours
Continuation of the study of Modern Standard Arabic and colloquial Arabic in the context of Arab cultures. Further development of listening, speaking, reading and writing skills, using a variety of cultural materials.
Prerequisite: ARAB 21202.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARAB 31302 ADVANCED INTERMEDIATE ARABIC II 3 Credit Hours
Developing skills of reading, writing, speaking and understanding, this course enhances students' ability to express simple and compound sentences related to everyday activities; examine differences between present, past and future tenses; write assignments using a variety of writing techniques, i.e., describing geographical places, narrating an event, arguing against or for something, and reflecting on news reports; improve students understanding of the world around them using authentic materials on a variety of topics in Modern Standard Arabic; practice the use of grammatical structures and build new vocabulary related to Arab culture and social life in an attempt to improve students' ability to understand texts and express their ideas at an advanced level.
Prerequisite: ARAB 31301.
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 37231 TRANSLATION PRACTICE: ARABIC 1 Credit Hour
Translation practice with Arabic texts using principles and techniques learned in the lecture class.
Prerequisite: ARAB 21202.
Corequisite: TRST 30230.
Schedule Type: Lecture
Contact Hours: 1 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 41201 ADVANCED ARABIC I 3 Credit Hours
Continuation of ARAB 31302. Emphasis is on building active vocabulary for comprehension, reading authentic texts, writing of connected discourse and the development of higher levels of conversational proficiency.
Prerequisite: ARAB 31302; and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARAB 41202 ADVANCED ARABIC II 3 Credit Hours
Enhancing students' ability to speak, understand and write analytically; refining students' ability to use conjunctives and logical connectives at a higher level; understanding stylistic features such as tone, register, figures of speech (i.e., irony, metaphor, simile, alliteration, etc), phrase, clause, sentence and idiomatic structures; enhancing students' ability to use appropriate techniques in descriptive, argumentative, expository writing.
Prerequisite: ARAB 41201; and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARAB 47230 ADVANCED TRANSLATION PRACTICE: ARABIC 3 Credit Hours
Theory and practice course that discusses translation theory and emphasizes Arabic-English translation of selected texts in business, technology, medicine and law.
Prerequisite: ARAB 37231.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 67240 LITERARY AND CULTURAL TRANSLATION 3 Credit Hours
Translation of documents from a variety of literary and cultural sources, including literature, expository and journalistic prose, speeches and essays in and from Arabic. '
Prerequisite: ARAB 67010 and TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARAB 67250 COMMERCIAL, LEGAL AND DIPLOMATIC TRANSLATION 3 Credit Hours
Translating a variety of commercial, financial and legal texts, with special emphasis on text-types most generally translated by professional translators; examining diplomatic texts to understand the language of diplomacy and find the best way to translate it into the target language. Texts subjected for translation from Arabic into English and English into Arabic include employment contracts, articles of incorporation, annual financial statements, diplomatic or official notes, presidential speeches,and international business articles.
Prerequisite: ARAB 67010 and TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARAB 67251 SCIENTIFIC, TECHNICAL AND MEDICAL TRANSLATION 3 Credit Hours
Introducing methods and resources for the translation of scientific, technical, industrial and medical documents; translating a variety of scientific and medical texts, with special emphasis on text-types most generally translated by professional translators.
Prerequisite: TRST 60001 and TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 4 Credit Hours
Continued development of speaking, listening, reading and writing skills using a variety of cultural materials.
Prerequisite: CHIN 15102.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter
Attributes: TAG Foreign Language

CHIN 25202 INTERMEDIATE CHINESE II 4 Credit Hours
Continuation of CHIN 25201.
Prerequisite: CHIN 25201.
Schedule Type: Lecture
Contact Hours: 4 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 (DIVG) (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: Diversity Global, Kent Core Humanities, Transfer Module Humanities

CLAS 21405 THE ROMAN ACHIEVEMENT (DIVG) (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: Diversity Global, 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 (DIVG) (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: Diversity Global, 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 41305 CLASSICAL LITERARY STUDIES 3 Credit Hours
(Repeatable for a maximum of 12 credit hours) (Slashed with CLAS 51305) Study of a particular literary genre. Topics are individually designed to provide instruction and training of a specific genre of Greek or Roman literature.
Prerequisite: Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 51305 CLASSICAL LITERARY STUDIES 3 Credit Hours
(Repeatable for a maximum of 12 credit hours) (Slashed with CLAS 41305) Study of a particular literary genre. Topics are individually designed to provide instruction and training of a specific genre of Greek or Roman literature.
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 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 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 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.
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 33231 TRANSLATION PRACTICE: FRENCH 1 Credit Hour
Translation practice with French texts using principles and techniques learned in the lecture class. To be taken concurrently with TRST 30230.
Corequisite: TRST 30230.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

FR 33240 CONVERSATION FOR BUSINESS AND SPECIAL PURPOSES: FRENCH 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: FR 33211.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 43230 ADVANCED TRANSLATION PRACTICE: FRENCH (WIC) 3 Credit Hours
Theory and practice course that discusses translation theory and emphasizes French-to-English translation of selected texts in business, technology, medicine and law.
Prerequisite: FR 33231.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

FR 43240 BUSINESS AND SPECIAL TEXTS: FRENCH (ELR) 3 Credit Hours
Survey of the typical text types of business in the French culture and language. Practice sessions focus on reading and understanding specialized texts and on the translation and composition of selected special texts in French.
Prerequisite: FR 33212.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

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 63240 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. Translation into French will also be emphasized.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

FR 63250 COMMERCIAL, LEGAL AND DIPLOMATIC TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of commercial, economic, financial, legal, diplomatic and governmental documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

FR 63251 SCIENTIFIC, TECHNICAL AND MEDICAL TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of scientific, technical, industrial and medical documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 31231 TRANSLATION PRACTICE: GERMAN 1 Credit Hour
Translation practice with German texts using principles and techniques learned in the lecture class.
Corequisite: TRST 30230.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

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 41230 ADVANCED 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 in business, technology, medicine and law.
Prerequisite: GER 31231.
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 TWENTIETH-CENTURY GERMAN AUTHORS (ELR) (WIC) 3 Credit Hours
(Slashed with GER 51330) A survey of the major movements and authors of the twentieth 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
(Slashed with GER 51334) Development of the German novella from the eighteenth 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 hours at the 40000-level.
Schedule Type: Senior Project/Honors Thesis
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 51330 20TH-CENTURY GERMAN AUTHORS 3 Credit Hours
(Slashed with GER 41330) A survey of the major movements and authors of the twentieth century.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

GER 51334 THE GERMAN NOVELLA 3 Credit Hours
(Slashed with GER 41334) Development of the German novella from the 18th century to the present. Readings of major works, lectures, analyses; taught in German.
Prerequisite: Graduate standing.
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 61240 LITERARY AND CULTURAL TRANSLATION 3 Credit Hours
Translating documents from a variety of literary and cultural sources, including literature, expository and journalistic prose, scholarly treatises and essays. Translation into German will also be emphasized.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

GER 61250 COMMERCIAL, LEGAL AND DIPLOMATIC TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of commercial, economic, financial, legal, diplomatic and governmental documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

GER 61251 SCIENTIFIC, TECHNICAL AND MEDICAL TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of scientific, technical, industrial and medical documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 61901 READING GERMAN FOR GRADUATE STUDENTS 4 Credit Hours
Introduction to the fundamentals of German grammar for graduate students. Practice in reading and translation.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

GER 61902 READING GERMAN FOR GRADUATE STUDENTS 3 Credit Hours
Continued practice in reading and translation. Independent study of scholarly texts in the student's own discipline.
Prerequisite: GER 61901; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 sturdy 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 25201 INTERMEDIATE JAPANESE I 4 Credit Hours
Continued development of speaking, listening, reading and writing skills using a variety of cultural materials.
Prerequisite: Minimum C- grade in JAPN 15102.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter
Attributes: TAG Foreign Language

JAPN 25202 INTERMEDIATE JAPANESE II 4 Credit Hours
Continuation of JAPN 25201.
Prerequisite: JAPN 25201.
Schedule Type: Lecture
Contact Hours: 4 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 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 35325 READINGS IN MODERN JAPANESE 3 Credit Hours
Close readings of contemporary Japanese topics such as technology, pop culture, food, geography, etc. Emphasizes reading skills, vocabulary, and kanji.
Pre/corequisite: JAPN 35101.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

JAPN 35326 READINGS IN TRADITIONAL JAPANESE 3 Credit Hours
Close readings of traditional Japanese topics such as folk tales, arts, history, haiku, etc. Emphasizes reading skills, vocabulary and Kanji.
Pre/corequisite: JAPN 35101.
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 65240 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 treaties and essays.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

JAPN 65250 COMMERCIAL, LEGAL AND DIPLOMATIC TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of commercial, economic, financial, legal, diplomatic and governmental documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

JAPN 65251 SCIENTIFIC, TECHNICAL AND MEDICAL TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of scientific, technical, industrial and medical documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 (DIVG) (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: Diversity Global, 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 (DIVG) 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
Attributes: Diversity Global

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 (DIVG) 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
Attributes: Diversity Global

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 (DIVG) 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
Attributes: Diversity Global

MCLS 30089 INTERNATIONAL EXPERIENCE (DIVG) (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: Diversity Global, 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
(Slashed with 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 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 COMPUTERS IN SECOND LANGUAGE TEACHING 3 Credit Hours
(Slashed and MCLS 50654) Designed for future teachers of language and culture, this course explores the availability of technology, its implementation in the classroom and its integration with second language skills.
Prerequisite: MCLS 30660.
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
(Slashed with 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 strongly encouraged, but not required.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

MCLS 50654 COMPUTERS IN SECOND LANGUAGE TEACHING 3 Credit Hours
(Slashed with MCLS 40654) Designed for teachers of language and culture, this course explores the availability of technology, its implementation in the classroom and its integration with foreign language skills.
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) Students will be introduced to basic linguistic issues and how these relate to the language professions. Course focuses on functional principles, especially on 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) Students will 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) 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) Theory and practice in language education of heritage language speakers. Ethnic, minority, ancestral, and community languages and language practices will be explored with implications for second and additional language learning in English, foreign language, bilingual education.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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) 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) This course 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 will also be addressed directly, namely assessment and curriculum building.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 3 lecture
Grade Mode: Standard Letter

MCLS 60665 SECOND LANGUAGE WRITING 3 Credit Hours
(Cross-listed with ENG 63043) Theory and practice in teaching second language writing. Topics will 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 in 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) 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 in 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
(Slashed with 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 strongly encouraged, but not required.
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 32231 TRANSLATION PRACTICE: RUSSIAN 1 Credit Hour
Translation practice with Russian texts using principles and techniques learned in the lecture class.
Prerequisite: RUSS 22202.
Pre/corequisite: TRST 30230.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

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 42230 ADVANCED 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 in business, technology, medicine and law.
Prerequisite: RUSS 32231.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement, Writing Intensive Course

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 62240 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 treaties and essays. Translation into Russian will also be emphasized.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

RUSS 62250 COMMERCIAL, LEGAL AND DIPLOMATIC TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of commercial, economic, financial, legal, diplomatic and governmental documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

RUSS 62251 SCIENTIFIC, TECHNICAL AND MEDICAL TRANSLATION 3 Credit Hours
An introduction to methods and resource for the translation of scientific, technical, industrial and medical documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 IN SPAIN (DIVG) (ELR) 1-6 Credit Hours
(Repeatable for credit) Course is a faculty-led experience in Spain that involves both in-class and out-of-class experiences. Students are placed into an appropriate level language class according to their Common European Framework of References for Language Proficiency (CEFR) score. In class, students study grammar, vocabulary and culture; they also engage in reading, writing, listening and speaking activities as in a traditional language class. Out-of-class, students tour cultural sites and participate in various cultural activities.
Prerequisite: SPAN 18201.
Schedule Type: International Experience
Contact Hours: 1-6 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, 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 IN SPAIN (DIVG) (ELR) 1-6 Credit Hours
(Repeatable for credit) Course is a faculty-led experience in Spain that involves both in-class and out-of-class experiences. Students are placed into an appropriate level language class according to their Common European Framework of References for Language Proficiency (CEFR) score. In class, students study grammar, vocabulary and culture; they also engage in reading, writing, listening and speaking activities as in a traditional language class. Out-of-class, students tour cultural sites and participate in various cultural activities.
Prerequisite: SPAN 18202.
Schedule Type: International Experience
Contact Hours: 1-6 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, 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 38231 TRANSLATION PRACTICE: SPANISH 1 Credit Hour
Translation practice with Spanish texts using principles and techniques learned in the lecture class. To be taken concurrently with TRST 30230.
Corequisite: TRST 30230.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

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 IN SPAIN (DIVG) (ELR) 1-6 Credit Hours
(Repeatable for credit) Course is a faculty-led experience in Spain that involves both in-class and out-of-class experiences. Students are placed into an appropriate level language class according to their Common European Framework of References for Language Proficiency (CEFR) score. In class, students study grammar, vocabulary and culture; they also engage in reading, writing, listening and speaking activities as in a traditional language class. Out-of-class, students tour cultural sites and participate in various cultural activities.
Prerequisite: One Spanish (SPAN) upper-division course (30000-level or 40000-level).
Schedule Type: International Experience
Contact Hours: 1-6 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, 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 though 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
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: SPAN 38211 and SPAN 38213; and one of SPAN 38330 or SPAN 38331 or SPAN 38334 or SPAN 38335; and special approval.
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 48230 ADVANCED 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 in business, technology, medicine and law.
Prerequisite: SPAN 38231.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement, Writing Intensive Course

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, homoerotism 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 jíbarao 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, homoerotism 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 jíbarao 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 (DIVG) 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
Attributes: Diversity Global

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 68240 LITERARY AND CULTURAL TRANSLATION 3 Credit Hours
Translating documents from a variety of literary and cultural sources, including literature, expository and journalistic prose, scholarly treatises and essays. Translation into Spanish will also be emphasized.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPAN 68250 COMMERCIAL, LEGAL AND DIPLOMATIC TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of commercial, economic financial legal diplomatic and governmental documents.
Prerequisite: TRST 60010; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPAN 68251 SCIENTIFIC, TECHNICAL AND MEDICAL TRANSLATION 3 Credit Hours
An introduction to methods and resources for the translation of scientific, technical, industrial and medical documents.
Prerequisite: TRST 60010; 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: Junior standing.
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 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 DOCUMENTS IN MULTILINGUAL CONTEXTS 2 Credit Hours
An in-depth study of the role of documents in the multilingual information cycle as manifested in word-processing, desktop publishing and web-based environment.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 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
Practice-oriented introduction to terminology management and translation tools, such as term extraction, translation memory and machine translation.
Prerequisite: TRST 60009; and graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

TRST 60012 SOFTWARE LOCALIZATION 3 Credit Hours
Introduction to localization, the translation and adaptation of products, including software and web pages for sale or dissemination in specific target-language markets. Course introduces the basic concepts and techniques of localization and provides a hands-on introduction to relevant computer software.
Prerequisite: TRST 60011 with a minimum B grade; and graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

TRST 60013 LANGUAGE PROJECT MANAGEMENT 3 Credit Hours
Introduction to project management in the language industry. Course covers the body of knowledge and skills, including the use of project management software that is required to perform the duties of a translation or localization project manager. Beginning with an overview of the language industry, the course examines the language industry project.
Prerequisite: Minimum grade of B in TRST 60011 and in TRST 60012; and graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
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 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 studies.
Schedule Type: Project or Capstone
Contact Hours: 9 other
Grade Mode: Satisfactory/Unsatisfactory

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 61099; and graduate standing.
Schedule Type: Masters Thesis
Contact Hours: 6 other
Grade Mode: Satisfactory/Unsatisfactory-IP

TRST 70001 APPLIED LINGUISTICS AND TRANSLATION INFORMATICS 3 Credit Hours
Advanced topics in applied linguistics, including corpus and text linguistics as they apply to translation. Advanced topics in translation informatics in multilingual environments.
Prerequisite: TRST 60011; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 70003 TERMINOLOGY STUDIES 3 Credit Hours
Advanced topics in terminology, lexicography, ontology and knowledge organization systems.
Prerequisite: TRST 60011; and 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
A critical examination of the main trends in translation theory and an exploration of emerging developments in translation studies.
Prerequisite: TRST 60010; and 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 1-15 Credit Hours
(Repeatable for credit) Research for doctoral students. Credits earned may be applied toward degree with department approval.
Prerequisite: Doctoral standing.
Schedule Type: Research
Contact Hours: 1-15 other
Grade Mode: Satisfactory/Unsatisfactory-IP

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 (DIVG) (KHUM) 3 Credit Hours
An introduction to the diverse methods and subject matters in philosophy. Topics may include: What are the arguments for the existence of God? Do humans have free will? Can we know anything with certainty, and how do we know anything at all? Is what we see real, or might it be only an illusion? What makes a person a person - their mind, or their physical attributes? Is the mind the brain, or is it something else?
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Kent Core Humanities, TAG Arts and Humanities, Transfer Module Humanities

PHIL 11009 CRITICAL THINKING (KADL) 3 Credit Hours
Critical thinking is essential to every aspect of life, whether reading a news report or editorial, examining a contract or other legal document, or entering into a debate. 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 (DIVG) (KHUM) 3 Credit Hours
What makes an action morally right or morally wrong, and who gets to decide? Is ethics about performing actions that are morally right, or is it about being a virtuous person? This course examines at least three competing theories about ethics, including challenges to each theory. Students get to decide which theory they think is best, but every theory presents its own strengths and weaknesses.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Kent Core Humanities, TAG Arts and Humanities, Transfer Module Humanities

PHIL 21002 INTRODUCTION TO FORMAL LOGIC (KMCR) 3 Credit Hours
This course is designed to sharpen students' reasoning skills and to help them better understand the structure of reasoning in general. To do this, it introduces students to some formal languages, such as 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, without discussing the content of any particular argument. Course covers both the construction of formal proofs in these languages, and translation between them and English. 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 English-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 may include: abortion, the use of genetic technologies, organ donation and transplantation, the use of human research subjects, or end-of-life decision-making.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PHIL 30025 ENVIRONMENTAL ETHICS (ELR) 3 Credit Hours
A philosophical examination of ethical 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 (WIC) 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, Duns Scotus, and William of Ockham.
Prerequisite: At least one of PHIL 11009 or PHIL 21002 or PHIL 41038; and at least one of PHIL 11001 or PHIL 21001.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

PHIL 31011 ANCIENT PHILOSOPHY 3 Credit Hours
Examination of ancient philosophy, including Greek philosophers such as Plato and Aristotle, and those who inherited their philosophy. The ancients made the move from explanation based on myth to philosophical explanation. What did that move involve? How did the ancient philosophers answer questions about the nature of reality, what exists, the reliability of the senses and the types of things in the world? How did they conceive of the good life?
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
The course features selections from rationalists such as Descartes, Spinoza and Leibniz, and empiricists such as Locke, Berkeley and Hume, of the early modern philosophical period. Rationalists believe that all knowledge is grounded in a priori knowledge of necessary principles. Empiricists believe that knowledge is grounded in sensory experience. How did these differences shape their wider views of the world?
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
The course explores the development of 19th century German idealism by thinkers such as Fichte, Hegel and Schelling, whose work was prompted by Kant's transcendental idealism understood as critique or as the examination of the conditions for the possibility of knowledge acquisition as a touchstone for understanding the relationship among metaphysics, epistemology, ethics and political philosophy. The course thus begins with Kant's critical project before turning to its reception and the various 19th century responses to it. Additional selections from Kant's ethical and political writings may supplement this reading. The course may also cover additional figures, such as Schopenhauer, Nietzsche and Marx, whose work, in turn, is a response to German idealism itself.
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 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, and Tillich. 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 31035 PHILOSOPHY AND JUSTICE (DIVD) 3 Credit Hours
Consideration of topics and issues relevant to the concept of justice, as addressed by a range of classical and contemporary philosophers. Topics may include the nature of justice from feminist, libertarian, liberal, socialist, communitarian, egalitarian, and social welfare perspectives; and the application of these perspectives 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
Attributes: Diversity Domestic

PHIL 31040 FEMINIST PHILOSOPHY (DIVD) 3 Credit Hours
The course introduces feminist philosophy understood as social critique: a critique of unjust, exclusionary, and oppressive systemic practices surrounding sex, sexuality, and gender. As such, the course focuses on issues such as gender identity, sexual difference, the sex and gender binaries, gendered experience, trans embodiment, and LGBTQI marginalization. The course asks whether, and if so, how, feminist theory (more broadly) and feminist philosophy (more narrowly) could draw on canonical philosophical texts, traditions, and figures. The course focuses extensively on contemporary approaches, including queer, race, and gay and lesbian theory. 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
Attributes: Diversity Domestic

PHIL 31050 PHILOSOPHY THROUGH LITERATURE 3 Credit Hours
This 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 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
Investigation of concepts such as the artistic object and creative expression, and examination and critique of a range of theories designed to solve various problems in the field of aesthetics, or the study of the nature and principles of artistic beauty. Examples drawn from diverse genres such as the visual arts, drama, music, and dance provide the context for discussion 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 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 31070 AFRICAN AND AFRICAN-AMERICAN PHILOSOPHIES (DIVD) 3 Credit Hours
(Cross-listed with AFS 30010) Exploration of philosophical issues in African and African-American or Black thoughts systems. Topics may include the examination of the issue of the existence of a Black philosophy, the nature of traditional African knowledge, beliefs about personhood, the basis and rationality of witchcraft or other metaphysical beliefs, communalism, the nature of Black moral and aesthetic values, and contemporary analysis of race, racism, slavery, civil rights, pan-Africanism, and criticisms of colonialism, Black development, democratic governance and social policies regarding Blacks. 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
Attributes: Diversity Domestic

PHIL 31072 AMERICAN INDIAN PHILOSOPHIES (DIVD) 3 Credit Hours
Examination of philosophical issues and themes in American Indian world views with attention given to the reflections of contemporary native scholars. 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
Attributes: Diversity Domestic

PHIL 31075 PHILOSOPHY AND CULTURE (DIVG) 3 Credit Hours
Critical examination of various philosophical ideas and issues from diverse cultural perspectives. Topics include pluralism, coexistence, toleration and relativism. 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: Diversity Global

PHIL 31080 FOUNDATIONS IN THE HISTORY AND PHILOSOPHY OF SCIENCE 3 Credit Hours
(Cross-listed with HIST 31500) An introduction to the study of science as a social, cultural, and historical phenomenon with an emphasis on the history of science primarily in western civilization since 1500 and the major philosophical approaches to science developed in the twentieth century.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PHIL 31091 PHILOSOPHERS IN DEPTH (WIC) 3 Credit Hours
(Repeatable for credit) This course introduces students to the work and influence of one philosopher, in depth. The choice of philosopher whose work is investigated varies by instructor. 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. Students exhibit their understanding of the course content and mastery of philosophical writing through a variety of short and long assignments.
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 32091 SEMINAR: PHILOSOPHICAL REFLECTIONS 3 Credit Hours
Junior-level seminar with variable topics of philosophical interest. Please check the departmental website or contact the instructor regarding each semester's topic. 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: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter

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 41033 PHILOSOPHY OF IMAGINATION 3 Credit Hours
(Slashed with PHIL 51033) Drawing from a variety of approaches and figures in the history of philosophy, the course examines the imagination as a distinctive faculty and type of consciousness. Some of the central questions of the course are: How does the imagination relate to perception, judgment, or memory? How are we to understand the work of the imagination from an epistemic, metaphysical, moral, or aesthetic point of view? What role, if any, does the imagination play in scientific and philosophical inquiry?
Prerequisite: Any Philosophy (PHIL) 30000-level course.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PHIL 41034 PHILOSOPHY OF PSYCHOLOGY AND PSYCHIATRY 3 Credit Hours
(Slashed with PHIL 51034) This course addresses the question, “What are mental disorders?” using the methods of philosophy. We consider metaphysical questions such as, “Are mental disorders natural kinds or social kinds?” and “Can we provide a reductionist account of mental disorder?”, questions from Philosophy of Mind such as, “Can a theory of mind-brain dualism accommodate the possibility of mental disorder?”, and ethical questions such as, “How can we hold people with personality disorders responsible for their actions without blaming them?” By addressing the nature of mental disorder from a variety of philosophical angles, we will examine not only how each subfield answers the question in isolation, but also how each subfield might complement or contradict other philosophical approaches.
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 41037 RENAISSANCE AND EARLY MODERN PHILOSOPHY AND SCIENCE 3 Credit Hours
(Slashed with PHIL 51037) An investigation of the work of the most important European philosophers of the 15th-17th centuries, with a particular emphasis on the interrelation between philosophy and science in their thought, and on the influence of Greek philosophy on the intellectual life of the time.
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
(Slashed with PHIL 51038) (Cross-listed with CS 41038 and MATH 41038 and MATH 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: first, to develop a facility in understanding and using symbolic logic for various purposes, and second, 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: 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 41045 METALOGIC 3 Credit Hours
(Slashed with PHIL 51045) (Cross-listed with CS 41045 and CS 51045 and MATH 41045 and MATH 51045) A detailed, systematic study of metalogic for philosophy majors, mathematics majors, computer science majors, and anyone else interested in advanced study in logic. Topics include the soundness and completeness of the propositional and predicate calculi, the decidablility of propositional calculus, the undecidability of predicate calculus, Gödel's incompleteness proof for languages capable of expressing arithmetic, the co-extensionality of the set of general recursive functions, abacus computable functions, and Turing computable functions, and the philosophical motivations for the ChurchTuring Thesis that all computable functions are Turing computable.
Prerequisite: PHIL 41038.
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 41050 ANALYTIC PHILOSOPHY 3 Credit Hours
(Slashed with PHIL 51040) Focuses on the history and continued evolution of analytic philosophy. Readings include works by philosophers such as Frege, Russell, Moore, Wittgenstein, Schlick, Carnap, Ryle, Austin, Strawson, Grice, Quine, Davidson, Kripke, Putnam, and others. The aim of the course is (i) to understand the theses and themes that commonly arise in analytic philosophy, their philosophical motivations, and the problems they face, and (ii) to become familiar with the methodologies used by analytic philosophers including (but not limited to) logical analysis, appeals to ordinary language, the use of thought experiments, and the use of possible world semantics.
Prerequisite: Any Philosophy (PHIL) 30000-level 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 41065 PLATO 3 Credit Hours
(Slashed with PHIL 51065) Detailed examination of selected Platonic dialogues, with some attention to Plato's development and dismissal of certain pre-Socratic (and Socratic) themes.
Prerequisite: Any Philosophy (PHIL) 30000-level course.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PHIL 41070 ARISTOTLE 3 Credit Hours
(Slashed with PHIL 51070) Detailed examination of selected works of Aristotle, with some attention given to Aristotle's development and dismissal of certain pre-Socratic and Platonic themes.
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 41091 SEMINAR IN WORLD PHILOSOPHY 3 Credit Hours
(Repeatable for credit) (Slashed with PHIL 51091) 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 outside the Western canon.
Prerequisite: One of the following courses: PHIL 31001 or PHIL 31002 or PHIL 31003 or PHIL 31004 or PHIL 31005 or PHIL 31006 or PHIL 31010 or PHIL 31020.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter

PHIL 41491 SEMINAR IN ASIAN PHILOSOPHY (DIVG) 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
Attributes: Diversity Global

PHIL 41591 SEMINAR IN THE HISTORY OF ETHICS 3 Credit Hours
(Repeatable for credit) (Slashed with PHIL 51591) 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 the history of ethics.
Prerequisite: Any Philosophy (PHIL) 30000-level 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 with departmental approval prior to registration)
Prerequisite: Departmental special approval prior to registration.
Schedule Type: Individual Investigation
Contact Hours: 1-3 other
Grade Mode: Standard Letter-IP

PHIL 49999 SENIOR HONORS PROJECT (ELR) 2,3 Credit Hours
(Repeated registration permitted with departmental approval prior to registration) Thesis or other independent study or creative project.
Prerequisite: Departmental permission before registration.
Schedule Type: Senior Project/Honors Thesis
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 51033 PHILOSOPHY OF IMAGINATION 3 Credit Hours
(Slashed with PHIL 41033) Drawing from a variety of approaches and figures in the history of philosophy, the course examines the imagination as a distinctive faculty and type of consciousness. Some of the central questions of the course are: How does the imagination relate to perception, judgment, or memory? How are we to understand the work of the imagination from an epistemic, metaphysical, moral, or aesthetic point of view? What role, if any, does the imagination play in scientific and philosophical inquiry?
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PHIL 51034 PHILOSOPHY OF PSYCHOLOGY AND PSYCHIARTY 3 Credit Hours
(Slashed with PHIL 51034) This course addresses the question, “What are mental disorders?” using the methods of philosophy. We consider metaphysical questions such as, “Are mental disorders natural kinds or social kinds?” and “Can we provide a reductionist account of mental disorder?”, questions from Philosophy of Mind such as, “Can a theory of mind-brain dualism accommodate the possibility of mental disorder?”, and ethical questions such as, “How can we hold people with personality disorders responsible for their actions without blaming them?” By addressing the nature of mental disorder from a variety of philosophical angles, we will examine not only how each subfield answers the question in isolation, but also how each subfield might complement or contradict other philosophical approaches.
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 51037 RENAISSANCE AND EARLY MODERN PHILOSOPHY AND SCIENCE 3 Credit Hours
(Slashed with PHIL 41037) An investigation of the work of the most important European philosophers of the 15th-17th centuries, with a particular emphasis on the interrelation between philosophy and science in their thought, and on the influence of Greek philosophy on the intellectual life of the time.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PHIL 51038 INTERMEDIATE LOGIC 3 Credit Hours
(Slashed with PHIL 41038) (Cross-listed with CS 41038 and MATH 41038 and MATH 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: first, to develop a facility in understanding and using symbolic logic for various purposes, and second, 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 51045 METALOGIC 3 Credit Hours
(Slashed with PHIL 41045) (Cross-listed with CS 41045 and CS 51045 and MATH 41045 and MATH 51045) A detailed, systematic study of metalogic for philosophy majors, mathematics majors, computer science majors, and anyone else interested in advanced study in logic. Topics include the soundness and completeness of the propositional and predicate calculi, the decidablility of propositional calculus, the undecidability of predicate calculus, Gödel's incompleteness proof for languages capable of expressing arithmetic, the co-extensionality of the set of general recursive functions, abacus computable functions, and Turing computable functions, and the philosophical motivations for the ChurchTuring Thesis that all computable functions are Turing computable.
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 51050 ANALYTIC PHILOSOPHY 3 Credit Hours
(Slashed with PHIL 41050) Focuses on the history and continued evolution of analytic philosophy. Readings include works by philosophers such as Frege, Russell, Moore, Wittgenstein, Schlick, Carnap, Ryle, Austin, Strawson, Grice, Quine, Davidson, Kripke, Putnam, and others. The aim of the course is (i) to understand the theses and themes that commonly arise in analytic philosophy, their philosophical motivations, and the problems they face, and (ii) to become familiar with the methodologies used by analytic philosophers including (but not limited to) logical analysis, appeals to ordinary language, the use of thought experiments, and the use of possible world semantics.
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 51065 PLATO 3 Credit Hours
(Slashed with PHIL 51065) Detailed examination of selected platonic dialogues, with some attention to Plato's development and dismissal of certain pre-Socratic (and Socratic) themes.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PHIL 51070 ARISTOTLE 3 Credit Hours
(Slashed with PHIL 41070) Detailed examination of selected works of Aristotle, with some attention given to Aristotle's development and dismissal of certain pre-Socratic and Platonic themes.
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 51091 SEMINAR IN WORLD PHILOSOPHY 3 Credit Hours
(Repeatable for credit) (Slashed with PHIL 41091) 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 outside the Western canon.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 3 other
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 ETHICS 3 Credit Hours
(Repeatable for credit) (Slashed with PHIL 41591) 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 the history of ethics.
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 59996 INDIVIDUAL INVESTIGATION 1-3 Credit Hours
(Repeatable for credit with department approval)
Prerequisite: Graduate standing; and special approval.
Schedule Type: Individual Investigation
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

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 60201 SEMINAR:HISTORY OF PHILOSOPHY 3 Credit Hours
Intensive primary-source reading and critical appreciation of the significant works of one or more historical philosophers (other than Plato and Aristotle) or one or more historical philosophical issues.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PHIL 61000 RESPONSIBLE CONDUCT OF RESEARCH 1 Credit Hour
(Cross-listed with BMS 61000 and BMS 71000) Introduction into 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

PHIL 61050 PHILOSOPHY OF LANGUAGE 3 Credit Hours
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 61056 HERMENEUTICS 3 Credit Hours
Critical appreciation of the theories and practices of interpretation comprehended according to certain classical, current and emergent philosophic styles and traditions.
Prerequisite: Graduate standing.
Schedule Type: Lecture
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 69194 COLLEGE TEACHING OF PHILOSOPHY 1 Credit Hour
(Repeatable for credit) Discussion, critique and development of concepts to guide the teaching of philosophy including concepts of procedures and tactics for planning, pacing, presenting, representing and reviewing philosophic texts figures and issues.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Satisfactory/Unsatisfactory-IP

PHIL 69198 FIRST YEAR PAPER 1 Credit Hour
Research paper for graduate students conducted under direction of the advisory group.
Prerequisite: Graduate standing.
Schedule Type: Research
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory-IP

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 69997 COLLOQUIUM 1 Credit Hour
(Repeatable for credit) Student, faculty and invited guests participate in conference-like contexts to present and discuss issues of current philosophic interest.
Prerequisite: Graduate standing.
Schedule Type: Colloquium
Contact Hours: 1 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 12202 TECHNICAL PHYSICS II (KBS) (KLAB) 4 Credit Hours
Introduction to principles of physics, including fluids, thermodynamics, electricity and magnetism.
Prerequisite: PHY 12201.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 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 22564 INTRODUCTION TO MATERIALS PHYSICS 3 Credit Hours
Survey of mechanical and electronic properties of materials with application in science and technology. Metals, semiconductors, ceramics, polymers and liquid crystals, and other special materials will be addressed.
Prerequisite: PHY 23102.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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.
Prerequisite: PHY 36001; and 10 credit hours of additional Physics (PHY) courses.
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 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 and MATH 32052.
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) 1-10 Credit Hours
(Repeatable for credit) Thesis for departmental, general or university honors must be 1-10 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: Honors senior standing; and special approval.
Schedule Type: Senior Project/Honors Thesis
Contact Hours: 1-10 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 41010 BIOPHOTONICS 3 Credit Hours
(Slashed with PHY 51010) (Cross-listed with BSCI 41110 and BSCI 51110 and CHEM 41010 and CHEM 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

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
Galactic structure, stellar formation and evolution, origin of the elements (or nucleosynthesis), nonoptical astronomies, and description of various cosmological theories.
Prerequisite: MATH 12003.
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
An introduction to thermodynamics and statistical mechanics, with applications in material science and engineering.
Prerequisite: PHY 36001.
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
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 45201.
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 32052.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

PHY 46401 INTRODUCTION TO SOLID STATE PHYSICS 3 Credit Hours
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.
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 51010 BIOPHOTONICS 3 Credit Hours
(Slashed with PHY 41010) (Cross-listed with BSCI 41110 and BSCI 51110 and CHEM 41010 and CHEM 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

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
Galactic structure, stellar formation and evolution, origin of the elements (or nucleosynthesis), non optical astronomies, and a description of various cosmological theories. Graduate standing.
Prerequisite: MATH 12003.
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
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
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
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 (DIVG) (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: Diversity Global, Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

POL 10100 AMERICAN POLITICS (DIVD) (KSS) 3 Credit Hours
Covers the basic elements of politics at the national level in the United States, including structures, processes, behaviors, institutions, policies. Special emphasis is given to conflicting theories of power as they apply to different economic, sexual and racial groups.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic, Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module 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 (DIVG) (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: Diversity Global, 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 PACS 30000) Study of the events of the 1960s in the United States leading up to May 4, 1970, when the Ohio National Guard killed and wounded Kent State University students protesting the war in Vietnam and Cambodia. Topics are considered within their cultural, historical, social and political contexts. Course also examines the aftermath of May 4, including the controversy over constructing the Gym Annex on the site of the shootings, 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 to 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: POL 10100.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

POL 30110 THE CONGRESS 3 Credit Hours
Course covers the powers of Congress, its organization, leadership of the two houses, role of the parties, relationships with the chief executive and the executive agencies, as well as recent reforms enacted by the House and Senate.
Prerequisite: POL 10100.
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 10100.
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 United States and the relationship between the judicial system and the larger American social system. Nonmajors should contact the Department of Political Science for a prerequisite override.
Prerequisite: POL 10100.
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. Nonmajors should contact the Department of Political Science for a prerequisite override.
Prerequisite: POL 10100 or 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 (DIVG) 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
Attributes: Diversity Global

POL 30530 ASIAN POLITICS (DIVG) 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
Attributes: Diversity Global

POL 30540 AFRICAN POLITICS (DIVG) 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
Attributes: Diversity Global

POL 30550 LATIN AMERICAN POLITICS (DIVG) 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
Attributes: Diversity Global

POL 30560 MIDDLE EAST POLITICS (DIVG) 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
Attributes: Diversity Global

POL 30570 PALESTINE AND ISRAEL (DIVG) 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
Attributes: Diversity Global

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 10100 or 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: POL 10100.
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: POL 10100.
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: POL 10100.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

POL 40168 MOOT COURT I 2 Credit Hours
Prepares students for oral advocacy in a simulated court room experience known as moot court. Preparation includes learning pre-trial and trial processes, including case evaluation, legal investigation, discovery and motion practice and trial processes.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

POL 40171 MOOT COURT II 1 Credit Hour
Prepares students to engage in oral advocacy by using a learning experiential exercise, including a regional competition hosted by the American Collegiate Mock Trial Association, known as moot court. Students perform relevant roles (including case evaluation and strategy, legal investigation, discovery and motion practice, and trial preparation) both in the competition and in preparing a hypothetical case for trial.
Prerequisite: POL 40168.
Schedule Type: Lecture
Contact Hours: 1 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: POL 10100.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

POL 40183 CONSTITUTIONAL LAW: CIVIL RIGHTS AND LIBERTIES (DIVD) 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: POL 10100.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic

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 10500; and POL 10100 or 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 10100 or 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 10100 or 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 10100 or POL 10300.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

POL 40470 WOMEN, POLITICS AND POLICY (DIVD) 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 10100 or POL 10300.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic

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 (DIVG) 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
Attributes: Diversity Global

POL 40560 HUMAN RIGHTS AND SOCIAL JUSTICE (DIVG) 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
Attributes: Diversity Global

POL 40589 INTERNATIONAL EXPERIENCE (DIVG) (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: Diversity Global, 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 10100 or POL 10300; 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 (DIVD) 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 10100 or POL 10500.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic

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 10100 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, POL 10100, POL 10300, and POL 10500; 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 43189 WICKED PROBLEMS: TACKLING GLOBAL ISSUES IN THE 21ST CENTURY (DIVG) (ELR) 3 Credit Hours
(Cross-listed with ESCI 43189 and GEOG 43189) 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. Registration in Florence semester abroad required.
Prerequisite: None.
Schedule Type: International Experience, Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Experiential Learning Requirement

POL 43289 WEALTH, CONSUMPTION, POVERTY AND HUNGER: THE POLITICS OF INEQUALITY (DIVG) (ELR) 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 the 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 the 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. Registration in Florence semester abroad required.
Prerequisite: None.
Schedule Type: International Experience, Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Experiential Learning Requirement

POL 43389 GOOD GOVERNANCE AND SUSTAINABLE DEVELOPMENT (DIVG) (ELR) 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 the growing body of international institutions that deliver and implement policies at the transnational level. Along the way, the course examines a range of the 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. Registration in Florence semester abroad required.
Prerequisite: None.
Schedule Type: International Experience, Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global, Experiential Learning Requirement

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 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) Over the past 30 years, many states and societies have negotiated complicated transitions from authoritarianism, widespread human rights violations and intractable civil conflict towards 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 60510 POLITICS OF DEVELOPMENT 3 Credit Hours
(Slashed with POL 70510) Course surveys the scholarship on political development, examining the ways in which the conceptualization of development has evolved over time, looking specifically at institutionalization, state failure and the role of civil society.
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. 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

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 60907 TERRORISM AND HUMAN RIGHTS 3 Credit Hours
(Slashed with POL 70907) Examines how governments try to adhere to the rule of law in managing terrorist threats in a post 9-11 era, striking a balance between the competing demands of public safety, personal freedom and human rights. Topics include understanding terrorism as a problem for western governments, the rule of law and human rights.
Prerequisite: 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 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 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)(Slashed with PADM 60475) 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) Over the past 30 years, many states and societies have negotiated complicated transitions from authoritarianism, widespread human rights violations and intractable civil conflict towards 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 70510 POLITICS OF DEVELOPMENT 3 Credit Hours
(Slashed with POL 60510) Course surveys the scholarship on political development, examining the ways in which the conceptualization of development has evolved over time, looking specifically at institutionalization, state failure and the role of civil society.
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. Emphases 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 70907 TERRORISM AND HUMAN RIGHTS 3 Credit Hours
(Slashed with POL 60907) Examines how governments try to adhere to the rule of law in managing terrorist threats in a post 9-11 era, thus striking a balance between the competing demands of public safety, personal freedom, and human rights. Topics include understanding terrorism as a problem for western governments, the rule of law, and human rights.
Prerequisite: 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 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 in at least two semesters is required, and 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

POL 81299 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: 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 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: 3 other
Grade Mode: Standard Letter-IP

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 60475 CAPSTONE SEMINAR 3 Credit Hours
(Repeatable for credit) (Cross-listed with POL 70475) Students complete an approved, written project that is analytical and research-based.
Prerequisite: Public administration major; and graduate standing; and special approval.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter-IP

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 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 (DIVD) (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: Diversity Domestic, Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

PSYC 20651 CHILD PSYCHOLOGY (DIVD) (KSS) 3 Credit Hours
A review of the data, concepts and theories of psychology that contribute to the understanding of child development from conception to age 14.
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic, Kent Core Social Sciences, TAG Social and Behavioral Sciences, Transfer Module Social Sciences

PSYC 21211 PSYCHOLOGY OF EVERYDAY LIFE (DIVD) (KSS) 3 Credit Hours
A review of theories, concepts and data that contribute to the understanding of human adjustment. Topics may include the following: personality, stress and coping, transitions from adolescence to adulthood, psychological disorders and psychotherapy.
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Domestic, Kent Core Social Sciences, Transfer Module Social Sciences

PSYC 21621 QUANTITATIVE METHODS IN PSYCHOLOGY I 3 Credit Hours
Application of quantitative, statistical methods in psychological research. Descriptive and inferential methods (includes ANOVA, t-test and correlation).
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 30005 CAREER PATHWAYS IN PSYCHOLOGY 1 Credit Hour
Designed to equip students with a better understanding of the career pathways available to them in psychology at the bachelor's and graduate level. 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 30111 FORENSIC PSYCHOLOGY 3 Credit Hours
Surveys major areas of forensic psychology, which focuses on the application of the science and profession of psychology to legal settings. Topics include roles and responsibilities of forensic psychologists, forensic assessment, psychological theories of criminal behavior, law enforcement psychology and eyewitness testimony.
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 30651 ADOLESCENT PSYCHOLOGY 3 Credit Hours
Students review the theories, concepts and data 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: PSYC 11762; and HDF 24012 or PSYC 20651.
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: PSYC 11762; and HDF 24012 or PSYC 20651.
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 on 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
Factors that provide the energy and direction for behaviors, emotions and cognitive processes. Seeks to answer the question "why" concerning the things people do, feel and think. A survey approach is used to include both the traditional and newly emerging concepts in motivation.
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 30822 SPORT PSYCHOLOGY 3 Credit Hours
Introduction to the use of psychological theories and interventions in sport and performance settings. Can include topics such as performance anxiety, maintaining focus under pressure, motivation, leadership, among others.
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 31141 PERCEPTION 3 Credit Hours
Investigates how humans detect, organize and interpret information from the environment. 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
A review of the data, concepts and theories of psychology that contribute to the understanding of personality.
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: 1-6 other
Grade Mode: Satisfactory/Unsatisfactory-IP
Attributes: Experiential Learning Requirement

PSYC 31532 SOCIAL PSYCHOLOGY 3 Credit Hours
Study of environmental/situational influences on a person's thoughts, behaviors and feelings-focus on topics such as aggression, attitudes and behaviors, conformity, helping, personal relationships and social cognition.
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
The rationale, logic and procedures of scientific research in psychology with an emphasis on measurement, causal inference and research design.
Prerequisite: PSYC 11762 and PSYC 21621.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

PSYC 31634 ANIMAL COGNITION 3 Credit Hours
Focuses on the nature of cognition and intelligence in nonhuman animals. Topics include animal studies of perception and attention, associative learning, memory, spatial cognition, concept formation, reasoning and language in nonhuman animals.
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 31684 QUANTITATIVE METHODS IN PSYCHOLOGY II 3 Credit Hours
Small sample theory, analysis of variance, linear regression and nonparametric statistics (e.g. Chi Square). Course may include qualitative analyses and computer- based data analyses with SPSS software.
Prerequisite: PSYC 21621.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 31773 INDUSTRIAL PSYCHOLOGY 3 Credit Hours
Application of principles, facts and theories of psychology to people at work. Includes 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
Survey of the definitions as well as the biological, psychological and sociocultural causes of various psychological disorders. Illustrations of these disorders with cases. 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
Covers the biological, psychological and socio-cultural factors influencing the development of psychological disorders in children and adolescents. 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 or senior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 40231 PSYCHOLOGICAL ASSESSMENT 3 Credit Hours
Introduction to psychometrics and test theory. Use and basic interpretation of intellectual and personality tests. Skills in using tests at a professional level not given.
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 in 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 in 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 junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 40383 INTRODUCTION TO CLINICAL PSYCHOLOGY 3 Credit Hours
Application of psychological principles and techniques to the problems of the individual. Course is designed to introduce the field of clinical psychology, including models of understanding abnormal behavior, treatment of individuals and ethics and professional issues.
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 40445 COGNITIVE PSYCHOLOGY 3 Credit Hours
Covers the mental processes that underline human thought and behavior, such as attention, memory, comprehension, reasoning, problem-solving and language. Considers established and current theoretical models, research methods and experimental results.
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, 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 in language production, comprehension and development. Within each broad area 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 (DIVD) 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
Attributes: Diversity Domestic

PSYC 40974 HISTORY OF PSYCHOLOGY 3 Credit Hours
(Slashed with PSYC 50974) Course examines the historical context, influences and individuals instrumental in the development of psychology. Course organization is designed to compare and contrast systems, theories and fundamental issues with which psychologists have concerned themselves in past and contemporary stages of the science.
Prerequisite: PSYC 11762; and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 41043 BASIC LEARNING PROCESSES 3 Credit Hours
Examination of basic principles of Pavlovian conditioning, instrumental conditioning, animal learning and memory processes and animal cognition. Emphasis on major empirical phenomena derived from research with animals with reference to related psychological processes in humans.
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 or coursework in 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: 7-42 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 41498 INDIVIDUAL INVESTIGATION (ELR) 1-6 Credit Hours
(Repeatable for maximum 16 credit hours) 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: 1-6 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
Role of psychological and social factors in health and illness, typically covering three general areas: (1) psychological factors affecting disease, (2) psychological and social consequences of illness and (3) psychotherapeutic interventions.
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 use of psychological theory to predict adoption and adherence to exercise behavior; social and personality influences on exercise behavior; research on 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.
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 in previous courses to better understand the process of conducting research in the field of psychology. Through hands-on experiences, students use basic statistical analyses to answer hypotheses; review scientific literature and generate hypotheses; test hypotheses using a dataset and present 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)(Cross-listed with BMS 50701 and BMS 70701) 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 43002 CURRENT TECHNIQUES IN BEHAVIORAL NEUROSCIENCE 3 Credit Hours
(Slashed with PSYC 53002 and PSYC 73002)(Cross-listed with BMS 50702 and BMS 70702) Course details current and advanced techniques used in behavioral neuroscience research. Emphasis is placed on understanding the theory behind each technique, and its use in understanding the neural mechanisms of behavior. Detailed protocols for each technique are also covered.
Prerequisite: Minimum B grade in BSCI 30140 or BSCI 30156 or BSCI 30520 or PSYC 41363; and minimum 3.250 overall GPA; and junior standing; and special approval from instructor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 43003 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours
(Slashed with PSYC 53003 and PSYC 73003)(Cross-listed with BMS 50703 and 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: BSCI 30520 or PSYC 41363 with a minimum B grade; and minimum 3.250 overall GPA; and junior standing; and special approval from instructor.
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 psychoactivetherapeutic 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 in 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 in 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 50974 HISTORY OF PSYCHOLOGY 3 Credit Hours
(Slashed with PSYC 40974) Course examines the historical context, influences and individuals instrumental in the development of psychology. Course organization is designed to compare and contrast systems theories and fundamental issues with which psychologists have concerned themselves in past and contemporary states of the science.
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)(Cross-listed with BMS 50701 and BMS 70701) 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 53002 CURRENT TECHNIQUES IN BEHAVIORAL NEUROSCIENCE 3 Credit Hours
(Slashed with PSYC 43002 and PSYC 73002)(Cross-listed with BMS 50702 and BMS 70702) Course details current and advanced techniques used in behavioral neuroscience research. Emphasis is placed on understanding the theory behind each technique, and its use in understanding the neural mechanisms of behavior. Detailed protocols for each technique are also covered.
Prerequisite: Graduate standing; and special approval from instructor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 53003 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours
(Slashed with PSYC 43003 and PSYC 73003)(Cross-listed with BMS 50703 and 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; and special approval from instructor.
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 psychoactivetherapeutic 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 60110 INTRODUCTION TO PSYCHOPATHOLOGY: CHILD 3 Credit Hours
(Slashed with PSYC 70110) Introduction to psychopathology from a developmental perspective. Covers models of classification and specific disorders of childhood.
Prerequisite: Clinical psychology or psychological science major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 60170 INTRODUCTION TO PSYCHOPATHOLOGY: ADULT 3 Credit Hours
(Slashed with PSYC 70170) An examination of the etiology, symptomology and theoretical models of adult 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: 1-3 lecture
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: ADULT 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 60275 BEHAVIORAL ASSESSMENT 3 Credit Hours
(Slashed with PSYC 70275) Considers behavioral assessment from an empirical as well as an applied perspective. Intended for persons familiar with general assessment, psychopathology and psychotherapy issues.
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 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 1-6 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: 1-6 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 60950 HISTORY AND CONTEMPORARY SYSTEMS 3 Credit Hours
(Slashed with PSYC 70950) Relationships between historical antecedents and the major contemporary systems and theories of psychology.
Prerequisite: Clinical psychology or psychological science major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 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, 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

PSYC 61260 THEORIES OF PERSONALITY 3 Credit Hours
(Slashed with PSYC 71260) Consideration of major theoretical orientations, including psychoanalysis, phenomenology and those stressing learning. Emphasis on principal concepts; deals less with research methods and findings.
Prerequisite: Clinical psychology or psychological science major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 61350 PHYSIOLOGICAL PSYCHOLOGY 3 Credit Hours
(Slashed with PSYC 71350) 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 61498 RESEARCH 1-15 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: 1-15 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: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 62492 ADVANCED PRACTICUM 1-3 Credit Hours
(Repeatable for credit) 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: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

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 70110 INTRODUCTION TO PSYCHOPATHOLOGY: CHILD 3 Credit Hours
(Slashed with PSYC 60110) Introduction to psychopathology from a developmental perspective. Covers models of classification and specific disorders of childhood.
Prerequisite: Clinical psychology or psychological science major; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 70170 INTRODUCTION TO PSYCHOPATHOLOGY: ADULT 3 Credit Hours
(Slashed with PSYC 60170) An examination of the etiology, symptomology and theoretical models of adult 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: Lecture, Practical Experience
Contact Hours: 3 lecture
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: ADULT 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 70275 BEHAVIORAL ASSESSMENT 3 Credit Hours
(Slashed with PSYC 60275) Considers behavioral assessment from an empirical as well as an applied perspective. Intended for persons familiar with general assessment, psychopathology and psychotherapy issues.
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: 1-3 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 in 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 in 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: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

PSYC 70395 ADVANCED TOPICS IN CLINICAL PSYCHOLOGY 1-6 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: 1-6 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 70950 HISTORY AND CONTEMPORARY SYSTEMS 3 Credit Hours
(Slashed with PSYC 60950) Relationships between historical antecedents and the major contemporary systems and theories of psychology.
Prerequisite: Clinical psychology or psychological science major; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 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 71260 THEORIES OF PERSONALITY 3 Credit Hours
(Slashed with PSYC 61260) Consideration of major theoretical orientations, including psychoanalysis, phenomenology and those stressing learning. Emphasis on principal concepts; deals less with research methods and findings.
Prerequisite: Clinical psychology or psychological science major; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 71350 PHYSIOLOGICAL PSYCHOLOGY 3 Credit Hours
(Slashed with PSYC 61350) 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 maximum 6 credit hours) 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 credt) 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) 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 ADVANCED PRACTICUM 1-3 Credit Hours
(Repeatable for credit) 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: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

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)(Cross-listed with BMS 50701 and BMS 70701) 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 73002 CURRENT TECHNIQUES IN BEHAVIORAL NEUROSCIENCE 3 Credit Hours
(Slashed with PSYC 43002 and PSYC 53002)(Cross-listed with BMS 50702 and BMS 70702) Course details current and advanced techniques used in behavioral neuroscience research. Emphasis is placed on understanding the theory behind each technique, and its use in understanding the neural mechanisms of behavior. Detailed protocols for each technique are also covered.
Prerequisite: Doctoral standing; and special approval from instructor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PSYC 73003 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours
(Slashed with PSYC 43003 and PSYC 53003)(Cross-listed with BMS 50703 and 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: Doctoral standing; and special approval from instructor.
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 psychoactivetherapeutic 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 HIERARCHICAL LINEAR 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 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 (DIVD) 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
Attributes: Diversity Domestic

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 (DIVD) 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
Attributes: Diversity Domestic

CRIM 37411 WOMEN IN CRIME AND JUSTICE (DIVD) 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
Attributes: Diversity Domestic

CRIM 37511 IMMIGRATION: LAW, CRIME AND JUSTICE (DIVD) 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
Attributes: Diversity Domestic

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 required of all MA students. An analysis of current issues in the legislative, policing, judicial and correctional components of the justice system. Students synthesize knowledge through the completion of an approved, written project that is analytical and research-based.
Prerequisite: CRIM 56800 and CRIM 66761 and CRIM 66763 and CRIM 66768 and CRIM 66770 and CRIM 66772; and graduate standing.
Schedule Type: Project or Capstone
Contact Hours: 3 other
Grade Mode: Standard Letter

Sociology (SOC)

SOC 12050 INTRODUCTION TO SOCIOLOGY (DIVD) (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: Diversity Domestic, 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 (DIVG) (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: Diversity Global, 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 (DIVD) 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
Attributes: Diversity Domestic

SOC 32565 SOCIOLOGY OF SEXUALITIES (DIVD) 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
Attributes: Diversity Domestic

SOC 32569 MINORITIES IN THE UNITED STATES (DIVD) 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: Diversity Domestic, TAG Social and Behavioral Sciences

SOC 32570 INEQUALITY IN SOCIETIES (DIVD) 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
Attributes: Diversity Domestic

SOC 32673 CITIES AND URBAN SOCIAL LIFE (DIVG) 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
Attributes: Diversity Global

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 (DIVD) 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
Attributes: Diversity Domestic

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 3 Credit Hours
(Slashed with SOC 52560) Food is essential, but like every other aspect of our lives, the meaning of food and the 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 – about our history, culture, our gender and race and ethnicity, socio-economic status, religious beliefs and our family life? How does food consumption differ in different societies? How do the media and corporations influence our food choices? What does food mean 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?
Prerequisite: SOC 12050.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

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 3 Credit Hours
(Slashed with SOC 52565) Designed to be an elective in the Social Justice and Social Change concentration, Environmental Sociology 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 will be 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: SOC 12050 and junior standing.
Schedule Type: Lecture, Seminar
Contact Hours: 3 lecture, 0 lab, 0 other
Grade Mode: Standard Letter

SOC 42568 RACE AND ETHNIC STUDIES (DIVD) 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
Attributes: Diversity Domestic

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 (DIVD) 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
Attributes: Diversity Domestic

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 the 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 – about our history, culture, our gender and race and ethnicity, socio-economic status, religious beliefs and our family life? How does food consumption differ in different societies? How do the media and corporations influence our food choices? What does food mean 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?
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) Environmental Sociology 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 will be 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, 0 lab, 0 other
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, interactionalism 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 62433 SOCIAL STRUCTURE AND PERSONALITY 3 Credit Hours
(Slashed with SOC 72433) Examination of contemporary theory and research on linkages between personality and society. Emphasis is on the dynamics of those linkages and their effects on both individuals and social structures. Akron 3850:634.
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 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 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 62877 SOCIOLOGY OF AGING AND THE LIFE COURSE 3 Credit Hours
(Slashed with SOC 72877) Study of the sociology of aging and the life course, covering the major stages of young adulthood, mid-life, and later life. Topics include demography of aging, transition to adulthood, educational attainment, romantic relationships and cohabitation, marriage, parenting, work and retirement, theories of aging, aging and social policy, neighborhoods and aging, later life living arrangements, and death and dying.
Prerequisite: Sociology major; and 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, interactionalism 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 iwth 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 72433 SOCIAL STRUCTURE AND PERSONALITY 3 Credit Hours
(Slashed with SOC 62433) Examination of contemporary theory and research on linkages between personality and society. Emphasis is on the dynamics of those linkages and their effects on both individuals and social structures. Akron 3850:634.
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 72877 SOCIOLOGY OF AGING AND THE LIFE COURSE 3 Credit Hours
(Slashed with SOC 62877) Study of the sociology of aging and the life course, covering the major stages of young adulthood, mid-life, and later life. Topics include demography of aging, transition to adulthood, educational attainment, romantic relationships and cohabitation, marriage, parenting, work and retirement, theories of aging, aging and social policy, neighborhoods and aging, later life living arrangements, and death and dying. Akron 3850:678.
Prerequisite: Sociology major; and 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
(May be repeated for up to 6 credit hours) Research study under the direction of a BMS faculty mentor. Students majoring in biology (BSCI), biotechnology (BTEC), chemistry (CHEM), integrated life sciences (ILS) and physics (PHY) majors are eligible to enroll in this course, but must have 18 credit hours in their major completed.
Prerequisite: Minimum overall 2.750 GPA; and departmental and faculty mentor approvals required.
Schedule Type: Individual Investigation
Contact Hours: 3-9 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

BMS 50701 CLINICAL NEUROANATOMY 3 Credit Hours
(Slashed with BMS 70701)(Cross-listed with PSYC 43001, 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: Graduate standing and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

BMS 50702 CURRENT TECHNIQUES IN BEHAVIORAL NEUROSCIENCE 3 Credit Hours
(Slashed with BMS 70702)(Cross-listed with PSYC 43002, PSYC 53002 and PSYC 73002) Course details current and advanced techniques used in behavioral neuroscience research. Emphasis is placed on understanding the theory behind each technique, and its use in understanding the neural mechanisms of behavior. Detailed protocols for each technique are also covered.
Prerequisite: Graduate standing and special approval from instructor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

BMS 50703 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours
(Slashed with BMS 70703)(Cross-listed with PSYC 43003, PSYC 53003 and PSYC 73003) 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 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 60441 MEDICAL PHYSIOLOGY 5 Credit Hours
(Slashed with BMS 70441) Investigation of how the integration of biophysics, biochemistry and structure induces organ function in the cardiovascular, renal, respiratory, endocrine and gastrointestinal systems. Limited discussion of how pathologies alter normal organ function.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 5 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 60501 INTRODUCTION TO PHARMACOLOGY 1 Credit Hour
(Slashed with BMS 70501) Satisfactory/Unsatisfactory (S/U) graded. Basic aspects of pharmacology. Intended to provide a general understanding of fundamental concepts in pharmacology and opportunities for students to read and present peer-reviewed manuscripts covering introductory pharmacological concepts.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory

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 60503 PHARMACOLOGY JOURNAL REVIEW 1 Credit Hour
(Repeatable maximum four times) (Slashed with BMS 70503) Satisfactory/Unsatisfactory (S/U) graded. Review and discussion of advanced pharmacology journal articles. Students will present and critique articles from peer-viewed publications and actively participate in discussions. Background in physiology and biochemistry required.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory

BMS 60504 CHEMOTHERAPHY AND TOXICOLOGY 2 Credit Hours
(Slashed with BMS 70504) Specialized topics in chemotherapy of microbial and neoplastic diseases as well as principles of toxicology.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

BMS 60505 DRUG DISCOVERY AND CLINICAL PHARMACOLOGY 2 Credit Hours
(Slashed with BMS 70505) Basic concepts underlying drug discovery and clinical pharmacology including principles of pharmacokinetics, metabolism, pharmacogenomics and drug design.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

BMS 60506 HERBALS AND SUPPLEMENTS 2 Credit Hours
(Slashed with BMS 70506) Provides an understanding of the basic scientific, therapeutic and pharmacological principles underlying the use of medicinal plants, herbal medications, natural products, vitamins, minerals and supplements.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 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) (Cross-listed with PHIL 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: 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: Graduate Standing in the School of Biomedical Sciences; Biological Anthropology, Biomedical mathematics, Cellular and Molecular Biology, Neurosciences, Pharmacology, Physiology Interdisciplinary.
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 70441 MEDICAL PHYSIOLOGY 5 Credit Hours
(Slashed with BMS 60441) Investigation of how the integration of biophysics, biochemistry and structure induces organ function in the cardiovascular, renal, respiratory, endocrine and gastrointestinal systems. Limited discussion of how pathologies alter normal organ function.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 5 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 70501 INTRODUCTION TO PHARMACOLOGY 1 Credit Hour
(Slashed with BMS 60501) Satisfactory/Unsatisfactory (S/U) graded. Basic aspects of pharmacology. Intended to provide a general understanding of fundamental concepts in pharmacology and opportunities for students to read and present peer-reviewed manuscripts covering introductory pharmacological concepts.
Prerequisite: Doctoral standing.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory-IP

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 70503 PHARMACOLOGY JOURNAL REVIEW 1 Credit Hour
(Repeatable maximum four times) (Slashed with BMS 60503) Review and discussion of advanced pharmacology journal articles. Students will present and critique articles from peer-viewed publications and actively participate in discussions. Background in physiology and biochemistry required. Satisfactory/Unsatisfactory (S/U) graded.
Prerequisite: Doctoral standing.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory

BMS 70504 CHEMOTHERAPY AND TOXICOLOGY 2 Credit Hours
(Slashed with BMS 60504) Specialized topics in chemotherapy of microbial and neoplastic diseases as well as principles of toxicology.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

BMS 70505 DRUG DISCOVERY AND CLINICAL PHARMACOLOGY 2 Credit Hours
(Slashed with BMS 60505) Basic concepts underlying drug discovery and clinical pharmacology including principles of pharmacokinetics, metabolism, pharmacogenomics and drug design.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

BMS 70506 HERBALS AND SUPPLEMENTS 2 Credit Hours
(Slashed with BMS 60506) Provides an understanding of the basic scientific, therapeutic and pharmacological principles underlying the use of medicinal plants, herbal medications, natural products, vitamins, minerals and supplements.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 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 70701 CLINICAL NEUROANATOMY 3 Credit Hours
(Slashed with BMS 50701)(Cross-listed with PSYC 43001, 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: Doctoral standing; and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

BMS 70702 CURRENT TECHNIQUES IN BEHAVIORAL NEUROSCIENCE 3 Credit Hours
(Slashed with BMS 50702)(Cross-listed with PSYC 43002, PSYC 53002 and PSYC 73002) Course details current and advanced techniques used in behavioral neuroscience research. Emphasis is placed on understanding the theory behind each technique, and its use in understanding the neural mechanisms of behavior. Detailed protocols for each technique are also covered.
Prerequisite: Doctoral standing and special approval from instructor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

BMS 70703 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours
(Slashed with BMS 50703)(Cross-listed with PSYC 43003, PSYC 53003 and PSYC 73003) 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) (Cross-listed with PHIL 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 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 Multidisciplinary Social 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 (DIVG) (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: Diversity Global, 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

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 twice for credit) Senior Project is a thesis or independent study done under the supervision of a faculty advisor. Students need written approval of faculty advisor, faculty member's unit, or director of the Center for Comparative and Integrative Programs in order to enroll in this course.
Prerequisite: Senior standing in a multidisciplinary program in the center for comparative and integrative programs; and special approval.
Schedule Type: Senior Project/Honors Thesis
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 (DIVG) 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
Attributes: Diversity Global

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 (DIVG) 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
Attributes: Diversity Global

INTS 40089 INTERNATIONAL EXPERIENCE (DIVG) (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: Diversity Global, 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 (DIVG) 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
Attributes: Diversity Global

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 20011 INTRODUCTION TO THE HEBREW BIBLE OR OLD TESTAMENT 3 Credit Hours
Introduces students to the modern study of the Hebrew Bible (Old Testament) and the history and religion of ancient Israel. Designed to help students to understand the development of the Hebrew Bible in its ancient context. The course approaches the Hebrew Bible from historical, comparative, literary, anthropological and archeological perspectives in an effort to illuminate the world of its authors. No prior knowledge of the Bible, Judaism or Christianity is required.
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 30200 JEWS, BASEBALL AND AMERICAN SPORTS 3 Credit Hours
Chronicles the experience of Jewish players and performers in American sports. Course explores the issues of religious and ethnic prejudice that Jewish athletes endured, challenged and overcame.
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 (DIVG) (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: Diversity Global, 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

LGBTQ 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 61091 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: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-IP

LSTU 61098 LIBERAL STUDIES ESSAY 3 Credit Hours
(Repeatable for credit) The preparation of an essay of approximately 50 pages on a topic related to the student's program of study for the Master of Liberal Studies degree.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Research
Contact Hours: 9 other
Grade Mode: Satisfactory/Unsatisfactory-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 (DIVG) (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: Diversity Global, 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 will address 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 will also cover 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 42706 BANKRUPTCY LAW II: CREDITOR-DEBTOR RELATIONS 3 Credit Hours
Addresses issues not addressed in PLST 42705 including Chapter 9, Chapter 12, and Chapter 15 bankruptcy as well as the problems associated with gaining and collecting on a judgment. International bankruptcy issues will also be addressed.
Prerequisite: PLST 42705.
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 will learn the substantive and procedural aspects of gaining and protecting property rights. Real estate contracts, financing, zoning, and landlord-tenant issues will also be 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 contact 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 48403 PATENT PROSECUTION 3 Credit Hours
Students learn to craft patent claims in various types of patent applications that would be submitted to the U.S. Patent and Trademark Office. Students also learn the mechanics of various types of patent applications including traditional applications, provisional applications, divisional applications and continuing applications. Students also gain an understanding of the various post-grant proceedings.
Prerequisite: PLST 48401; and 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 48408 TRADEMARK PROSECUTION 3 Credit Hours
Covers the substantive and procedural aspects of trademark prosecution at the state, federal, and international levels. Special attention will be paid to the topics of drafting the trademark application and conducting searches of existing trademarks in the United States and abroad.
Prerequisite: None.
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 (DIVG) (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: Diversity Global, Experiential Learning Requirement, Kent Core Humanities, Transfer Module Humanities

REL 12020 INTRODUCTION TO NEW TESTAMENT LITERATURE 3 Credit Hours
Course introduces students to the literature of the New Testament and to the early Christian communities in which the works were formulated. Of focused interest is the critical study of the content of the texts, with close consideration of the historical and literary influences on the composition and reception of the gospel traditions as regards their presentations of the life, ministry and person of Jesus, and the letters of Paul. The post-Pauline pastoral epistles, and various later works included in the collection are briefly examined.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

REL 21021 MOSES, JESUS AND MOHAMMAD (DIVG) (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: Diversity Global, 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 31075 RELIGION AND WOMEN 3 Credit Hours
Course serves to provide students with an opportunity to examine the status of women as concerns authoritative texts, politics, doctrines and institutions through the critical study of the history, texts and artifacts of selected traditional religions with the use of multidisciplinary and cross-cultural approaches concerning the experience, contributions, topics and status of women – both historically and in contemporary contexts.
Prerequisite: None.
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 (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: 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 (DIVD) 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
Attributes: Diversity Domestic

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 41199 CAPSTONE IN WOMEN'S STUDIES (ELR) 3 Credit Hours
The capstone project is a guided undertaking that serves as culmination of students' experiences. The emphasis is 'putting it all together,' integrating the Women's Studies minor into 'the bigger picture': major(s), other concentrations, research, envisioned graduate study and/or vocation. WMST Capstone can be taken junior or senior year, contrived/structured by students in consultation with faculty advisor(s), ideally advisors from major and minor. Net outcome may be paper--senior thesis for students who desire such--presentation, curated portfolio of prior academic work.
Prerequisite: Junior Standing.
Schedule Type: Project or Capstone
Contact Hours: 3 lecture
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 (DIVD) (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: Diversity Domestic, Kent Core Social Sciences, Transfer Module Social Sciences

PACS 30000 MAY 4 1970 AND ITS AFTERMATH 3 Credit Hours
(Cross-listed with POL 30000) Study of the events of the 1960s in the US leading up to May 4, 1970 when the Ohio National Guard killed and wounded KSU students protesting the US war in Vietnam and Cambodia. Topics are considered within their cultural, historical, social and political contexts. Also examines the aftermath of May 4th, including the controversy over 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, 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
Social conflicts can be intensified and waged in a constructive manner through nonviolent action. Examines how nonviolent action methods bring about social and political change. Explores the theory and philosophy underlying strategies of nonviolent action. Utilizes a wide variety of historical and contemporary case examples of nonviolent struggles from across the globe.
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, the special challenges faced in addressing those conflicts, and the 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 in 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 (DIVG) 3 Credit Hours
Examines causes, expressions and consequences of international conflicts, exploring mechanisms of their prevention, management and resolution. Includes the appearance and development of these conflicts and early warning, negotiation, and peacekeeping and peacebuilding. Covers international and civil wars and topics such as international terrorism.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

PACS 32040 CROSS-CULTURAL CONFLICT MANAGEMENT (DIVG) 3 Credit Hours
Examines cultural components of conflicts in diverse, multi-cultural settings with special emphases on the nature and sources of cross-cultural conflicts, conflict escalation and de-escalation, and the roles of power disparities. Students examine their own cultural assumptions in order to better understand the multiple effects that cultural dynamics have in conflicts. Case analyses will include conflict resolution techniques respectful of the cultural values of the parties in conflict.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Diversity Global

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 in Peace and Conflict Studies courses can be utilized and applied in real-world settings. Students will interact with alumni and professionals working in a variety of careers that utilize conflict management and related skills. They will learn how to do professional networking, create a career plan, develop job search strategies, and learn how to market their skills and knowledge. Students will complete the course with a career plan, a 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 in conflict management and applied peace studies. Three hours of internship is required for the Applied Peace and Conflict Studies major and is an elective for the Applied Peace and Conflict Studies minor.
Prerequisite: Completion of two upper-division PACS 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 web site.
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 in area of particular interest to the student.
Prerequisite: Two upper-division PACS courses; and junior standing; and special approval.
Schedule Type: Individual Investigation
Contact Hours: 3 other
Grade Mode: Standard Letter-IP

PACS 40089 INTERNATIONAL EXPERIENCE: PEACE AND CONFLICT STUDIES (DIVG) (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: Diversity Global, 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 (DIVG) (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: Diversity Global, 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 in an engaging and interactive way negotiation theories, strategies and techniques. Students will enhance their negotiation skills by learning to plan for an effective negotiation, to elicit information effectively, to build relationships, to improve their communication and persuasive abilities and to deal with a variety of situations and circumstances. There will be several opportunities to practice negotiation skills in class, to experiment with different approaches, and to develop the skills and confidence to be able 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 in mediation skills, principles and methods in an interactive way. Students examine the historical development of mediation and the 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 in an engaging and interactive way negotiation theories, strategies and techniques. Students will enhance their negotiation skills by learning to plan for an effective negotiation, to elicit information effectively, to build relationships, to improve their communication and persuasive abilities and to deal with a variety of situations and circumstances. There will be several opportunities to practice negotiation skills in class, to experiment with different approaches, and to develop the skills and confidence to be able 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 in mediation skills, principles and methods through cooperative, participatory, interactive, skills-building pedagogies. Students examine the historical development of mediation and the 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
Conflict and negotiation are normal and unavoidable parts of life. This course goes beyond basic negation concepts like principled negotiation, focusing on topics including the psychology of negotiation, power, international relations, technology and other advanced topics. We cover issues of information asymmetry; power; ethics; and multi-party, iterative and collaborative negotiations. We use research in negotiation and research on prior case studies 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 in 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
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 inter-group, multiparty conflicts as well as deep-rooted structural conflicts. Through class discussions on readings and simulation exercises, students tackle questions such as how to work on conflicts in which there are many competing issues, goals and priorities involved; how to mediate enduring, intractable conflicts over 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
This course is designed to expand your knowledge of and practice competency in group and community level dynamics and peacebuilding techniques, giving you the skills and knowledge to turn divisive situations into strengthened and connected communities. The course begins by introducing theories of group processes, engagement and peace building. It then focuses on using case studies and experiential learning to master the skills and understand the applications of group and community peace building 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 inter-group dialogue 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 in applying these skills in partnership with a local community organization, group or neighborhood to address a community need or conflict. This class is taught in a flipped format.
Prerequisite: Graduate standing.
Corequisite: PACS 60000.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PACS 60004 ORGANIZATIONAL CONFLICT AND COOPERATION 3 Credit Hours
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. In this class, we 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.
Pre/corequisite: PACS 60000.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter

PACS 60005 PEACE, CONFLICT AND DEVELOPMENT: LOCAL-GLOBAL DYNAMICS 3 Credit Hours
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 in development practice. It examines relevant scholarly and policy debates on 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 on alternatives to development.
Prerequisite: Graduate standing.
Corequisite: PACS 60000.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PACS 60006 POST-CONFLICT PEACEBUILDING 3 Credit Hours
Over 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 class largely, though not wholly, focuses on post-conflict peacebuilding and how different actors at different levels have roles to play in achieving sustainable peace in communities, regions and within states. We examine the concepts that make up peacebuilding, the manners in which peacebuilding efforts have been implemented by actors at multiple levels and the problems associated with dominant approaches to the topic.
Prerequisite: PACS 60000; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PACS 60007 PRAXIS IN CONFLICT-SENSITIVE DEVELOPMENT 3 Credit Hours
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 in order 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 phase-out. In 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 on 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.
Pre/corequisite: PACS 60000.
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
This course provides students with an introduction to the concepts of peace psychology and how these concepts relate to wider themes in 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. In 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 in 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 the 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
Visual methods are critically important in making and understanding democratic peaceful change. This course explores three intersecting bodies of knowledge: methods and practices in 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
This course is designed to teach fundamental practices of peace building in group settings. This includes learning how to facilitate meetings; set agendas; de-escalate and facilitate group level conversations; run trainings in conflict management and build other practical, hands-on skills. All skills in 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
This class 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
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 in public policy of conflict resolution principles, 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) Over the past 30 years, many states and societies have negotiated complicated transitions from authoritarianism, widespread human rights violations and intractable civil conflict towards 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.
Pre/corequisite: PACS 60000.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PACS 60071 SOCIETY TECHNOLOGY AND SECURITY 3 Credit Hours
This course engages with current debates on the relationship between society, technology, peace and security, focusing particularly on military and dual-use technologies. The course begins by analyzing the literature on how technology shapes societies and how societies shape technology. This includes consideration of the way societies influence the emergence and application of particular technologies and the way 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 in established weapons 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 over the use of modern and emerging technologies. This includes examination of the governance implications of new developments in fields such as biotechnology, nanotechnology, cyber-warfare 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
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 environmental peacebuilding, building a solid foundation in key theories, terminology and concepts, such as the relationship between natural resources and conflict (including scarcity vs. abundance, access and governance); the redefinition of security and securitization of the environment; slow- vs. sudden-onset climate change and displacement; and environmental cooperation in 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 in 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 in 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