SCHOOL OF HEALTH SCIENCES

College of Education Health and Human Services
School of Health Sciences
100 Nixson Hall
Kent Campus
330-672-2197
www.kent.edu/ehhs/hs

Undergraduate Programs
- Athletic Training - B.S.
- Community Health Education - B.S.
- Exercise Science - B.S.
- Integrated Health Studies - B.S.
- Nutrition - B.S.
- School Health Education - B.S.E.
- Speech Pathology and Audiology - B.S.
- Sports Medicine - B.S.

Minors
- Community Health Education
- Human Sexuality
- Speech Pathology and Audiology
- Sports Medicine: Administration
- Sports Medicine: General Medical and Emergency Care
- Sports Medicine: Orthopedic Patient Care

Graduate Programs
- Athletic Training - M.S.
- Audiology - Au.D.
- Audiology - M.A.
- Audiology - Ph.D.
- Exercise Physiology - M.S.
- Exercise Physiology - Ph.D.
- Health Education and Promotion - M.Ed.
- Health Education and Promotion - Ph.D.
- Nutrition - M.S.
- Speech Language Pathology - M.A.
- Speech Language Pathology - Ph.D.

Certificates
Undergraduate Certificates
- Alcohol, Tobacco and Other Drug Prevention

Licensure/Endorsement Programs - Non-Degree
Graduate
- School Health Education (P-12) Additional Licensure Preparation

School of Health Sciences Faculty
- Arnold, Hayley S. (2010), Associate Professor, Ph.D., Vanderbilt University, 2007
- Audet, Lisa R. (1995), Assistant Professor, Ph.D., Kent State University, 2000
- Axiotis, Irene R. (1985), Professor, Ph.D., Kent State University, 1996
- Backus, Angela S. (2003), Professor, Ph.D., Kent State University, 2010
- Baker, Emily A. (2012), Lecturer, M.S., Case Western Reserve, 2001
- Barikoo, Ali (2017), Assistant Professor, Ph.D., University of Florida, 2017
- Barkley, Jacob E. (2006), Professor, Ph.D., University at Buffalo, SUNY, 2007
- Berk, Lynn V. (2008), Senior Lecturer, M.A., Cleveland State University, 2011
- Bernert, Donna J. (2007), Associate Professor, Ph.D., Southern Illinois University, 2005
- Blakely, Carmen M. (2007), Associate Professor, Ed.D., AT Still University, 2020
- Burke, Amanda J. (2000), Associate Professor, Ph.D., Kent State University, 2015
- Caine-Bish, Natalie L. (1997), Associate Professor, Ph.D., Kent State University, 2002
- Ding, Kele (2005), Associate Professor, Ph.D., Indiana University-Bloomington, 2000
- Durant, Kathleen M. (2019), Assistant Professor, Ph.D., University Of Memphis, 2017
- Evans, NaTasha (2017), Assistant Professor, Ph.D., University of Toledo, 2016
- Falcone, Tanya R. (2007), Associate Lecturer, M.S., Kent State University, 2009
- Forbes, Myrna A. (1998), Senior Lecturer, Au.D., University of Florida, 2005
- Grogan-Johnson, Susan L. (1988), Professor, Ph.D., Kent State University, 1993
- Ha, Eun-Jeong (2004), Professor, Ph.D., The Ohio State University, 1999
- Hale, Catherine C. (2000), Senior Lecturer, M.S., Indiana University, Bloomington, 1995
- Hamar, Hannah M. (2011), Assistant Professor, M.S., Kent State University, 2013
- Huston, Jeffery L. (2007), Professor, Ed.D., Capella University, 2017
- Huyck, Julia J. (2013), Associate Professor, Ph.D., Northwestern University, 2010
- Jajtner, Adam (2016), Associate Professor, Ph.D., University of Central Florida, 2016
- Kingsley, J. Derek (2013), Associate Professor, Ph.D., Florida State University, 2009
- Kolonich, Erin M. (2017), Lecturer
- Krumm, Mark P. (2005), Associate Professor, Ph.D., Wichita State University, 1990
- Malone, Megan (2012), Associate Lecturer, M.A., Case Western Reserve University, 2000
- Matthews, Jamie C. (2014), Associate Lecturer, M.S., Kent State University, 2004
• McDaniel, John (2011), Professor, Ph.D., University of Utah, 2009
• Miracle, Amy L. (2012), Assistant Professor, Ph.D., University of Nevada-Las Vegas, 2013
• Mussoi, Bruna (2017), Assistant Professor, Ph.D., University of Iowa, 2016
• O’Flannigan, Cara M. (2016), Associate Lecturer, M.A., Case Western Reserve University, 2007
• Peer, Kimberly S. (1999), Professor, Ed.D., University of Akron, 2001
• Ridgel, Angela L. (2008), Professor, Sc.D., Marshall University, 2000
• Roche, Jennifer M. (2014), Associate Professor, Ph.D., University of Memphis, 2011
• Siler, Greta Y. (2004), Associate Lecturer, M.S., Kent State University, 2007
• Visker, Jennifer N. (2016), Associate Lecturer, M.A., Case Western Reserve University, 2001
• Wagner, Laurie M. (1997), Associate Professor, Ph.D., Kent State University, 2008

Athletic Training (ATTR)

ATTR 15001 INTRODUCTION TO CLINICAL ATHLETIC TRAINING I 2 Credit Hours
An overview of the profession of athletic training; including employment opportunities, academic and clinical preparation; and introduction to basic knowledge and skills utilized in the profession. Emphasis on leadership, mentoring, ethics and research from an introductory perspective.
Prerequisite: Athletic training major.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 15002 INTRODUCTION TO SPORTS MEDICINE CAREERS 2 Credit Hours
An overview of the profession of athletic training as well as other similar sports medicine fields; including employment opportunities, academic preparation and clinical preparation. Emphasis on leadership, mentoring, ethics and research from an introductory perspective.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ATTR 15011 INTRODUCTION TO CLINICAL ATHLETIC TRAINING II 2 Credit Hours
Basic concepts and skills related to the professional domains of the athletic training profession including basic modalities and rehabilitation, research, ethics, palpations, and blood borne pathogens. Moderate to advanced Skills training in padding, splinting, wound care, equipment, bracing, tapings, wrappings, spine immobilization, and basic assessment techniques.
Prerequisite: Athletic training major.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 15012 DOCUMENTATION IN HEALTH CARE 2 Credit Hours
Addresses clinical writing skills associated with documentation in health care. Addresses the legal, ethical, and practical needs for proper documentation in health care. Focus is on reading, writing and interpreting various forms of medical documentation including but not limited to SOAP notes, progress notes, treatment notes, clinical record keeping, and facility records. Electronic medical record techniques and other clinical record methods will be addressed.
Prerequisite: Sports medicine major or sports medicine: administration minor or sports medicine: general medical and emergency care or sports medicine: orthopedic patient care minor.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ATTR 15092 PRACTICUM IN ATHLETIC TRAINING I (ELR) 3 Credit Hours
The study and clinical application of the competencies in athletic training educational domains. Specific emphasis on the introductory cognitive and psychomotor, as well as foundational behaviors of professional practice. Clinical hours and completion of specific competencies are required.
Prerequisite: ATTR 15011; and special approval.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2 lecture, 12 other
Grade Mode: Standard Letter-IP
Attributes: Experiential Learning Requirement

ATTR 20001 SOCIOCULTURAL ASPECTS OF HEALTH CARE 3 Credit Hours
Advanced examination of the sociocultural aspects of healthcare careers. Specific emphasis will be placed on the recognition of diverse patient populations and effectively addressing their unique needs. Cultural competence will be the focus of the course and will address various aspects of sociocultural diversity; including but not limited to racial, ethnic, religious, socioeconomic, regional beliefs, and alternative approaches to healthcare.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 25036 RESPONDING TO EMERGENCIES 3 Credit Hours
Principles of emergency care including prevention, management, and administrative aspects associated with injury and trauma. Practical competency in emergency care and first aid; American Red Cross Professional Rescuer Certification for CPR and AED.
Prerequisite: None.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lab, 2 other
Grade Mode: Standard Letter

ATTR 25037 PHYSICAL ASSESSMENT TECHNIQUES AND KINESIOLOGY FOR THE LOWER EXTREMITY AND SPINE 3 Credit Hours
Anatomical, clinical assessment and kinesiology related to injuries and illnesses common in athletic training and sports medicine. Emphasis on orthopedic assessment and kinesiology concepts of the Lower extremity and spine.
Prerequisite: ATTR 25036; and ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
ATTR 25038  PHYSICAL ASSESSMENT TECHNIQUES AND KINESIOLOGY FOR THE UPPER EXTREMIT Y, HEAD AND NECK  3 Credit Hours
Anatomical, clinical assessment and kinesiology related to injuries and illnesses common in athletic training and sports medicine. Emphasis on orthopedic assessment and kinesiology concepts of the Upper Extremity, Health and neck.
Prerequisite: ATTR 25036 and ATTR 25037; and ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 25057  HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)  4 Credit Hours
(Cross-listed with EXSC 25057) Comprehensive examination of anatomy and physiology related to the organization of the body and basic cell and tissue types. Specific structure and function of the muscular, skeletal, integumentary and nervous systems are addressed.
Prerequisite: None.
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

ATTR 25058  HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)  4 Credit Hours
(Cross-listed with EXSC 25058) Comprehensive examination of anatomy and physiology related to the human body under rest and exercise conditions. Specific structure and function of the metabolic, endocrine, lymphatic, digestive, urinary and reproductive systems are addressed. Advanced coverage of neurological, cardiovascular and respiratory systems are also addressed.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
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

ATTR 25092  PRACTICUM IN ATHLETIC TRAINING II (ELR)  3 Credit Hours
The study and clinical application of the competencies in athletic training educational domains. Specific emphasis on the intermediate cognitive and psychomotor components. Clinical hours and completion of specific competencies are required.
Prerequisite: ATTR 15092.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2 lecture, 15 other
Grade Mode: Standard Letter-IP
Attributes: Experiential Learning Requirement

ATTR 35025  ESSENTIALS OF ATHLETIC INJURY MANAGEMENT  1 Credit Hour
Common injuries related to physical activity and/or athletic participation from the cause, management and care perspectives. American Red Cross sport safety training certification (including adult/child CPR) will be granted. Emphasis on application of skills.
Prerequisite: None.
Schedule Type: Laboratory
Contact Hours: 1 lab
Grade Mode: Standard Letter

ATTR 35037  ADVANCED PHYSICAL ASSESSMENT TECHNIQUES  3 Credit Hours
Anatomical, medical and clinical assessment techniques for injuries and illnesses common to the physically active. Emphasis on neurological and non-orthopedic assessment strategies for proper referral and care.
Prerequisite: ATTR 25037; and ATTR 25058 or BSCI 11020 or BSCI 21020 or EXSC 25058.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 35039  THERAPEUTIC MODALITIES  3 Credit Hours
The study and practical application of physical modalities including physical principles, physiologic effects, indications/contraindications and standard application procedures. Safety and legal issues of modality usage are also addressed.
Prerequisite: ATTR 25036.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

ATTR 35040  STRENGTH AND CONDITIONING  2 Credit Hours
Demonstrate didactic understanding and clinical application of energy systems, anatomy and proper techniques for strength and conditioning exercises for practical applications with athletes.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and athletic training or exercise science, or physical education and sport performance or sports medicine majors or sports medicine: administration or sports medicine: general medical and emergency care or sports medicine: orthopedic patient care minor.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 35045  EMERGENCY MEDICAL TECHNICIAN-BASIC  5 Credit Hours
Preparing for Emergency Medical Technician certification including patient assessment, airway and cardiac management, trauma management, medical patient management and clinical experience. Prepares students to challenge the National Registry Examination for the State of Ohio for EMT-Basic. Clinical hours are required for this course through Hudson EMS.
Prerequisite: Special approval.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 6 lab
Grade Mode: Standard Letter

ATTR 35050  NEUROLOGICAL PROCESS FOR THE HEALTHCARE PROFESSIONAL  3 Credit Hours
Advanced cognitive content in the areas of normal and pathological function of the nervous system and its components. Specific emphasis on the neurophysiological basis for motor learning, special senses, and memory serves to address the central and peripheral nervous system structure and function. Growth and Development and pathological responses to hypoxia, microbiologic agents, genetic derangements, nutritional deficiencies, chemicals, drugs and aging are addressed.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21020; and ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
ATTR 35054 BIOMECHANICS  3 Credit Hours
(Cross-listed with EXSC 35054) Anatomical and mechanical bases of human movement. Emphasis is placed on tools and techniques for motion analysis, mechanical concepts, forces and performance analysis. Lecture and laboratory.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 35062 EVIDENCE-BASED RESEARCH IN HEALTH CARE  3 Credit Hours
An examination of evidence-based practice and evidence-based research in health care. The focus of the course will include understanding literature, research questions, methods of research, and how evidence-based research and evidence-based practice play a vital role in the delivery or modern day healthcare. Emphasis will be placed upon the process of evidence-based research, utilizing the outcomes of evidence-based research and the utilization of outcomes assessment in healthcare.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 35092 PRACTICUM IN ATHLETIC TRAINING III (ELR)  3 Credit Hours
The study and clinical application of the competencies in athletic training educational domains. Specific emphasis on the intermediate and advanced cognitive and psychomotor components. Clinical hours and completion of specific competencies are required.
Prerequisite: ATTR 25092.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2 lecture, 15 other
Grade Mode: Standard Letter-IP
Attributes: Experiential Learning Requirement

ATTR 43018 ETHICAL LEADERSHIP FOR HEALTH CARE (WIC)  3 Credit Hours
(Slashed with ATTR 53018) Examination of specific situations in healthcare from an ethical sensitivity, reasoning and decision making perspective. A problem-oriented case study approach based on contemporary moral issues and moral theory related to clinical and academic health professions. An examination and assessment of leadership styles and methods as they pertain to healthcare and healthcare administration.
Prerequisite: Senior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

ATTR 45017 PROFESSIONAL DEVELOPMENT IN ATHLETIC TRAINING  3 Credit Hours
An investigation of the issues affecting the student athlete trainer as they prepare for an entry-level career in athletic training. Professional development issues and NATABOC exam preparation are included.
Prerequisite: Athletic Training majors only; and senior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 45019 PROFESSIONAL RESPONSIBILITY AND MANAGEMENT IN HEALTH CARE  3 Credit Hours
An investigation of the issues affecting the entry level healthcare providers. Professional development issues and career advancement are included. Investigation into current philosophies and legal aspects of healthcare management. Organization and administrative concepts and models will focus on the advancement of patient based healthcare.
Prerequisite: Senior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 45038 ORGANIZATION AND ADMINISTRATION OF ATHLETIC TRAINING  3 Credit Hours
(Cross-listed with ATTR 55038) Investigation into current philosophies and legal aspects of athletic training. Organization and administration of all aspects of athletic training programs.
Prerequisite: ATTR 25036.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 45039 THERAPEUTIC REHABILITATION  3 Credit Hours
(Cross-listed with ATTR 55039) The study and clinical application of rehabilitation techniques including strategies for proper exercise selection based on anatomical and physiological considerations, program administration and guidelines for program progression.
Prerequisite: ATTR 25036; and ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 1 lab
Grade Mode: Standard Letter

ATTR 45040 PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS  3 Credit Hours
(Cross-listed with ATTR 55040) Investigation of specific pathological conditions presented by professionals, including physicians and pharmacists. Will discuss common pathologies, associated pharmacological treatment and physiologic effects for various afflictions.
Prerequisite: ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 45041 ADVANCED THERAPEUTIC INTERVENTIONS  3 Credit Hours
Addresses the physiological considerations of specific injuries and conditions commonly encountered in the athletic training profession. Focus is on contemporary rehabilitative programming for all of the major body regions. Specific units on Aquatic therapy and rehabilitation, Neurological considerations for rehabilitation, Return to Running Considerations, and Return to Throwing protocols are included.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020; and ATTR 35054 and ATTR 45039.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 1 lab
Grade Mode: Standard Letter
ATTR 45091  SENIOR SEMINAR IN ATHLETIC TRAINING  1 Credit Hour
(Repeatable for credit) Contemporary issues related to preparing students for entry-level careers in the athletic training profession including development of the foundational behaviors of professional practice. Specific emphasis on employment preparation or graduate school preparation.
Prerequisite: Athletic Training major; and senior standing.
Schedule Type: Seminar
Contact Hours: 1 lecture
Grade Mode: Standard Letter

ATTR 45096  INDIVIDUAL INVESTIGATION IN ATHLETIC TRAINING  1-3 Credit Hours
(Repeatable for a maximum of 6 credit hours) Independent study completed under the supervision of a faculty member. Written approval of supervising faculty member and school director required prior to registration.
Prerequisite: Special approval.
Schedule Type: Individual Investigation
Contact Hours: 3-9 other
Grade Mode: Standard Letter-IP
Attributes: Experiential Learning Requirement

ATTR 45192  PRACTICUM IN ATHLETIC TRAINING IV (ELR)  3 Credit Hours
The study and clinical application of competencies in athletic training educational domains. Specific emphasis on the advanced cognitive and psychomotor components. Clinical hours and completion of specific competencies are required.
Prerequisite: ATTR 35092.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2 lecture, 15 other
Grade Mode: Standard Letter-IP
Attributes: Experiential Learning Requirement

ATTR 45292  INTERNSHIP IN ATHLETIC TRAINING I (ELR)  3 Credit Hours
Internship in approved athletic training setting under the direct supervision of a certified athletic trainer. Students complete 20 hours per week in a clinical experience.
Prerequisite: ATTR 45192; and special approval.
Schedule Type: Lecture, Practical Experience
Contact Hours: 1 lecture, 20 other
Grade Mode: Standard Letter-IP
Attributes: Experiential Learning Requirement

ATTR 45392  INTERNSHIP IN ATHLETIC TRAINING II (ELR)  3 Credit Hours
Internship in an approved athletic training setting under the supervision of a certified and licensed athletic trainer. Students are required to perform 20 hours per week in clinical experience.
Prerequisite: ATTR 45292; and special approval.
Schedule Type: Lecture, Practical Experience
Contact Hours: 1 lecture, 20 other
Grade Mode: Standard Letter-IP
Attributes: Experiential Learning Requirement

ATTR 45492  INTER-PROFESSIONAL INTERNSHIP IN SPORTS MEDICINE (ELR)  3 Credit Hours
(Repeatable for credit) Inter-professional internship experience in a sports medicine discipline. An internship experience in a sports medicine facility focusing on inter-professional dynamics and aspects of the discipline. A comprehensive clinical experience will be supported by engagement in the inter-professional environment through projects and professional development experiences. Integration of professionalism, professional development, and transition to practice in a sports medicine discipline drives this internship.
Prerequisite: Sports medicine major; and senior standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 9 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

ATTR 45095  SPECIAL TOPICS IN ATHLETIC TRAINING  1-3 Credit Hours
(Repeatable for credit) Selected topics in athletic training dependent upon interest.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

ATTR 53018  ETHICAL LEADERSHIP FOR HEALTH CARE  3 Credit Hours
(Slashed with ATTR 43018) Examination of specific situations in healthcare from an ethical sensitivity, reasoning and decision making perspective. A problem-oriented case study approach based on contemporary moral issues and moral theory related to clinical and academic health professions. An examination and assessment of leadership styles and methods as they pertain to health care and health care administration.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 55038  ORGANIZATION AND ADMINISTRATION OF ATHLETIC TRAINING  3 Credit Hours
(Cross-listed with ATTR 45038) Investigation into current philosophies and legal aspects of athletic training. Organization and administration of all aspects of athletic training programs.
Prerequisite: ATTR 25036; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 55039  THERAPEUTIC REHABILITATION  3 Credit Hours
(Slashed with ATTR 45039) The study and clinical application of rehabilitation techniques including strategies for proper exercise selection based on anatomical and physiological considerations, program administration and guidelines for program progression.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
**ATTR 55040 PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS** 3 Credit Hours  
Investigation of specific pathological conditions presented by professionals, including physicians and pharmacists. Will discuss common pathologies, associated pharmacological treatments and physiologic effects for various afflictions.  
**Prerequisite:** ATTR 25058 or EXSC 25058.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter  

**ATTR 60000 CADAVER ANATOMY AND APPLIED ASSESSMENT** 6 Credit Hours  
Cadaver dissection with emphasis on the systems of the body to understand structure and function of the anatomical structures. Applied assessment components integrate functional assessment and diagnostic signs and symptoms of common athletic training conditions and injuries. Evidence-based assessment will be infused throughout the course.  
**Prerequisite:** Athletic Training major within the Master of Science degree; and graduate standing.  
**Schedule Type:** Laboratory, Lecture, Combined Lecture and Lab  
**Contact Hours:** 3 lecture, 6 lab  
**Grade Mode:** Standard Letter  

**ATTR 61000 ACUTE INJURY DIAGNOSIS, TREATMENT AND MANAGEMENT** 3 Credit Hours  
Mechanisms of acute injuries will provide the foundation for the integration of evidence-based knowledge in the diagnosis, treatment and management of athletic training injuries. Contemporary clinical guidelines and management strategies will provide a framework for critical thinking and practical application.  
**Prerequisite:** Graduate standing.  
**Schedule Type:** Laboratory, Lecture, Combined Lecture and Lab  
**Contact Hours:** 2 lecture, 2 lab  
**Grade Mode:** Standard Letter  

**ATTR 62010 CONTEMPORARY ISSUES IN ATHLETIC TRAINING** 3 Credit Hours  
A comprehensive examination of contemporary issues, trends and problems affecting athletic training professionals related to the domains of practice for athletic trainers.  
**Prerequisite:** Graduate standing.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter  

**ATTR 62012 EDUCATION AND SUPERVISION PROCESSES IN ATHLETIC TRAINING** 3 Credit Hours  
A comprehensive examination of educational learning theories, curriculum design, evaluation and supervision strategies in athletic training education programs from didactic and clinical perspectives. Additional applications for continuing education programs will be included.  
**Prerequisite:** Graduate standing.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter  

**ATTR 62014 ADVANCED CLINICAL PROCEDURES IN ATHLETIC TRAINING AND SPORTS MEDICINE** 3 Credit Hours  
Advanced clinical practice theory and skills as they relate to the profession of athletic training and sports medicine. Emphasis on contemporary clinical practice issues for a variety of athletic training and sports medicine professional settings.  
**Prerequisite:** Graduate standing.  
**Schedule Type:** Laboratory, Lecture, Combined Lecture and Lab  
**Contact Hours:** 2 lecture, 2 lab  
**Grade Mode:** Standard Letter  

**ATTR 62016 CLINICAL INQUIRY IN ATHLETIC TRAINING** 3 Credit Hours  
Principles of athletic training research methodologies with a focus on clinical athletic training research. Completion of a clinical research project will be required in this course.  
**Prerequisite:** Graduate standing.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter  

**ATTR 63091 RESEARCH SEMINAR** 1 Credit Hour  
(Slashed with ATTR 73091) Presentation and discussion of research by faculty and students. A total of 2 credits may be applied toward degree requirements.  
**Prerequisite:** Graduate standing.  
**Schedule Type:** Seminar  
**Contact Hours:** 1 other  
**Grade Mode:** Satisfactory/Unsatisfactory  

**ATTR 63094 COLLEGE TEACHING IN HEALTH SCIENCES** 3 Credit Hours  
(Repeatable for a maximum of 6 credit hours) Guided teaching experiences in the Health Sciences. Specific emphasis on establishing and implementing a teaching philosophy in an instructional setting in the Health Sciences. Development of Professional Teaching Behaviors will be addressed. A comprehensive teaching experience rooted in contemporary teaching literature will guide this course.  
**Prerequisite:** Graduate standing; and special approval.  
**Schedule Type:** Lecture, Seminar  
**Contact Hours:** 1 lecture, 2 other  
**Grade Mode:** Standard Letter  

**ATTR 63096 INDIVIDUAL INVESTIGATION IN ATHLETIC TRAINING** 1-3 Credit Hours  
(Repeatable for a maximum of 6 credit hours) Independent study completed under the supervision of a faculty member. Written approval of supervising faculty member and School director required prior to registration.  
**Prerequisite:** Graduate standing; and special approval.  
**Schedule Type:** Individual Investigation  
**Contact Hours:** 3-9 other  
**Grade Mode:** Standard Letter-IP  

**ATTR 63098 RESEARCH** 1-15 Credit Hours  
(Repeatable for credit) Research carried out by the student under the supervision of a faculty member.  
**Prerequisite:** Graduate standing.  
**Schedule Type:** Research  
**Contact Hours:** 1-15 other  
**Grade Mode:** Standard Letter-IP
ATTR 63193 VARIABLE TITLE WORKSHOP IN ATHLETIC TRAINING  1-3 Credit Hours
(Repeatable for credit) Workshop in athletic training; topics vary. Maximum 4 hours applied to the degree.
Prerequisite: Graduate standing.
Schedule Type: Workshop
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory

ATTR 63195 SPECIAL TOPICS IN ATHLETIC TRAINING  1-3 Credit Hours
(Repeatable for a maximum of 6 credit hours) Selected and varied topics of relevance in athletic training.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Satisfactory/Unsatisfactory-IP

ATTR 63199 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 semester distributed over several semesters if desired.
Prerequisite: Graduate standing.
Schedule Type: Masters Thesis
Contact Hours: 2-6 other
Grade Mode: Satisfactory/Unsatisfactory-IP

ATTR 63299 THESIS II  2 Credit Hours
Thesis students must continue registration each semester until all degree requirements are met.
Prerequisite: ATTR 63199; and graduate standing.
Schedule Type: Masters Thesis
Contact Hours: 2 other
Grade Mode: Satisfactory/Unsatisfactory-IP

ATTR 65001 CLINICAL PRACTICE I: PREVENTION AND WELLNESS  3 Credit Hours
Clinical practicum in an athletic training setting under the direct supervision of a certified, licensed health care provider. Emphasis on the development of clinical competencies related to prevention of injuries and medical conditions and overall wellness will be the primary focus. Engagement in an inter-professional environment with specific competencies for research and ethical case analysis are required. Students must complete a minimum of 180 hours in clinicals.
Prerequisite: Athletic Training major within the Master of Science degree; and graduate standing.
Schedule Type: Clinical Laboratory
Contact Hours: 12 other
Grade Mode: Standard Letter

ATTR 65002 CLINICAL PRACTICE II: ADVANCED HEAD, NECK AND ORTHOPEDIC  3 Credit Hours
Clinical practicum in an athletic training setting under the direct supervision of a certified, licensed health care provider. Emphasis on the development of clinical competencies related to Head, Neck, and Orthopedic conditions and overall wellness will be the primary focus. Engagement in an inter-professional environment with specific competencies for research and ethical case analysis are required. Student must complete a minimum of 180 hours in clinicals.
Prerequisite: Athletic Training major within the Master of Science degree; and graduate standing.
Schedule Type: Clinical Laboratory
Contact Hours: 12 other
Grade Mode: Standard Letter

ATTR 65003 CLINICAL PRACTICE III: GENERAL MEDICAL  3 Credit Hours
Clinical practicum in an athletic training setting under the direct supervision of a certified, licensed health care provider. Emphasis on the development of clinical competencies related to general medical conditions will be the primary focus. Engagement in an inter-professional environment including rotations with physicians and/or nurse practitioners with specific competencies for research and ethical case analysis are required. Student must complete a minimum of 180 hour in clinicals.
Prerequisite: Athletic Training major within the Master of Science degree; and graduate standing.
Schedule Type: Clinical Laboratory
Contact Hours: 12 other
Grade Mode: Standard Letter

ATTR 65004 BIOMECHANICS  3 Credit Hours
(Cross-listed with EXPH 75004) Survey of biomechanics, with particular emphasis on skeletal muscle mechanics.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 65005 CLINICAL PRACTICE IV: ADVANCED COMPETENCIES  3 Credit Hours
Clinical practicum in an athletic training setting under the direct supervision of a certified, licensed health care provider. Emphasis on the development of clinical competencies related to advanced competencies and skills in athletic training will be the primary focus. Engagement in an inter-professional environment with specific competencies for research and ethical case analysis are required. Student must complete a minimum of 180 hours in clinicals.
Prerequisite: Athletic Training major within the Master of Science degree; and graduate standing.
Schedule Type: Clinical Laboratory
Contact Hours: 12 other
Grade Mode: Standard Letter

ATTR 65037 PHYSICAL AGENTS IN ATHLETIC TRAINING AND SPORTS MEDICINE  3 Credit Hours
The study and practical application of physical modalities including physical principles, physiologic effects, indications-contradictions, and standard application procedures. Safety and legal issues of modality usage are also addressed.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 65038 ADMINISTRATION CONCEPTS FOR THE HEALTHCARE PROFESSIONAL  3 Credit Hours
Investigation into current philosophies and legal aspects of athletic training and sports medicine programs. Organization and administration of all aspects of athletic training and sports medicine programs with specific emphasis on policy and regulation of programs anchored in contemporary healthcare practices.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
ATTR 65039  PHYSICAL REHABILITATION IN ATHLETIC TRAINING AND SPORTS MEDICINE  
3 Credit Hours
The study and clinical application of evidence based rehabilitation techniques including strategies for proper exercise selection based on anatomical and physiological considerations, program administration, and guidelines for program progression. This course will address the comprehensive concepts related to the rehabilitation of including but not limited to modality selection, pharmacological considerations, record keeping, program design and implementation, and safety aspects. The psychology of rehabilitation including goal setting and motivation will also be addressed. Current literature and techniques in the field will support the content of this course.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 65040  PATHOPHARMACOLOGY FOR HEALTHCARE PROVIDERS  
3 Credit Hours
Advanced investigation of specific pathological conditions presented by professionals, including physicians and pharmacists. Will discuss common pathologies, associated pharmacological treatment and physiologic effects for various afflictions anchored in evidence-based practice in health care.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 65050  NEUROLOGICAL CONCEPTS FOR THE HEALTHCARE PROFESSIONAL  
3 Credit Hours
Advanced cognitive content in normal and pathological function of the nervous system and its components. Specific emphasis on the neurophysiological basis for motor learning, special senses, and memory serves to address the central and peripheral nervous system structure and function. Growth and Development and pathological responses to hypoxia, microbiologic agents, genetic derangements, nutritional deficiencies, chemicals, drugs and aging are addressed. Evidence-based practice concepts will guide the integration from anatomy and physiology to effective interventions for selected neurological conditions.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 69999  CLINICAL CAPSTONE IN ATHLETIC TRAINING  
6 Credit Hours
Clinical Capstone is an intensive, immersion experience in the clinical setting under the direct supervision of a certified, licensed health care professional. Students will invest a minimum of 360 in the clinical setting working with inter-professional health care providers. Clinical capstone expectations include performance evaluations by supervisors and patient management to promote active clinical engagement and critical thinking. A portfolio will include professional skill assessments, performance assessment, case studies, mock interview, and formal evidence-based presentation to health care providers on an athletic training domain.
Prerequisite: Athletic Training major within the Master of Science degree; and graduate standing.
Schedule Type: Clinical Laboratory
Contact Hours: 24 other
Grade Mode: Standard Letter

ATTR 73091  RESEARCH SEMINAR  
1 Credit Hour
(Slashed with ATTR 63091) Presentation and discussion of research by faculty and students. A total of 2 credits may be applied toward degree requirements.
Prerequisite: Doctoral standing.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory

ATTR 73094  COLLEGE TEACHING IN HEALTH SCIENCES  
3 Credit Hours
Guided teaching experiences in health sciences. Specific emphasis on establishing and implementing a teaching philosophy in an instructional setting in the health sciences. Development of Professional Teaching Behaviors will be addressed. A comprehensive teaching experience rooting in contemporary literature will guide this course.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Lecture, Seminar
Contact Hours: 1 lecture, 2 other
Grade Mode: Standard Letter

ATTR 75001  EVIDENCE BASED INTERVENTIONS IN ATHLETIC TRAINING  
3 Credit Hours
This course will examine the use of Evidence Based Interventions (EBI) in Athletic Training Education. This course will examine the implementation of EBI constructs across the curriculum and program. Specific emphasis on designing and implementing EBI into didactic and clinical experiences in Athletic Training. Implementation of EBI into the development, implementation and dissemination of research will also be addressed. Through an extensive examination of the critical literature, students will gain an understanding of how to broadly integrate EBI constructs in their professional practice.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 75002  ACADEMIC AND ADMINISTRATIVE LEADERSHIP IN ATHLETIC TRAINING  
3 Credit Hours
This course will address the key academic leadership constructs needed to navigate the higher education culture as a faculty and/or clinical faculty member. Human resources, politics, administrative processes and organizational factors related to successful higher education and clinical leadership will be the focus. Leadership and advocacy strategies for professional organizations will also be developed.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 75003  CONTINUOUS QUALITY IMPROVEMENT AND ASSESSMENT IN ATHLETIC TRAINING  
3 Credit Hours
The focus of the course includes the fundamental constructs associated with quality improvement through an academic program in athletic training. The development of inter-professional practice, engaging curriculum, creation of educational and administrative policy, and leading change within Athletic Training organizations. The course will assist students in developing action plans for their organization pertaining to organizational improvement.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
ATTR 75004  TEACHING AND CLINICAL EDUCATION LEADERSHIP IN ATHLETIC TRAINING  3 Credit Hours
This course focuses on the comprehensive and integrated elements in athletic training education. An in-depth analysis of curriculum design and implementation, didactic and clinical education, program assessments, and accreditation policies and standards will be addressed. A framework rooted in the context of inter-professional education promote organizational and programmatic improvements related dynamic trends in HC education.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

Exercise Physiology (EXPH)

EXPH 50612  EXERCISE LEADERSHIP FOR THE OLDER ADULT  3 Credit Hours
(Cross-listed with EXSC 40612) Designed to provide the students with a knowledge base in exercise leadership in the senior population and includes special populations. Students participate in the leading supervision and evaluation of the participant within the exercise program. They also assist in the collection of functional fitness data.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 51000  EXERCISE IMPLEMENTATION: AN EXERCISE INTERVENTION PROGRAM  1-3 Credit Hours
(Repeatable for credit) Students will participate in leading, supervising and developing plans for individuals who want to reduce cardiovascular risk factors through structured exercise.
Prerequisite: EXPH 55080; and graduate standing.
Schedule Type: Laboratory
Contact Hours: 3-9 lab
Grade Mode: Standard Letter

EXPH 53093  VARIABLE TITLE WORKSHOP IN EXERCISE SCIENCE AND EXERCISE PHYSIOLOGY  1-3 Credit Hours
(Repeatable for credit) (Cross-listed with EXSC 43093) Workshop in exercise science or physiology, topics vary.
Prerequisite: Graduate standing.
Schedule Type: Workshop
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory

EXPH 55040  ADVANCED STRENGTH AND CONDITIONING  3 Credit Hours
(Slashed with EXSC 45040) Advanced principles in strength and conditioning. Learn and understand the energy systems, anatomy, physiology and proper lifting technique of strength, speed, agility and conditioning exercises for practical application with athletes.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXPH 55065  EXERCISE TESTING  3 Credit Hours
(Cross-listed with EXSC 45065) Lecture and laboratory experiences dealing with the administration and interpretation of exercise tests.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 55070  ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST  3 Credit Hours
(Cross-listed with EXSC 45070) Designed to provide students with the knowledge base in electrocardiography. Students work on interpreting the 12-lead electrocardiogram with clinical case studies to enhance the knowledge base of the exercise specialist.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXPH 55080  PHYSIOLOGY OF EXERCISE  3 Credit Hours
(Repeatable for credit) (Slashed with EXSC 45080) Physiological bases of muscular activity with special attention to general effects of exercise on body function. Laboratory included.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 55085  PHYSIOLOGY OF AGING: IMPLICATIONS FOR HUMAN BEHAVIOR  3 Credit Hours
(Cross-listed with EXPH 70610) Examine physiological changes which accompany advancing age. Special attention is paid to the effect of these changes on sensory motor and cognitive behavior.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXPH 55090  QUANTITATIVE AND RESEARCH METHODS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY  3 Credit Hours
(Repeatable for credit) (Slashed with EXPH 73050) The research process and statistical concepts applied to athletic training and exercise physiology.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 56020  RESEARCH METHODS IN EXERCISE SCIENCE  3 Credit Hours
(Repeatable for credit) (Slashed with EXSC 43020) Research design and statistical methods applied to exercise physiology. Laboratory included.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXPH 56025  QUANTITATIVE AND RESEARCH METHODS IN ATHELETIC TRAINING AND EXERCISE PHYSIOLOGY  3 Credit Hours
(Repeatable for credit) (Slashed with EXPH 73051) Research design and statistical methods applied to exercise, physiology and athletic training.
Prerequisite: EXPH 63050; and graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 60610  PHYSIOLOGY OF AGING: IMPLICATIONS FOR HUMAN BEHAVIOR  3 Credit Hours
(Cross-listed with EXPH 70610) Examine physiological changes which accompany advancing age. Special attention is paid to the effect of these changes on sensory motor and cognitive behavior.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXPH 63050  RESEARCH PROCESS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY  3 Credit Hours
(Cross-listed with EXPH 73050) The research process and statistical concepts applied to athletic training and exercise physiology.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 63051  QUANTITATIVE AND RESEARCH METHODS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY  3 Credit Hours
(Repeatable for credit) (Slashed with EXPH 73051) Research design and statistical methods applied to exercise, physiology and athletic training.
Prerequisite: EXPH 63050; and graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 63060  EXPERTISE AND RESEARCH METHODS IN EXERCISE SCIENCE  3 Credit Hours
(Repeatable for credit) (Slashed with EXPH 73060) Research design and statistical methods applied to exercise physiology. Laboratory included.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXPH 63065  QUANTITATIVE AND RESEARCH METHODS IN ATHELETIC TRAINING AND EXERCISE PHYSIOLOGY  3 Credit Hours
(Repeatable for credit) (Slashed with EXPH 73065) Research design and statistical methods applied to exercise, physiology and athletic training.
Prerequisite: EXPH 63050; and graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 63070  RESEARCH SEMINAR  1 Credit Hour
(Repeatable for credit) (Slashed with EXPH 73070) Presentation, discussion and discussion of research by faculty and students. A total of 2 credits may be applied toward degree requirements.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory
EXPH 63096  INDIVIDUAL INVESTIGATION IN EXERCISE PHYSIOLOGY  
3-6 Credit Hours  
(Repeatable for a maximum of 6 credit hours) (Slashed with EXPH 73096) Independent study completed under the supervision of a faculty member. Written approval of supervising faculty member and School Director required prior to registration.  
Prerequisite: Graduate standing; and special approval.  
Schedule Type: Individual Investigation  
Contact Hours: 3-6 other  
Grade Mode: Standard Letter-IP  
EXPH 63098  RESEARCH  
1-15 Credit Hours  
(Repeatable for credit) Research carried out by the student under the supervision of a faculty member.  
Prerequisite: Graduate standing.  
Schedule Type: Research  
Contact Hours: 1-15 other  
Grade Mode: Standard Letter-IP  
EXPH 63193  VARIABLE TITLE WORKSHOP IN EXERCISE PHYSIOLOGY  
1-3 Credit Hours  
(Repeatable for credit) Workshop in exercise physiology; topics vary. Maximum 4 hours applied to the degree.  
Prerequisite: Graduate standing.  
Schedule Type: Workshop  
Contact Hours: 1-3 other  
Grade Mode: Satisfactory/Unsatisfactory  
EXPH 63195  SPECIAL TOPICS IN EXERCISE PHYSIOLOGY  
1-3 Credit Hours  
(Repeatable for credit) (Slashed with EXPH 73195) Selected and varied topics of relevance in exercise physiology.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 1-3 lecture  
Grade Mode: Standard Letter  
EXPH 63199  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 semester distributed over several semesters if desired.  
Prerequisite: Graduate standing.  
Schedule Type: Masters Thesis  
Contact Hours: 3 other  
Grade Mode: Satisfactory/Unsatisfactory-IP  
EXPH 63299  THESIS II  
2 Credit Hours  
Thesis students must continue registration each semester until all degree requirements are met.  
Prerequisite: EXPH 63199; and graduate standing.  
Schedule Type: Masters Thesis  
Contact Hours: 2 other  
Grade Mode: Satisfactory/Unsatisfactory-IP  
EXPH 65075  MUSCLE FUNCTION AND EXERCISE  
3 Credit Hours  
(Slashed with EXPH 75075) Characteristics of skeletal muscle related to contraction during exercise, strength, elasticity, fatigue, and training. Electromyograph analysis of muscle function emphasized.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
EXPH 65076  ENVIRONMENTAL STRESS AND EXERCISE  
3 Credit Hours  
(Slashed with EXPH 75076) Effects of heat, cold, pressure, pollution and psychological stress upon physiological responses to exercise. Lecture and laboratory.  
Prerequisite: Graduate standing.  
Schedule Type: Combined Lecture and Lab  
Contact Hours: 2 lecture, 2 lab  
Grade Mode: Standard Letter  
EXPH 65080  PHYSIOLOGICAL BASIS OF EXERCISE AND SPORT  
3 Credit Hours  
(Slashed with EXPH 75080) Application of physiological concepts to human performance. Includes role of testing, training strength and endurance, nutritional considerations, environmental influences and, adapted exercise programs.  
Prerequisite: Graduate standing.  
Schedule Type: Combined Lecture and Lab  
Contact Hours: 2 lecture, 2 lab  
Grade Mode: Standard Letter  
EXPH 65081  ENERGY METABOLISM AND BODY COMPOSITION  
3 Credit Hours  
(Slashed with EXPH 75081) Measurement of metabolic response to exercise. Topics include ergometry spirometry energy expenditure body composition and performance correlates of strength power and endurance.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
EXPH 65082  CARDIO-RESPIRATORY FUNCTION  
3 Credit Hours  
(Slashed with EXPH 75082) Measurement of the cardiovascular-respiratory response to exercise. Includes resting spirometry, lung function during exercise, electrocardiography, blood pressure, PWC testing and exercise prescription.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
EXPH 65083  EXERCISE ENERGY METABOLISM  
3 Credit Hours  
(Slashed with EXPH 75083) Energy transformations during exercise. Emphasis on controlling mechanisms that regulate the anabolic and catabolic responses to both acute and chronic exercise.  
Prerequisite: Graduate standing.  
Schedule Type: Combined Lecture and Lab  
Contact Hours: 2 lecture, 2 lab  
Grade Mode: Standard Letter  
EXPH 65084  CARDIOVASCULAR-RESPIRATORY DYNAMICS DURING EXERCISE  
3 Credit Hours  
(Slashed with EXPH 75084) Responses of the cardiovascular and respiratory systems to exercise. Use of noninvasive methods to measure cardio-respiratory function emphasized. Lecture and laboratory.  
Prerequisite: Graduate standing.  
Schedule Type: Combined Lecture and Lab  
Contact Hours: 2 lecture, 2 lab  
Grade Mode: Standard Letter
EXPH 65086 NEUROBIOLOGY OF MOVEMENT AND EXERCISE 3 Credit Hours
(Slashed with EXPH 75086) Provide students with knowledge to understand the role of the muscular and nervous systems in human movement and exercise. Motor disorders and rehabilitation techniques will also be discussed. Lecture and laboratory.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
EXPH 65192 INTERNSHIP IN EXERCISE PHYSIOLOGY 1-9 Credit Hours
(Repeatable for a maximum of 9 credit hours) Field experience in exercise physiology programs and testing in Kent State University adult fitness program or cooperating agencies.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 3-27 other
Grade Mode: Satisfactory/Unsatisfactory
EXPH 70610 PHYSIOLOGY OF AGING: IMPLICATIONS FOR HUMAN BEHAVIOR 3 Credit Hours
(Slashed with EXPH 60610) Examine physiological changes which accompany advancing age. Special attention is paid to the effect of these changes on sensory motor and cognitive behavior.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
EXPH 73050 RESEARCH PROCESSES IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY 3 Credit Hours
(Slashed with EXPH 63050) The research process and statistical concepts applied to athletic training and exercise physiology.
Prerequisite: Doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
EXPH 73051 QUANTITATIVE AND RESEARCH METHODS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY 3 Credit Hours
(Slashed with EXPH 63051) Research design and statistical methods applied to exercise physiology and athletic training.
Prerequisite: EXPH 73050; and doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
EXPH 73091 RESEARCH SEMINAR 1 Credit Hour
(Repeatable for credit) Presentation and discussion of research by faculty and students. A total of 2 credits may be applied toward degree requirements.
Prerequisite: Doctoral standing.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory
EXPH 73096 INDIVIDUAL INVESTIGATION IN EXERCISE PHYSIOLOGY 1-3 Credit Hours
(Repeatable for a maximum of 6 credit hours) (Slashed with EXPH 63096) Independent student completed under the supervision of a faculty member. Written approval of supervising faculty member and School Director required prior to registration.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Individual Investigation
Contact Hours: 1-3 other
Grade Mode: Standard Letter
EXPH 73195 SPECIAL TOPICS IN EXERCISE PHYSIOLOGY 1-3 Credit Hours
(Repeatable for a maximum of 6 credit hours) (Slashed with EXPH 63195) Selected and varied topics of relevance in exercise physiology.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter
EXPH 75004 BIOMECHANICS 3 Credit Hours
(Cross-listed with ATTR 65004) Survey of biomechanics, with particular emphasis on skeletal muscle mechanics.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
EXPH 75075 MUSCLE FUNCTION AND EXERCISE 3 Credit Hours
(Slashed with EXPH 65075) Characteristics of skeletal muscle related to contraction during exercise, strength, elasticity, fatigue and training. Electromyograph analysis of muscle function emphasized.
Prerequisite: Doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
EXPH 75076 ENVIRONMENTAL STRESS AND EXERCISE 3 Credit Hours
(Slashed with EXPH 65076) Effects of heat, cold, pressure, pollution and psychological stress upon physiological responses to exercise. Lecture and laboratory.
Prerequisite: Doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
EXPH 75080 PHYSIOLOGICAL BASIS OF EXERCISE AND SPORT 3 Credit Hours
(Slashed with EXPH 65080) Application of physiological concepts to human performance. Includes role of testing, training, strength and endurance, nutritional considerations, environmental influences, and adapted exercise programs.
Prerequisite: Doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
EXPH 75081  ENERGY METABOLISM AND BODY COMPOSITION  3 Credit Hours
(Slashed with EXPH 65081) Measurement of metabolic response to exercise. Topics include ergometry, spirometry, energy expenditure, body composition and performance correlates of strength, power and endurance.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXPH 75082  CARDIO-RESPIRATORY FUNCTION  3 Credit Hours
(Cross-listed with EXPH 65082) Measurement of the cardiovascular-respiratory response to exercise. Includes resting spirometry, lung function during exercise, electrocardiography, blood pressure, PWC testing and exercise prescription.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXPH 75083  EXERCISE ENERGY METABOLISM  3 Credit Hours
(Slashed with EXPH 65083) Energy transformations during exercise. Emphasis on controlling mechanisms that regulate the anabolic and catabolic responses to both acute and chronic exercise.
Prerequisite: Doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 75084  CARDIOVASCULAR-RESPIRATORY DYNAMICS DURING EXERCISE  3 Credit Hours
(Slashed with EXPH 65084) Responses of the cardiovascular and respiratory systems to exercise. Use of noninvasive methods to measure cardio-respiratory function emphasized. Lecture and laboratory.
Prerequisite: Doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 75086  NEUROBIOLOGY OF EXERCISE AND MOVEMENT  3 Credit Hours
(Slashed with EXPH 65086) Provides students with knowledge to understand the role of the muscular and nervous systems in human movement and exercise. Motor disorders and rehabilitation techniques will also be discussed. Lecture and laboratory.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXPH 75192  INTERNSHIP IN EXERCISE PHYSIOLOGY  1-9 Credit Hours
(Repeatable for a maximum of 9 credit hours) Field experience in exercise physiology programs and testing in Kent State University adult fitness program or cooperating agencies.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 3-27 other
Grade Mode: Satisfactory/Unsatisfactory-IP

EXPH 83098  RESEARCH  1-15 Credit Hours
(Repeatable for credit) Research for doctoral students.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Research
Contact Hours: 1-15 other
Grade Mode: Satisfactory/Unsatisfactory-IP

EXPH 83199  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

Exercise Science (EXSC)

EXSC 15010  INTRODUCTION TO EXERCISE SCIENCE  2 Credit Hours
Introduction to the discipline of exercise science, including the history of the field, current position stands of the American College of Sports Medicine, the responsibilities and roles of the exercise physiologist and the current trends in exercise science.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter
Attributes: CTAG Exercise Science

EXSC 23093  VARIABLE TITLE WORKSHOP IN EXERCISE SCIENCE  1-3 Credit Hours
(Repeatable for credit) Workshop to develop mastery and application of knowledge and skills that address issues in exercise science; topics vary. Satisfactory/unsatisfactory (S/U) graded.
Prerequisite: None.
Schedule Type: Workshop
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory

EXSC 25057  HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)  4 Credit Hours
(Cross-listed with ATTR 25057) Comprehensive examination of anatomy and physiology related to the organization of the body and basic cell and tissue types. Specific structure and function of the muscular, skeletal, integumentary, and nervous systems are addressed.
Prerequisite: None.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 3 lecture, 2 lab
Grade Mode: Standard Letter
Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab
EXSC 25058  HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)  4 Credit Hours
(Cross-listed with ATTR 25058) Comprehensive examination of anatomy and physiology related to the human body under rest and exercise conditions. Specific structure and function of the metabolic, endocrine, lymphatic, digestive, urinary and reproductive systems are addressed. Advanced coverage of neurological, cardiovascular and respiratory systems are also addressed.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 3 lecture, 2 lab
Grade Mode: Standard Letter
Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab

EXSC 34000  EXERCISE SCIENCE FOR ESPORTS  3 Credit Hours
This course examines topics within the field of exercise science and relates them to esports performance. Topics will include physical activity, sedentary behavior, mental and physical health and exercise physiology. By relating these topics to esports, students will gain an understanding of what may enhance and also diminish esport performance.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXSC 35054  BIOMECHANICS  3 Credit Hours
(Cross-listed with ATTR 35054) Anatomical and mechanical bases of human movement. Emphasis is placed on tools and techniques for motion analysis, mechanical concepts, forces and performance analysis. Lecture and laboratory.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXSC 35068  STATISTICS FOR THE EXERCISE SCIENTIST  3 Credit Hours
Measurement and statistics applied to physical education and exercise/sport sciences; laboratory experiences in statistics test construction and administration and evaluation.
Prerequisite: None.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXSC 35075  EXERCISE PROGRAMMING  3 Credit Hours
Problems and issues in developing exercise programs in institutional and commercial settings.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXSC 40612  EXERCISE LEADERSHIP FOR THE OLDER ADULT  3 Credit Hours
(Cross-listed with EXPH 50612) Designed to provide students with a knowledge base in exercise leadership in the older adult population, including special populations. Students participate in the leading, supervision and evaluation of participants within the exercise program. The also assist in the collection of functional fitness data.
Prerequisite: None.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

EXSC 41000  EXERCISE IMPLEMENTATION: AN EXERCISE INTERVENTION PROGRAM  1-3 Credit Hours
(Repeatable for credit) Students will participate in leading, supervising and developing plans for individuals who want to reduce cardiovascular risk factors through structured exercise.
Prerequisite: EXSC 45080.
Schedule Type: Laboratory
Contact Hours: 3-9 other
Grade Mode: Standard Letter

EXSC 43093  VARIABLE TITLED WORKSHOP IN EXERCISE SCIENCE AND EXERCISE PHYSIOLOGY  1-3 Credit Hours
(Repeatable for credit) (Cross-listed with EXPH 53093) Workshop in exercise science, topics vary.
Prerequisite: None.
Schedule Type: Workshop
Contact Hours: 1-3 lecture
Grade Mode: Satisfactory/Unsatisfactory

EXSC 43098  RESEARCH IN EXERCISE SCIENCE (ELR)  1-3 Credit Hours
(Repeatable for a maximum of 12 credit hours) Research project completed under the supervision of a faculty member. Written approval of supervising faculty member and School Director required prior to registration.
Prerequisite: Special approval.
Schedule Type: Research
Contact Hours: 3-9 other
Grade Mode: Satisfactory/Unsatisfactory-IP
Attributes: Experiential Learning Requirement

EXSC 45022  EXERCISE LEADERSHIP  2 Credit Hours
Designed to provide the students with the knowledge base in exercise leadership. Topic areas and competencies using a variety of techniques in leading and demonstrating safe and effective methods of applying the fundamental principles of exercise science. The exercise leader will demonstrate all forms of group exercise, flexibility and balance training. The final exam is the American College of Sports Medicine Certified Exercise Physiologist certification (ACSM-EP). To take this certification requires that you be in the last semester of your senior year.
Prerequisite: EXSC 25057 or ATTR 25057 or BSCI 11010 or BSCI 21010; and EXSC 25058 or ATTR 25058 or BSCI 11020 or BSCI 21020; and senior standing.
Pre/corequisite: EXSC 45080.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

EXSC 45023  PROFESSIONAL CERTIFICATE PREPARATION  2 Credit Hours
This course is designed to prepare students to take the the National Strength and Conditioning Association Certified Strength and Conditioning Specialist (NSCA CSCS). Material covered will include basic exercise science, training adaptations, and methods of resistance-exercise training.
Prerequisite: EXSC 25057 or ATTR 25057 or BSCI 11010 or BSCI 21010; and EXSC 25058 or ATTR 25058 or BSCI 11020 or BSCI 21020; and senior standing.
Pre/corequisite: EXSC 45080.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter
EXSC 45040  ADVANCED STRENGTH AND CONDITIONING  3 Credit Hours
(Cross-listed with EXPH 55040) Advanced principles in strength and conditioning. Learn and understand the energy systems, anatomy, physiology and proper lifting technique of strength, speed, agility and conditioning exercises for practical application with athletes.
Prerequisite: EXSC 25057 or ATTR 25057 or BSCI 11010 or BSCI 21010; and EXSC 25058 or ATTR 25058 or BSCI 11020 or BSCI 21020.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXSC 45065  EXERCISE TESTING  3 Credit Hours
(Cross-listed with EXPH 55065) Lecture and laboratory experiences dealing with the administration and interpretation of exercise tests.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
Attributes: CTAG Exercise Science

EXSC 45070  ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST  3 Credit Hours
(Cross-listed with EXPH 55070) Designed to provide students with the knowledge base in electrocardiography. Students work on interpreting the 12-lead electrocardiogram with clinical case studies to enhance the knowledge base of the exercise specialist.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

EXSC 45080  PHYSIOLOGY OF EXERCISE (WIC)  3 Credit Hours
(Cross-listed with EXPH 55080) Response of the human to acute and chronic exercise with emphasis on the underlying physiological mechanisms.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

EXSC 45096  INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR)  1-3 Credit Hours
(Repeatable for a maximum of 6 credit hours) Independent study completed under the supervision of a faculty member. Written approval of supervising faculty member and school director required prior to registration.
Prerequisite: Special approval.
Schedule Type: Individual Investigation
Contact Hours: 3-9 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

EXSC 45480  INTERNSHIP SEMINAR IN EXERCISE SCIENCE  1 Credit Hour
Overview of the internship possibilities that are available for the exercise science major. The American College of Sports Medicine (ACSM) certification workshops and the scope of the practice for the exercises specialist is discussed in detail.
Prerequisite: Special approval.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

EXSC 45481  SEMINAR IN EXERCISE PHYSIOLOGY  1 Credit Hour
Provides an overview of the research possibilities and the internship possibilities that are available for the exercise science major. The Institutional Review Board, research methodology and the risks and benefits of research in the area of exercise science are discussed in detail. Also covers The American College of Sports Medicine (ACSM) certification workshops and the scope of the practice for the exercises specialist.
Prerequisite: Special approval.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

EXSC 45492  INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)  1-9 Credit Hours
(Repeatable for a maximum of 9 credit hours) Supervised experience providing practical experience in administration and operation of programs in physical fitness, health enhancement and or cardiac rehabilitation. 45 clock hours per credit hour.
Prerequisite: Special approval.
Schedule Type: Practical Experience
Contact Hours: 3-27 other
Grade Mode: Satisfactory/Unsatisfactory-IP
Attributes: Experiential Learning Requirement

EXSC 46095  SPECIAL TOPICS IN EXERCISE SCIENCE  1-3 Credit Hours
(Repeatable for credit) Selected topics in exercise science dependent upon interest.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

Health Education (HED)

HED 11570  PERSONAL HEALTH  3 Credit Hours
This course examines the leading causes of death and disability in the United States with an emphasis on the application of knowledge and skills to reduce risk and enhance the quality of life.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 11590  COMMUNITY HEALTH EDUCATION  3 Credit Hours
Identification of community health problems and measures for control. Emphasizes principles, objectives and methods of community health education.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
HED 13510  WINNING COMBINATION: HEALTH AND ATHLETES  1 Credit Hour
An exploration of strategies for promoting healthy lifestyles for athletes. The course is reserved for varsity athletes.
Prerequisite: Special approval.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

HED 14020  MEDICAL TERMINOLOGY  3 Credit Hours
Identification of the meaning of various roots and terms and combining forms that are components of medical words, including anatomical physiological and pathological therapeutic terminology and implications for health literacy.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: CTAG Medical Terminology, TAG Health

HED 21030  INTRODUCTION TO HEALTH EDUCATION  3 Credit Hours
This course introduces the student to the health education profession. Roles and responsibilities of health educators in a variety of occupational settings are described.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 21050  HEALTH EDUCATION THEORIES  3 Credit Hours
Application of various attitude and behavior models to health and illness behavior in order to develop a framework for educational intervention.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 30000  TEACHING HEALTH TO YOUNG LEARNERS  3 Credit Hours
Investigate current health issues relevant to children in primary grades, and identify educational strategies to increase student health knowledge, foster positive health attitudes and promote healthy behaviors.
Prerequisite: None.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2.5 lecture, 1.5 other
Grade Mode: Standard Letter

HED 32530  DRUG USE AND MISUSE  3 Credit Hours
Introduction to the study of drug/alcohol abuse. Basic pharmacology of drug actions is reviewed. Common myths misconceptions about drug alcohol use are examined. Current drug problems and related prevention treatment issues are analyzed.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 32542  METHODS AND APPLICATIONS OF HEALTH EDUCATION (WIC)  5 Credit Hours
Analysis observation, demonstration and experience in the teaching-learning process utilizing methods, materials and resources appropriate to the preparation of professional health educators. This course includes 50 field/clinical hours. Students are required to complete Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) background checks and submit the results to authorized personnel at their assigned school/agency before the first day of the semester in which student teaching/ internship will take place.
Prerequisite: HED 11570.
Schedule Type: Lecture
Contact Hours: 5 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

HED 32544  HUMAN SEXUALITY  3 Credit Hours
A study of the role and meaning of human sexuality throughout the life cycle for self and society.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 32556  MARKETING IN HEALTH EDUCATION  3 Credit Hours
Examines the basic elements of marketing processes as they relate to promoting health in communities. Emphasis on application of marketing planning, concepts and practices for service providers involved with health education.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 32575  CONSUMER HEALTH  3 Credit Hours
An overview of the health marketplace including health products, services, financing, promotional practices and consumer protection laws.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 34050  PROGRAM PLANNING AND EVALUATION IN HEALTH EDUCATION  3 Credit Hours
Provides students with the knowledge and skills to assess health resources and needs, develop health programs to meet specific needs in particular populations and determine appropriate measures to evaluate the effectiveness of health programs.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 34060  SMALL GROUP PROCESS  2 Credit Hours
(Cross-listed with CES 37800) Students learn to understand the dynamics of problem solving groups and how to become effective leaders and members. Topics include climate, goals, decision making, communication, leadership, membership. Experience-based learning combined with conceptualizing.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter
HED 36048 Emergency Medical Training 5 Credit Hours
Basic immediate care procedures for victims of acute illnesses and accidents. Course does not conform to EMT-B National Standard Curriculum as adopted by the Ohio Department of Public Safety, Division of EMS.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 5 lecture
Grade Mode: Standard Letter

HED 40093 Variable Title Workshop in Health Education and Promotion 1-3 Credit Hours
(Repeatable for credit) (Slashed with HED 50093 and 70093) Discussion of major issues in health and safety education. Content emphasis and prerequisites vary depending on workshop.
Prerequisite: HED 11590, and special approval.
Schedule Type: Workshop
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory

HED 42041 Health Coaching 3 Credit Hours
(Slashed with HED 52041) Techniques of health coaching and motivational interviewing applied to health education. Individual and group approaches relative to personal, family and societal health issues.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 42222 Adulting 101: Seven Dimensions to a Healthy Adulthood 2 Credit Hours
The transition from college to post-college life can be uncertain. A design for the initial post-college years can alleviate the anxiety and stress that are often experienced. This course will examine issues related to a 7 dimensional model of health-financial, environmental, emotional, intellectual, physical, social, occupational-and apply those dimensions to a post-college life design process.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

HED 42392 Student Teaching in Health Education (ELR) 9 Credit Hours
Provides a twelve week student teaching experience. See student teaching section of catalog. Students are required to complete Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) background checks and submit the results to authorized personnel at their assigned school/agency before the first day of the semester in which student teaching/internship will take place.
Prerequisite: Eligibility for admission to student teaching and admission to advanced study; and official valid certification of child safety training, approved basic life support and ALICE training must be presented to the campus office of clinical experience or designated faculty/staff at regional campuses as prerequisite for student teaching.
Schedule Type: Practical Experience
Contact Hours: 27 other
Grade Mode: Satisfactory/Unsatisfactory
Attributes: Experiential Learning Requirement

HED 42575 Health and Learning: Strategies for Students and Teachers 3 Credit Hours
(Slashed with HED 52575) Focus on health issues/education/environment policy and practice/community strategies to respond to threats confronting students utilizing a coordinated school/community strategy to promote health to improve academic outcomes. CPR and first aid certification required for completion of course.
Prerequisite: Admission to advanced study.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 42779 Happiness and Health 2 Credit Hours
(Slashed with HED 52779) Happiness is a common life goal, yet how to achieve or maintain can be a challenge. The things people think should make them happy don’t, and the things that have been proven to increase happiness are often a surprise. In this class, students explore proven methods to increase happiness, confront the common myths and misperceptions around it and discover how happiness is defined by cultures outside the United States. Students also explore how happiness is related to academic performance, immune function, diet, stress, heart disease and life expectancy.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

HED 44025 Women’s Health Issues 3 Credit Hours
(Slashed with HED 54025) Traditional and feminist analysis of women’s health issues and the health educational responses to those issues.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 44051 Biobehavioral Aspects of Disease Prevention in Health Education and Promotion 3 Credit Hours
The etiology and pathogenesis of major diseases are studied from a biopsychosocial perspective with an emphasis on implications for disease prevention, health promotion and behavioral intervention.
Prerequisite: Junior or senior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 44092 Internship in Community Health Education (ELR) 9 Credit Hours
(Repeatable for credit) Participation for one academic semester in the health education and promotion activities of an approved agency, organization or industry.
Prerequisite: Senior standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 27 other
Grade Mode: Satisfactory/Unsatisfactory
Attributes: Experiential Learning Requirement

HED 44095 Special Topics: Health Education and Promotion 1-3 Credit Hours
(Repeatable for credit) (Slashed with HED 54095) Selected topics related to public health issues facing professionals in communities, schools, health care settings and the worksite.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter
HED 44096  INDIVIDUAL INVESTIGATION IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours  
(Repeatable for credit) (Slashed with HED 54096 and 74096) Independent reading and/or research directed by a HED faculty member.  
Prerequisite: Permission.  
Schedule Type: Individual Investigation  
Contact Hours: 1-3 other  
Grade Mode: Satisfactory/Unsatisfactory-IP  

HED 44543  ADMINISTRATION OF SCHOOL HEALTH PROGRAMS  3 Credit Hours  
(Slashed with HED 54543) Organizational design and administration of a comprehensive school health program including health services, instruction and environment. This course includes 25 field/clinical hours. CPR and first aid certification required for completion of course.  
Prerequisite: Admission to advanced study.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 44544  SEXUALITY EDUCATION PROGRAMS  3 Credit Hours  
(Slashed with HED 54544) This course prepares students to develop, implement, and evaluate sexuality education programs in school and community settings.  
Prerequisite: HED 32544.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 44550  DRUG ABUSE AND VIOLENCE EDUCATION PROGRAMS  3 Credit Hours  
(Slashed with HED 54550) Drug abuse and violence prevention from theoretical, philosophical, empirical and practical perspectives. Application of theories to plan, implement, and evaluate drug and violence education programs.  
Prerequisite: HED 32530.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 46052  STRESS: RECOGNITION AND MANAGEMENT  2 Credit Hours  
(Slashed with HED 56052) An examination of stress, its role as a predisposing factor for various illnesses and diseases, types of stressors, the body’s reaction to stress, and techniques for recognizing, preventing and reducing stress.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 2 lecture  
Grade Mode: Standard Letter  

HED 46057  ADVANCED HUMAN SEXUALITY  3 Credit Hours  
(Slashed with HED 56057) Selected aspects of human sexuality; history, cross-cultural perspectives, medical/surgical conditions and sex therapy and counseling.  
Prerequisite: HED 32544.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 46070  HEALTH RELATED ASPECTS OF AGING  3 Credit Hours  
(Slashed with HED 56070) Theories of biological aging and identification of major health hazards, age-related diseases and age changes, their prevention and control. The health care delivery system for the elderly.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 47070  AIDS: ISSUES, EDUCATION AND PREVENTION  3 Credit Hours  
(Slashed with HED 57070) This course provides an extensive overview of the human immunodeficiency virus epidemic as it has developed and exists today. A particular emphasis will be given to aids education and prevention issues and strategies.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 50093  VARIABLE TITLE WORKSHOP IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours  
(Repeatable for credit) (Slashed with HED 40093 and 70093) Public health issues facing professionals in communities, schools, health care settings and the worksite.  
Prerequisite: Junior or senior standing.  
Schedule Type: Seminar  
Contact Hours: 1-3 other  
Grade Mode: Standard Letter  

HED 49525  INQUIRY SEMINAR INTO PROFESSIONAL PRACTICE  3 Credit Hours  
(Repeatable for credit) (Slashed with HED 57091 and 77091) Public health issues facing professionals in communities, schools, health care settings and the worksite.  
Prerequisite: Graduate standing.  
Schedule Type: Workshop  
Contact Hours: 1-3 other  
Grade Mode: Satisfactory/Unsatisfactory  

HED 47091  CURRENT ISSUES IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours  
(Repeatable for credit) (Slashed with HED 57091 and 77091) Public health issues facing professionals in communities, schools, health care settings and the worksite.  
Prerequisite: Junior or senior standing.  
Schedule Type: Seminar  
Contact Hours: 1-3 other  
Grade Mode: Standard Letter  

HED 52041  HEALTH COACHING  3 Credit Hours  
(Slashed with HED 42041) Techniques of health coaching and motivational interviewing applied to health education. Individual and group approaches relative to personal, family and societal health issues.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter
HED 52575  HEALTH AND LEARNING: STRATEGIES FOR STUDENTS AND TEACHERS  3 Credit Hours
(Slashed with HED 42575) Focus on health issues/education/environment policy and practice/community strategies to respond to threats confronting students, utilizing a coordinated school community strategy to promote health and improve academic outcomes. CPR first aid certification required for completion of course.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 52779  HAPPINESS AND HEALTH  2 Credit Hours
(Slashed with HED 42779) Happiness is a common life goal, yet how to achieve or maintain can be a challenge. The things people think should make them happy don’t; and the things that have been proven to increase happiness are often a surprise. In this class, students explore proven methods to increase happiness, confront the common myths and misperceptions around it and discover how happiness is defined by cultures outside the United States. Students also explore how happiness is related to academic performance, immune function, diet, stress, heart disease and life expectancy.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

HED 54025  WOMEN'S HEALTH ISSUES  3 Credit Hours
(Slashed with HED 44025) Traditional and feminist analysis of women's health issues and the health educational responses to those issues.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 54051  BIOBEHAVIORAL ASPECTS OF DISEASE PREVENTION IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours
(Slashed with HED 44051) The etiology and pathogenesis of major diseases are studied from a biopsychosocial perspective with an emphasis on implications for disease prevention, health promotion and behavioral intervention.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 54095  SPECIAL TOPICS: HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours
(Repeatable for credit) (Slashed with HED 44095) Selected topics related to public health issues facing professionals in communities, schools, health care settings and the worksite.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

HED 54096  INDIVIDUAL INVESTIGATION IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours
(Repeatable for credit) (Slashed with HED 44096 and 74096) Independent reading and/or research directed by a graduate faculty member. Students are required to complete Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) background checks and submit the results to authorized personnel at their assigned school/agency before the first day of the semester in which student teaching/internship will take place.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Individual Investigation
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

HED 54543  ADMINISTRATION OF SCHOOL HEALTH PROGRAMS  3 Credit Hours
(Slashed with HED 44543) Organizational design and administration of a comprehensive school health program including health services, instruction and environment. This course includes 25 field/clinical hours. CPR and first aid certification required for completion of course.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 54544  SEXUALITY EDUCATION PROGRAMS  3 Credit Hours
(Slashed with HED 44544) This course prepares students to develop, implement, and evaluate sexuality education programs in school and community settings.
Prerequisite: HED 64063; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 54550  DRUG ABUSE AND VIOLENCE EDUCATION PROGRAMS  3 Credit Hours
(Slashed with HED 44550) Drug abuse and violence prevention from theoretical, philosophical, empirical, and practical perspectives. Application of theories to plan, implement, and evaluate drug and violence education programs.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 56052  STRESS: RECOGNITION AND MANAGEMENT  2 Credit Hours
(Slashed with HED 46052) An examination of stress, its role as a predisposing factor for various illnesses and diseases, types of stressors, the body’s reaction to stress, and techniques for recognizing, preventing and reducing stress.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

HED 56057  ADVANCED HUMAN SEXUALITY  3 Credit Hours
(Slashed with HED 46057) Selected aspects of human sexuality: history, cross-cultural perspectives, medical/surgical therapy and counseling.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
HED 56070 HEALTH RELATED ASPECTS OF AGING 3 Credit Hours
(Slashed with HED 46070) Theories of biological aging and identification of major health hazards, age-related diseases and age changes, their prevention and control. The health care delivery system for the elderly.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 57070 AIDS: ISSUES, EDUCATION AND PREVENTION 3 Credit Hours
(Slashed with HED 47070) This course provides an extensive overview of the human immunodeficiency virus epidemic as it has developed and exists today. A particular emphasis will be given to AIDS education and prevention issues and strategies.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 57091 CURRENT ISSUES IN HEALTH EDUCATION AND PROMOTION 1-3 Credit Hours
(Repeatable for credit) (Slashed with HED 47091 and 77091) Public health issues facing professionals in communities, schools, health care settings and the worksite.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter

HED 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

HED 60299 THESIS II 2 Credit Hours
Thesis students must continue registration each semester until all degree requirements are met.
Prerequisite: HED 60199; and graduate standing.
Schedule Type: Masters Thesis
Contact Hours: 2 other
Grade Mode: Satisfactory/Unsatisfactory-IP

HED 64030 INTRODUCTION TO RESEARCH AND DATA ANALYSIS IN HEALTH EDUCATION AND PROMOTION 3 Credit Hours
Introduction of research methods in the field of health education and health promotion. Includes basic knowledge and skills in research design and concepts of descriptive and inferential statistics.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 64050 HEALTH BEHAVIOR 3 Credit Hours
(Slashed with HED 84050) Analysis of a broad range of theoretical and empirical models of health and illness behavior.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 64054 DEVELOPMENTAL APPROACHES IN TEACHING SCHOOL HEALTH EDUCATION 3 Credit Hours
(Slashed with HED 84054) Develop and implement standards based, culturally sensitive, developmentally appropriate, and ability centered health education unit and lesson plans with K-12 school populations. Students complete ODHE required field experience hours in this course for additional licensure in school health.
Prerequisite: HED 54544 and HED 64063; and graduate standing.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2 lecture, 3 other
Grade Mode: Standard Letter

HED 64055 NEEDS ASSESSMENT AND EVALUATION IN HEALTH PROMOTION 3 Credit Hours
(Slashed with HED 84055) Students will assess individual and community needs for health promotion programs based on multiple sources of health data. Students will develop a rational plan to meet identified needs.
Prerequisite: HED 64050; and HED 64051; and HED 64063; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 64057 PROGRAM PLANNING AND IMPLEMENTATION IN HEALTH PROMOTION 3 Credit Hours
(Slashed with HED 84057) Students will develop, implement, and evaluate a health education and promotion program plan specific to a target audience and health issue.
Prerequisite: HED 64050 and HED 64055 and HED 64061 and HED 64063; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 64059 COMMUNICATION AND MARKETING IN HEALTH EDUCATION AND PROMOTION 3 Credit Hours
(Slashed with HED 84059) Introduction to the theory and practice of planning, implementing, and evaluating marketing and communication programs in health promotion.
Prerequisite: HED 64050 and HED 64061; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 64061 FOUNDATIONS OF HEALTH EDUCATION AND PROMOTION 3 Credit Hours
(Slashed with HED 84061) Historical, sociological and philosophical factors that have influenced definitions and the practice of health education and promotion are studied. Professional associations/leadership, government initiatives, standards of practice and accreditations are examined.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
HED 64062 ADMINISTRATION AND GRANT WRITING IN HEALTH PROMOTION  3 Credit Hours  
(Slashed with HED 84062) Basic concepts in the administration of health education promotion programs and grant writing. Coordination of program services, consultative relationships, management of human and fiscal resources, and organizational leadership are addressed as well as grant writing skills.  
Prerequisite: HED 64061 and Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 64063 STRATEGIES IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours  
(Slashed with HED 84063) Health education and promotion methods and strategies are presented to develop programs and lesson plans for a variety of audiences, learning environments, and intervention levels.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 64070 WORKSITE HEALTH PROMOTION  3 Credit Hours  
(Slashed with HED 84070) Program planning and evaluation of health promotion programs in business and industry with an emphasis on the role of health educators.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 64080 ADVOCACY AND POLICY ISSUES IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours  
(Slashed with HED 84080) Emphasizes the advocacy role of health educators. Includes use of research results to develop, analyze and influence health policy.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

HED 64094 COLLEGE TEACHING OF HEALTH EDUCATION AND PROMOTION  2 Credit Hours  
(Repeatable for credit) (Cross-listed with HED 84094) Guided experiences in teaching selected undergraduate courses.  
Prerequisite: Graduate standing; and special approval.  
Schedule Type: Lecture  
Contact Hours: 2 other  
Grade Mode: Satisfactory/Unsatisfactory  

HED 64096 INDIVIDUAL INVESTIGATION: READINGS IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours  
(Repeatable for credit) (Slashed with HED 84096) Independent study of approved topics in health and safety education related to the student's special interests. Adviser's permission required to repeat registration one time.  
Prerequisite: Health Education or Public Health major; and graduate standing; and special approval.  
Schedule Type: Individual Investigation  
Contact Hours: 3-9 other  
Grade Mode: Standard Letter-S/U  

HED 64098 PROJECT IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours  
(Repeatable for credit) (Slashed with HED 84098) Research or individual investigation for master's level graduate students.  
Prerequisite: Grading standing; and special approval.  
Schedule Type: Research  
Contact Hours: 1-3 other  
Grade Mode: Standard Letter  

HED 70093 VARIABLE TITLE WORKSHOP IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours  
(Repeatable for credit) (Slashed with HED 40093 and 50093) Discussion of major issues in health and safety education. Content emphasis and prerequisites vary depending on workshop.  
Prerequisite: Doctoral standing.  
Schedule Type: Workshop  
Contact Hours: 1-3 other  
Grade Mode: Satisfactory/Unsatisfactory  

HED 74096 INDIVIDUAL INVESTIGATION IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours  
(Repeatable for credit) (Slashed with HED 44096 and 54096) Independent reading and/or research directed by a graduate faculty member. Students are required to complete Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) background checks and submit the results to authorized personnel at their assigned school/agency before the first day of the semester in which student teaching/ internship will take place.  
Prerequisite: Doctoral standing; and special approval.  
Schedule Type: Individual Investigation  
Contact Hours: 1-3 other  
Grade Mode: Satisfactory/Unsatisfactory-IP  

HED 77091 CURRENT ISSUES IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours  
(Repeatable for credit) (Slashed with HED 47091 and 57091) Public health issues facing professionals in communities, schools, health care settings and the worksite.  
Prerequisite: Graduate standing.  
Schedule Type: Seminar  
Contact Hours: 1-3 other  
Grade Mode: Standard Letter  

HED 80199 DISSERTATION I  15 Credit Hours  
(Repeatable for credit) Registration for two semesters required, first semester dissertation work begins and continues until completion of 30 hours.  
Prerequisite: Doctoral standing.  
Schedule Type: Dissertation  
Contact Hours: 15 other  
Grade Mode: Satisfactory/Unsatisfactory-IP  

HED 80292 PRACTICUM IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours  
(Repeatable for credit) In this course, students obtain permission to work with an individual faculty member on research, community projects, or other professional activities in various health education settings (school, community, medical care, worksite). Assignments are individualized to meet the needs of the practicum experience.  
Prerequisite: Doctoral standing; and special approval.  
Schedule Type: Practical Experience  
Contact Hours: 9 other  
Grade Mode: Satisfactory/Unsatisfactory-IP
HED 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 degree requirements are met.
Prerequisite: Doctoral standing.
Schedule Type: Dissertation
Contact Hours: 15 other
Grade Mode: Satisfactory/Unsatisfactory-IP

HED 81100  RESIDENCY SEMINAR: SYNTHESIS OF LITERATURE IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours
Exploration of philosophical, theoretical and empirical issues in health education and promotion. Students synthesize courses, research and practice in preparation for comprehensive examinations.
Prerequisite: Doctoral standing; and special approval of instructor.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

HED 81150  SEMINAR: PROFESSIONAL DEVELOPMENT IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours
Focuses on the process, practice and documentation of professional development in health education and promotion in the areas of instruction, program development, research and evaluation.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Satisfactory/Unsatisfactory

HED 81200  RESIDENCY SEMINAR: RESEARCH PROPOSAL, DEVELOPMENT AND PRESENTATION  3 Credit Hours
Review of the role of research and scholarly pursuits in the professorate, the professional health education literature, and in the development and dissemination of a range of scholarly products. Identification of requisite elements of a dissertation in health education and promotion. Refinement of a professional vita, updating of doctoral program prospectus, specification of dissertation topic, identification of potential dissertation committee members, development and presentation of draft dissertation proposal.
Prerequisite: Doctoral standing; and special approval of instructor.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

HED 81300  HEALTH EDUCATION PRACTICE  3 Credit Hours
Investigation of various health education settings including analysis of agency programming efforts and comparison to evidence-based practice. Application of community assessment, socioecological model, and community-based participatory research principles. Analysis of how health education theory and research are implemented in various practice settings.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 81400  RESEARCH DISSEMINATION AND TECHNICAL WRITING IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours
Examination and practice of technical writing for research proposals, technical reports, and journal publications in health education and promotion. Other methods of disseminating research such as preparation and submission of conference presentation applications and writing as part of consultative relationships with community agencies is explored.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 81450  ADVANCED PROGRAM EVALUATION IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours
A review of evaluation methods used in health education programs. Emphasis is placed on data collection procedures, linking program activities to outcomes, participant attrition and reporting of the results.
Prerequisite: HED 64055 and HED 64057; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 81550  APPLIED THEORY IN HEALTH EDUCATION RESEARCH AND PRACTICE  3 Credit Hours
Examination of theory/models/hypotheses applied to specific health behaviors. Emphasis on operationalization of theoretical constructs.
Prerequisite: HED 64050 or HED 74050.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84030  INTRODUCTION TO RESEARCH AND DATA ANALYSIS IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours
Introduction of research methods in the field of health education and health promotion. Includes basic knowledge and skills in research design and concepts of descriptive and inferential statistics.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84050  HEALTH BEHAVIOR  3 Credit Hours
(Slashed with HED 64050) Analysis of a broad range of theoretical and empirical models of health and illness behavior.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84051  BIOBEHAVIORAL ASPECTS OF DISEASE PREVENTION IN HEALTH EDUCATION AND PROMOTION  3 Credit Hours
The etiology and pathogenesis of major diseases are studied from a biopsychosocial perspective with an emphasis on implications for disease prevention, health promotion and behavioral intervention.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
HED 84054 DEVELOPMENTAL APPROACHES IN TEACHING SCHOOL HEALTH EDUCATION 3 Credit Hours
(Slashed with HED 64058) Develop and implement standards based, culturally sensitive, developmentally appropriate, and ability centered health education unit and lesson plans with K-12 school populations. Students complete ODHE required field experience hours in this course for additional licensure in school health.
Prerequisite: HED 54544 and HED 84063; and doctoral standing.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2 lecture, 3 other
Grade Mode: Standard Letter

HED 84055 NEEDS ASSESSMENT AND EVALUATION IN HEALTH PROMOTION 3 Credit Hours
(Slashed with HED 64055) Students will assess individual and community needs for health promotion programs based on multiple sources of health data. Students will develop a rational plan to meet identified needs.
Prerequisite: HED 64050 or 84050; and HED 64061 or 84061; and HED 64063 or 84063; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84057 PROGRAM PLANNING AND IMPLEMENTATION IN HEALTH PROMOTION 3 Credit Hours
(Slashed with HED 64057) Students will develop, implement, and evaluate a health education and promotion program plan specific to a target audience and health issue.
Prerequisite: HED 64050 or 84050; and HED 64055 or 84055; and HED 64061 or 84061; and HED 64063 or 84063; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84059 COMMUNICATION AND MARKETING IN HEALTH EDUCATION AND PROMOTION 3 Credit Hours
(Slashed with HED 64059) Introduction to the theory and practice of planning, implementing, and evaluating marketing and communication programs in health promotion.
Prerequisite: HED 64050 or 84050; and HED 64061 or 84061; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84061 FOUNDATIONS OF HEALTH EDUCATION AND PROMOTION 3 Credit Hours
(Slashed with HED 64061) Historical, sociological and philosophical factors that have influenced definitions and the practice of health education and promotion are studied. Professional associations/leadership, government initiatives, standards of practice and accreditations are examined.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84062 ADMINISTRATION AND GRANT WRITING IN HEALTH PROMOTION 3 Credit Hours
(Slashed with HED 64062) Basic concepts in the administration of health education promotion programs and grant writing. Coordination of program services, consultative relationships, management of human and fiscal resources, and organizational leadership are addressed as well as grant writing skills.
Prerequisite: HED 64061 or 84061; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84063 STRATEGIES IN HEALTH EDUCATION AND PROMOTION 3 Credit Hours
(Slashed with HED 64063) Health education and promotion methods and strategies are presented to develop programs and lesson plans for a variety of audiences, learning environments, and intervention levels.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84066 HEALTH IN THE DEVELOPING NATIONS 3 Credit Hours
Overview of national development, review of problems process and strategy of health development.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84070 WORKSITE HEALTH PROMOTION 3 Credit Hours
(Slashed with HED 64070) Program planning and evaluation of health promotion programs in business and industry with an emphasis on the role of health educators.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84080 ADVOCACY AND POLICY ISSUES IN HEALTH EDUCATION AND PROMOTION 3 Credit Hours
(Slashed with HED 64080) Emphasizes the advocacy role of health educators. Includes use of research results to develop analyze and influence health policy.
Prerequisite: Doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

HED 84094 COLLEGE TEACHING OF HEALTH EDUCATION AND PROMOTION 2 Credit Hours
(Repeatable for credit) (Slashed with HED 64094) Guided experiences in teaching selected undergraduate courses.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Lecture
Contact Hours: 2 other
Grade Mode: Satisfactory/Unsatisfactory
HED 84096  INDIVIDUAL INVESTIGATION: READINGS IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours
(Slashed with HED 64096) Independent study of approved topics in health and safety education related to the student’s special interests. Adviser’s permission required to repeat registration one time.
Prerequisite: Doctoral standing.
Schedule Type: Individual Investigation
Contact Hours: 3-9 other
Grade Mode: Standard Letter-S/U

HED 84098  PROJECT IN HEALTH EDUCATION AND PROMOTION  1-3 Credit Hours
(Repeatable for credit) (Slashed with HED 64098) Research or individual investigation for doctoral level graduate students.
Prerequisite: Doctoral standing and special approval.
Schedule Type: Research
Contact Hours: 1-3 other
Grade Mode: Standard Letter

Integrated Health Studies (IHS)

IHS 10000  CAREERS IN HEALTH SCIENCES AND HUMAN SERVICES  3 Credit Hours
This course presents the diverse career options in the fields of health sciences and human services. Academic preparation and credentialing for professions will be included.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

IHS 40091  SEMINAR FOR PRACTICUM IN INTEGRATED HEALTH STUDIES  2 Credit Hours
(Repeatable for credit) Seminar focuses on applying concepts from previous educational experiences to the practicum work experience.
Prerequisite: IHS 10000.
Corequisite: IHS 44092.
Schedule Type: Seminar
Contact Hours: 2 other
Grade Mode: Standard Letter

IHS 44010  RESEARCH DESIGN AND STATISTICAL METHODS IN THE HEALTH PROFESSIONS  3 Credit Hours
Fundamental concepts and procedures for systematic collection, analysis and interpretation of qualitative and quantitative data in health related fields includes group and single-subject designs and use of parametric and nonparametric statistics.
Prerequisite: PSYC 21621.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

IHS 44091  PROFESSIONAL SEMINAR IN INTEGRATED HEALTH STUDIES (WIC)  3 Credit Hours
(Repeatable for credit) This course presents and integrates the role of scientists, practitioners and administrators in the health care and human service professions as they attempt to meet the needs of the individual in diverse environments. Current issues will be addressed. 400 hours observation/work experience in health/human service-related fields required prior to registration for this course.
Prerequisite: Senior standing; and special approval.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

IHS 44092  PRACTICUM IN INTEGRATED HEALTH STUDIES (ELR)  3-10 Credit Hours
(Repeatable for credit) Practicum focuses on providing supervised practical experience in a health science, health care and human services organization which allows students to apply theoretical knowledge and skills learned in their coursework.
Prerequisite: Integrated health studies majors; and senior standing; and special approval.
Corequisite: IHS 40091.
Schedule Type: Practical Experience
Contact Hours: 9-30 other
Grade Mode: Satisfactory/Unsatisfactory-IP
Attributes: Experiential Learning Requirement

IHS 44095  SPECIAL TOPICS IN INTEGRATED HEALTH STUDIES  1-3 Credit Hours
(Repeatable for credit) Selected topics in integrated health dependent upon interest.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

Nutrition (NUTR)

NUTR 10011  NUTRITIONAL OUTREACH: A HOW-TO FOR LIFE-LONG HEALTHY EATING  1 Credit Hour
Teaches basic nutrition information for healthy eating, including the important nutritional aspects of cooking, shopping, dining and disease prevention related to dietary intake.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter
NUTR 23012  INTRODUCTORY FOOD SCIENCE  3 Credit Hours
(Cross-listed with HEM 23212) Principles of food preparation and quality evaluation, with an emphasis on food science concepts, nutrition, food consumption trends and government regulation.
Prerequisite: NUTR 23511.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 3 lab
Grade Mode: Standard Letter

NUTR 23112  INTRODUCTION TO THE PROFESSION: NUTRITION AND DIETETICS  1 Credit Hour
Discusses academic requirements for the Nutrition major, the history of the nutrition profession as well as current credentialing and licensing requirements. Explores the opportunities within the field of dietetics. Teaches methods to document academic, personal and professional skills.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

NUTR 23510  QUANTITY FOOD PRODUCTION, SERVICE AND SAFETY  3 Credit Hours
(Cross-listed with HM 23510) The application of management principles in quantity food production and service systems, including safety and sanitation; production forecasting and management; distribution; and service, commercial equipment and physical facilities. Introduction to inventory, recipe standardization and considerations of nutrition, quality and sustainability in quantity production.
Prerequisite: NUTR 23112.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 3 lab
Grade Mode: Standard Letter

NUTR 23511  SCIENCE OF HUMAN NUTRITION (KBS)  3 Credit Hours
Basic concepts and principles in the science of human nutrition, energy balance and weight control, individual nutrient needs, diet selection, nutrition related metabolism and physiological functions, nutritional diseases and current human nutrition controversies.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Kent Core Basic Sciences, TAG Health

NUTR 33512  INTERMEDIATE NUTRITION SCIENCE  3 Credit Hours
Functions, sources, utilization and interactions of essential nutrients and associated physiology. Principles of designing a healthy diet using dietary standards and guidelines while considering nutrient needs of different populations.
Pre/corequisite: CHEM 20481 or CHEM 30481.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 33522  INTRODUCTION TO NUTRITION ASSESSMENT  3 Credit Hours
Application of nutrition principles, including nutrition-focused physical assessment, dietary intake assessment, nutrition surveys, introduction to medical records, nutrition interviewing, dietary standards and food exchange lists.
Prerequisite: NUTR 23511 and PSYC 11762 and SOC 12050; and nutrition major.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

NUTR 33532  BUSINESS AND MANAGEMENT OF NUTRITION SERVICES  3 Credit Hours
Course explores the business management side of dietetics. Covers application of management theories, from dietetic programs and services to budgeting, billing and coding, in addition to quality improvement in dietetics programs and departments.
Prerequisite: NUTR 23511.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 35319  NUTRITION, HEALTH AND SOCIETY  3 Credit Hours
Course explores the role of environment, food, nutrition and lifestyle choices in promoting health and preventing disease. Focus is on the fundamentals of public policy, including legislative and regulatory basis of nutrition and dietetics practices.
Prerequisite: NUTR 23511.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 33015  SPECIAL TOPICS IN NUTRITION  1-4 Credit Hours
(Repeatable for credit) Discussion of a major topic within a specific field in nutrition and dietetics. Topic varies per course offering.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1-4 lecture
Grade Mode: Standard Letter

NUTR 41095  INDIVIDUAL INVESTIGATION IN NUTRITION  1-3 Credit Hours
(Repeatable for credit) Students undertake an independent study in an area of nutrition and dietetics that is 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: 1-3 other
Grade Mode: Standard Letter

NUTR 43013  RESEARCH AND STATISTICAL METHODS IN NUTRITION AND DIETETICS (WIC)  3 Credit Hours
(Repeatable for credit) Student gain experience in research methods related to nutrition and dietetics, principles of experimental design, data analysis and techniques of scientific writing.
Prerequisite: NUTR 33512.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course
NUTR 43016  WORLD FOOD CUSTOMS AND NUTRITION  3 Credit Hours  
(Slashed with NUTR 53016) Understanding the interrelationship between food and agricultural practices of racial, ethnic and religious populations globally.  
Prerequisite: NUTR 23511 and SOC 12050.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

NUTR 43030  FOOD SERVICE SYSTEMS MANAGEMENT  3 Credit Hours  
(Slashed with HTM 53030 and NUTR 53030)(Cross-listed with HEM 43030) Food service systems management, including systems theory; menu planning and evaluation; procurement; food production systems; sustainability; layout and design basics. Management concepts in non-commercial food service, including financial control, marketing, quality, management, leadership and human resources.  
Prerequisite: HEM 23212 or NUTR 23012; and HEM 23510 or NUTR 23510.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

NUTR 43511  MEDICAL NUTRITION THERAPY I  3 Credit Hours  
(Slashed with NUTR 53511) Exploration of the nutrition care process, including documentation, standardized language, nutrition assessment, interpretation of laboratory values and individualized patient care and planning for disease and nutrition needs. Students engage in case studies and nutrition assessment exercises.  
Prerequisite: BSCI 30130 and CHEM 30284 and NUTR 33512.  
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab  
Contact Hours: 2 lecture, 2 lab  
Grade Mode: Standard Letter  

NUTR 43512  MACRONUTRIENT NUTRITIONAL BIOCHEMISTRY  3 Credit Hours  
(Slashed with NUTR 53512) Course explores the mechanisms through which the macronutrients meet biological needs and how these related to applied human nutrition.  
Prerequisite: BSCI 30130 and CHEM 30284 and NUTR 33512.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

NUTR 43513  MICRONUTRIENT NUTRITIONAL BIOCHEMISTRY  3 Credit Hours  
(Slashed with NUTR 53513) Course explores the mechanisms through which micronutrients meet human biological needs in the relationship to underlying applied human nutrition.  
Prerequisite: BSCI 30130 and CHEM 30284 and NUTR 33512.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

NUTR 43514  MEDICAL NUTRITION THERAPY II  3 Credit Hours  
(Slashed with NUTR 53514) Continued exploration of the nutrition care process, including relevant documentation, standardized language, nutrition assessment, interpretation of laboratory values and individualized patient care and planning for disease and nutritional needs. Students engage in case studies and nutritional assessments.  
Prerequisite: NUTR 43511.  
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab  
Contact Hours: 2 lecture, 2 lab  
Grade Mode: Standard Letter  

NUTR 43515  COMMUNITY NUTRITION (ELR)  3 Credit Hours  
(Slashed with NUTR 53515) Introduction to nutrition problems and practices in the community. Principles and techniques of effective education, learning and behavior change theories and techniques. Includes an experiential laboratory component with a focus on planning, implementation, evaluation and outcomes in nutrition education, as well as nutrition communication, programming and counseling techniques.  
Prerequisite: NUTR 33512 and NUTR 33522 and NUTR 33532.  
Schedule Type: Laboratory, Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
Attributes: Experiential Learning Requirement  

NUTR 43518  LIFECYCLE NUTRITION  3 Credit Hours  
(Slashed with NUTR 53518) Explores the nutrition needs through growth, development and aging. Focus is on nutritional needs and issues during conception, pregnancy, lactation, infancy, childhood, adolescence, adulthood and older adulthood.  
Prerequisite: NUTR 33512.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

NUTR 43520  SPORTS NUTRITION  3 Credit Hours  
(Slashed with NUTR 53520) Course focuses on the relationship between nutrition and exercise and the effect of nutrition on sports performance.  
Prerequisite: NUTR 33512.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

NUTR 43519  FOOD CHOICES FOR PRESCRIBED DIETARY MODIFICATION  2 Credit Hours  
(Slashed with NUTR 53519) Adapting adequate normal diet in terms of food choices to accommodate prescribed food restriction or bodily dysfunction.  
Prerequisite: NUTR 23511; course is not open to students in the nutrition major.  
Schedule Type: Lecture  
Contact Hours: 2 lecture  
Grade Mode: Standard Letter  

NUTR 43522  INTEGRATIVE AND FUNCTIONAL NUTRITION  2 Credit Hours  
(Slashed with NUTR 53522) Introduces the foundations of integrative and functional medicine as it relates to nutrition. Includes personalized nutrition, nutrigenomics, complementary and alternative therapies, nutraceuticals and functional foods, in addition to the interaction of food on supplement and drug efficacy.  
Prerequisite: NUTR 33512.  
Schedule Type: Lecture  
Contact Hours: 2 lecture  
Grade Mode: Standard Letter  

NUTR 43523  NUTRITION AND DIETETICS: PROFESSIONAL PRACTICE  1 Credit Hour  
Development of professional awareness. Evaluation of professional growth and formulation of plans for continued growth.  
Prerequisite: Nutrition major; and senior standing.  
Schedule Type: Lecture  
Contact Hours: 1 lecture  
Grade Mode: Standard Letter
NUTR 43524  NUTRITION AND DIETETICS: PROFESSIONAL PRACTICE  
2 Credit Hours
Development of professional awareness, leadership and career goals. Evaluation of professional growth and formulation of plans for continued growth in the profession of nutrition and dietetics.
Prerequisite: Nutrition major; and senior standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

NUTR 43532  METHODS AND EXPERIENCES IN NUTRITION OUTREACH  
3 Credit Hours
(Slashed with NUTR 53532) Students learn methods for development and evaluation techniques used for nutrition outreach programming; the role of community nutrition education in public health; and the impact of nutrition programming on disease prevention and management. Students engage in service learning opportunities in community nutrition education.
Prerequisite: Special approval.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2.5 lecture, 4 other
Grade Mode: Standard Letter

NUTR 45092  PRACTICUM IN NUTRITION (ELR)  
1-3 Credit Hours
Application of education in pre-professional experience in clinical, community nutrition and foodservice environments. Combination of nutrition experiences throughout the semester.
Prerequisite: Special approval.
Schedule Type: Practical Experience
Contact Hours: 3-9 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

NUTR 45098  RESEARCH IN NUTRITION (ELR)  
1-3 Credit Hours
Students engage in research under the supervision of a nutrition faculty member. Students may develop a research idea or work on faculty-led research.
Prerequisite: Special approval.
Schedule Type: Research
Contact Hours: 3-9 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

NUTR 53013  RESEARCH AND STATISTICAL METHODS IN NUTRITION  
3 Credit Hours
(Slashed with NUTR 43013) Students gain experience in research methods related to nutrition and dietetics, principles of experimental design, data analysis and techniques of scientific writing.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 53016  WORLD FOOD CUSTOMS AND NUTRITION  
3 Credit Hours
(Slashed with NUTR 43016) Understanding the interrelationship between food and agricultural practices of racial, ethnic and religious populations globally.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 53030  FOOD SERVICE SYSTEMS MANAGEMENT  
3 Credit Hours
(Slashed with NUTR 43030)(Cross-listed with HM 43030 and HM 53030) Food service systems management, including systems theory; menu planning and evaluation; procurement; food production systems; sustainability; layout and design basics. Management concepts in non-commercial food service, including financial control, marketing, quality, management, leadership and human resources.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 53511  MEDICAL NUTRITION THERAPY I  
3 Credit Hours
(Slashed with NUTR 43511) Exploration of the nutrition care process, including documentation, standardized language, nutrition assessment, interpretation of laboratory values and individualized patient care and planning for disease and nutrition needs. Students engage in case studies and nutrition assessment exercises.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

NUTR 53512  MACRONUTRIENT NUTRITIONAL BIOCHEMISTRY  
3 Credit Hours
(Slashed with NUTR 43512) Course explores the mechanisms through which the macronutrients meet biological need and how these related to applied human nutrition.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 53513  MICRONUTRIENT NUTRITIONAL BIOCHEMISTRY  
3 Credit Hours
(Slashed with NUTR 43513) Course explores the mechanisms through which micronutrients meet human biological needs in the relationship to underlying applied human nutrition.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
NUTR 53514  MEDICAL NUTRITION THERAPY II  3 Credit Hours
(Slashed with NUTR 43514) Continued exploration of the nutrition care process, including relevant documentation, standardized language, nutrition assessment, interpretation of laboratory values and individualized patient care and planning for disease and nutritional needs. Students engage in case studies and nutritional assessments.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

NUTR 53515  COMMUNITY NUTRITION  3 Credit Hours
(Slashed with NUTR 43515) Introduction to nutrition problems and practices in the community. Principles and techniques of effective education, learning and behavior change theories and techniques. Includes an experiential laboratory component with a focus on planning, implementation, evaluation and outcomes in nutrition education, as well as nutrition communication, programming and counseling techniques.
Prerequisite: Graduate standing.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

NUTR 53518  LIFECYCLE NUTRITION  3 Credit Hours
(Slashed with NUTR 43518) Explores the nutrition needs through growth, development and aging. Focus is on nutritional needs and issues during conception, pregnancy, lactation, infancy, childhood, adolescence, adulthood and older adulthood.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 53520  SPORTS NUTRITION  3 Credit Hours
(Slashed with NUTR 43520) Course focuses on the relationship between nutrition and exercise and the effect of nutrition on sports performance.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 53521  FOOD CHOICES FOR PRESCRIBED DIETARY MODIFICATION  2 Credit Hours
Adapting adequate normal diet in terms of food choices to accommodate prescribed food restriction or bodily dysfunction.
Prerequisite: NUTR 23511; course is not open to students in the nutrition major.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

NUTR 53522  INTEGRATIVE AND FUNCTIONAL NUTRITION  2 Credit Hours
(Slashed with NUTR 43522) Introduces the foundations of integrative and functional medicine as it relates to nutrition. Includes personalized nutrition, nutrigenomics, complementary and alternative therapies, nutraceuticals and functional foods, in addition to the interaction of food on supplement and drug efficacy.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

NUTR 53532  METHODS AND EXPERIENCES IN NUTRITION OUTREACH  3 Credit Hours
(Slashed with NUTR 43532) Students learn methods for development and evaluation techniques used for nutrition outreach programming; the role of community nutrition education in public health; and the impact of nutrition programming on disease prevention and management. Students engage in service learning opportunities in community nutrition education.
Prerequisite: Nutrition major; and graduate standing; and special approval.
Schedule Type: Lecture, Practical Experience
Contact Hours: 2.5 lecture, 4 other
Grade Mode: Standard Letter

NUTR 61016  RESEARCH METHODS IN NUTRITION I  3 Credit Hours
Introduces the foundations of research methods and statistics in nutrition sciences. Students are exposed to basic research methods related to quantitative and qualitative methods with an emphasis on quantitative methods. Basic statistical concepts are introduced with a focus on descriptive and inferential statistic common in nutrition science research. During the course, students start developing their thesis or research project.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 61017  RESEARCH METHODS IN NUTRITION II  3 Credit Hours
Course builds upon NUTR 61016 and develops understanding on important aspects of research methods and statistical tests used in nutrition and dietetics.
Prerequisite: NUTR 61016; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 61098  RESEARCH  1-15 Credit Hours
(Repeatable for credit) Research for master's-level students. Credit earned may be applied toward meeting degree requirements with school approval.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Research
Contact Hours: 1-15 other
Grade Mode: Standard Letter/IP

NUTR 61099  MASTER'S PROJECT  2-6 Credit Hours
(Repeatable for credit) Cross-listed with HDFS 61099 Completion and successful defense of a master's project. Master's project 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: Project or Capstone
Contact Hours: 2-6 other
Grade Mode: Satisfactory/Unsatisfactory/IP

NUTR 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; and special approval.
Schedule Type: Masters Thesis
Contact Hours: 2-6 other
Grade Mode: Satisfactory/Unsatisfactory/IP
NUTR 63299  THESIS II  2 Credit Hours
Students must continue registration each semester until all degree requirements are met.
Prerequisite: NUTR 63199; and graduate standing.
Schedule Type: Masters Thesis
Contact Hours: 2 other
Grade Mode: Satisfactory/Unsatisfactory-IP

NUTR 63519  ADVANCED STUDY OF MICRONUTRIENTS  3 Credit Hours
Course covers intake, digestion and absorption of nutrients.
Prerequisite: Nutrition major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 63520  MACRONUTRIENT NUTRITION  3 Credit Hours
Course covers metabolic utilization of macronutrients for body processes.
Prerequisite: Nutrition major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 63521  NUTRITION AND DISEASE: CLINICAL APPLICATIONS  3 Credit Hours
Recent trends and concepts in research and practice of therapeutic dietetics.
Prerequisite: Nutrition major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 63522  COMMUNICATION, MANAGEMENT AND PROFESSIONALISM IN DIETETICS  3 Credit Hours
Explores the importance of communication in a variety of medias as it relates to leadership and management and overall professionalism in nutrition. The areas of management focus include foodservice, community and clinical nutrition management.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 63524  PERSPECTIVE ON PREVENTION AND PRACTICE IN COMMUNITY NUTRITION  3 Credit Hours
Explores the relationship between nutritional epidemiology and the research, policies and programs for the successful treatment and prevention of nutrition related disease in the United States. Focuses on the behavioral and learning theories used in successful nutrition interventions and grant writing to sustain community programs.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NUTR 63525  DIETETIC PRACTICE: COMMUNITY  1 Credit Hour
Discussion focusing on nutrition care in the community setting.
Evaluation and interpretation of the scientific literature.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

NUTR 63526  DIETETIC PRACTICE: MANAGEMENT  1 Credit Hour
Discussion focusing on the management of food and nutrition services.
Evaluation and interpretation of the scientific literature.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

NUTR 63527  DIETETIC PRACTICE: CLINICAL  1 Credit Hour
Discussion focusing on nutrition care in the acute practice setting.
Evaluation and interpretation of the scientific literature.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

School of Health Sciences

NUTR 63591  NUTRITION SEMINAR  1-3 Credit Hours
(Repeatable for credit) Evaluation and interpretation of recent literature in an area of nutrition. Topic varies per course offering.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter

NUTR 63592  DIETETIC INTERNSHIP  1-4 Credit Hours
(Repeatable for credit) Supervised practice component of dietetic internship.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 12-48 other
Grade Mode: Satisfactory/Unsatisfactory

Speech Pathology and Audiology (SPA)

SPA 33101  HEARING AND SPEECH SCIENCE  3 Credit Hours
Acoustics, psychoacoustics, and acoustics of speech production and perception.
Prerequisite: Admittance into the SPA professional phase (minimum 3.00 overall GPA at 60 credits).
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 34102  APPLIED PHONETICS  3 Credit Hours
Basic principles of speech production and phonetic transcriptions of English with the international phonetic alphabet; emphasis on general American dialect.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
SPA 34103  ANATOMY AND PHYSIOLOGY OF SPEECH AND HEARING  
3 Credit Hours  
Functional anatomy and physiology of the respiratory, phonatory, articulatory, neural, and auditory systems as they are used with normal and abnormal speech and hearing.  
Prerequisite: SPA 34104.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 34104  SPEECH AND LANGUAGE ACQUISITION  
3 Credit Hours  
Normal development and linguistic analysis of language systems including phonology, morphology, syntax, semantics, and pragmatics.  
Pre/corequisite: SPA 34102.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 34105  PHONEMIC BASES OF SPEECH AND LANGUAGE  
3 Credit Hours  
Fundamental processes related to production and perception of spoken language, with parallels to writing and reading particular application to normal and hearing impaired children and adolescents. For nonmajors only.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 34106  ARTICULATORY AND PHONOLOGICAL DISORDERS  
3 Credit Hours  
Assessment and remediation of disorders of articulation and phonology.  
Prerequisite: Admittance into the speech pathology and audiology professional phase (minimum 3.000 overall GPA at 60 credits); and SPA 34102 and SPA 34104.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 34107  LANGUAGE DISORDERS IN CHILDREN AND ADOLESCENTS  
3 Credit Hours  
Introduction to assessment and intervention procedures associated with language disorders in children and adolescents.  
Prerequisite: SPA 34104.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 34210  SPEECH AND LANGUAGE DEVELOPMENT  
3 Credit Hours  
Normal development and linguistic analysis of language systems including phonology, morphology, syntax, semantics, and pragmatics. This course is for non-speech pathology and audiology majors.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 43402  AUDIOMETRY  
3 Credit Hours  
(Slashed with SPA 53402) Measurement of human hearing by pure-tone and speech audiometry; evaluation of middle ear function by immittance audiometry; screening techniques; pathologies of the conductive and sensorineural systems.  
Prerequisite: Admittance into the speech pathology and audiology professional phase (minimum 3.000 overall GPA at 60 credits); and SPA 33101.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 43404  AURAL REHABILITATION  
3 Credit Hours  
Basic principles, variables and techniques for understanding, evaluating and improving receptive communication of hearing impaired individuals.  
Prerequisite: Admittance into the speech pathology and audiology professional phase (minimum 3.000 overall GPA at 60 credits); and SPA 33101 and 34102 and 43402 (speech pathology and audiology majors) or 43600 (Education of Hearing Impaired majors).  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 43405  CLINICAL PREPARATION IN AUDIOLOGY (ELR)  
2 Credit Hours  
Exercises and practical experiences in audiometric procedures, test interpretation, and Audiological diagnosis.  
Prerequisite: Admittance into the speech pathology and audiology professional phase (minimum 3.000 overall GPA at 60 hours).  
Corequisite: SPA 43402.  
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab  
Contact Hours: 1 lecture, 2 lab  
Grade Mode: Standard Letter  
Attributes: Experiential Learning Requirement  

SPA 43600  FUNDAMENTALS OF EDUCATIONAL AUDIOLOGY  
3 Credit Hours  
Auditory development and function/dysfunction; auditory assessment and family counseling; selection and fitting of personal and classroom amplification; care and maintenance of amplification systems; collaboration of professionals in audiology and education; communication approaches according to varying levels of hearing loss; classroom environments conducive to auditory and academic learning.  
Prerequisite: Junior standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

SPA 44010  SOCIAL COMMUNICATION DEVELOPMENT AND DISORDERS IN AUTISM SPECTRUM DISORDERS  
3 Credit Hours  
Provides an understanding of the social, communication, and language needs of those with ASD from childhood through adulthood. Examines the cognitive, neurological, social, and environmental components influencing social, communicative functioning. Reviews contemporary assessment and intervention strategies. Explores the use of assistive technology to enhance social communicative functioning in those with ASD.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter
SPA 44020 MEDICAL ASPECTS OF AUTISM SPECTRUM DISORDERS  
3 Credit Hours  
(Cross-listed with SPED 44020) Description of medical issues facing individuals with autism spectrum disorders (ASD) and their families. Examination of etiology, co-occurring disabilities and disorders, and treatment options in relation to individuals with ASD.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 44030 AUTISM SPECTRUM DISORDERS OVER THE LIFESPAN  
3 Credit Hours 
Provides students with a review of the significant aspects related to educational, social, vocational transitions for children, adolescents, and young adults with ASD. Students learning skills necessary to evaluate and develop programs designed to meet the changing and long term needs of those with ASD.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 44089 VARIABLE TOPIC INTERNATIONAL EXPERIENCE IN SPEECH PATHOLOGY AND AUDIOLOGY (ELR)  
1-4 Credit Hours  
(Slashed with SPA 54089 and SPA 74089) A faculty-led study abroad experience that integrates traditional classroom learning with experiential activities and site visits outside the United States. International experience courses may have pre- and post-travel classroom study. Course activities may include, but are not limited to, classroom study, research, field work, internships and service learning.  
Prerequisite: None.  
Schedule Type: International Experience  
Contact Hours: 1-4 other  
Grade Mode: Standard Letter-IP  
Attributes: Experiential Learning Requirement  
SPA 44096 INDEPENDENT STUDY:SPEECH PATHOLOGY AND AUDIOLOGY  
2-6 Credit Hours  
(Repeatable for credit) Readings and/or research on problems approved by chairman of department in consultation with student's adviser and project director.  
Prerequisite: Speech pathology and audiology major; and graduate standing; and special approval.  
Schedule Type: Individual Investigation  
Contact Hours: 2-6 other  
Grade Mode: Standard Letter-IP  
SPA 44111 NEURAL PROCESSES  
3 Credit Hours  
(Slashed with SPA 54111) Anatomy and physiology of the nervous system underlying human neuromotor movements. Topics include: definition and fundamental concepts, afferent and efferent systems, cortical anatomy and function, cranial nerves, theories of brain function, and neural maturation and learning.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 44112 AGE-RELATED CHANGES IN COMMUNICATION  
3 Credit Hours 
Nonpathological age-related changes in speech, language and voice. Topics include structural changes in orofacial, laryngeal and respiratory mechanism; sequelae for speech, language and voice in the elderly; effects of age on swallowing; facilitating conversational interactions with elderly individuals.  
Prerequisite: Admittance into the speech pathology and audiology professional phase (minimum 3.000 overall GPA at 60 credits).  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 44130 COMMUNICATION DISORDERS OF THE AGING  
2 Credit Hours 
Hearing, speech and language disorders in geriatric population. Symptoms, causes and treatment: normal changes in hearing, language and speech accompanying aging process.  
Prerequisite: Senior standing.  
Schedule Type: Lecture  
Contact Hours: 2 lecture  
Grade Mode: Standard Letter  
SPA 44310 CLINICAL PROCEDURES IN SPEECH PATHOLOGY  
3 Credit Hours 
This course addresses evaluation and intervention procedures in the field of speech-language pathology across the lifespan.  
Prerequisite: Admittance into the admittance into the speech pathology and audiology professional phase (minimum 3.000 overall GPA at 60 credits) professional phase (minimum 3.000 overall GPA at 60 credits); and Senior standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 44311 CLINICAL PREPARATION IN SPEECH-LANGUAGE PATHOLOGY (ELR) (WIC)  
2 Credit Hours 
The course covers evaluation and intervention methodology for individuals with communication disorders and essential professional written communication skills.  
Prerequisite: Admittance into the speech pathology and audiology professional phase (3.000 overall GPA at 60 hours).  
Corequisite: SPA 44310.  
Schedule Type: Lecture  
Contact Hours: 2 lecture  
Grade Mode: Standard Letter  
Attributes: Experiential Learning Requirement, Writing Intensive Course
SPA 53402  AUDIOMETRY  3 Credit Hours
(Slashed with SPA 43402) Measurement of human hearing by puretone and speech audiometry# evaluation of middle ear function by immittance audiometry# screening techniques# pathologies of the conductive and sensorineural systems.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 53404  AURAL REHABILITATION  3 Credit Hours
Basic principles, variables and techniques for understanding, evaluating and improving receptive communication of hearing impaired individuals.
Prerequisite: Education of hearing impaired majors: SPA 43600; speech pathology and audiology majors: SPA 33101 and SPA 34102 and SPA 43402; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 54010  SOCIAL COMMUNICATION DEVELOPMENT AND DISORDERS IN AUTISM SPECTRUM DISORDERS  3 Credit Hours
Provides an understanding of the social, communication, and language needs of those with ASD from childhood through adulthood. Examines the cognitive, neurological, social, and environmental components influencing social, communicative functioning. Reviews contemporary assessment and intervention strategies. Explores the use of assistive technology to enhance social communicative functioning in those with ASD.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 54089  VARIABLE TOPIC INTERNATIONAL EXPERIENCE IN SPEECH PATHOLOGY AND AUDIOLOGY  1-4 Credit Hours
(Repeatable for credit) (Slashed with SPA 44089 and SPA 74089) A faculty-led study abroad experience that integrates traditional classroom learning with experiential activities and site visits outside the United States. International experience courses may have pre- and post-travel classroom study. Course activities may include, but are not limited to, classroom study, research, field work, internships and service learning.
Prerequisite: Graduate standing.
Schedule Type: International Experience
Contact Hours: 1-4 other
Grade Mode: Standard Letter-IP

SPA 54096  INDEPENDENT STUDY: SPEECH PATHOLOGY AND AUDIOLOGY  2-6 Credit Hours
(Repeatable for credit) Readings and/or research on problems approved by chair of department in consultation with student’s adviser and project director.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Individual Investigation
Contact Hours: 2-6 other
Grade Mode: Standard Letter

SPA 54110  SPEECH SCIENCE  3 Credit Hours
Consideration of physiological and acoustic characteristics of normal speech production and perception with implications for speech and hearing disorders.
Prerequisite: SPA 34102 and 34106; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 54111  NEURAL PROCESSES IN SPEECH AND LANGUAGE  3 Credit Hours
Anatomy and physiology of the nervous system underlying speech and language. Topics include: definition and fundamental concepts, afferent and efferent systems, cortical anatomy and function, cranial nerves, theories of brain function and neural maturation and learning.
Prerequisite: SPA 34103 or special approval of the instructor; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 54112  AGE-RELATED CHANGES IN COMMUNICATION  3 Credit Hours
Nonpathological age-related changes in speech, language and voice. Topics include: structural changes in orofacial, laryngeal and respiratory mechanisms; sequelae for speech, language and voice in the elderly; effects of age on swallowing; facilitating conversational interactions with elderly individuals.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 54130  COMMUNICATION DISORDERS OF THE AGING  2 Credit Hours
Hearing, speech and language disorders in geriatric population. Symptoms, causes and treatment: normal changes in hearing, language and speech accompanying aging process.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 63691  SEMINAR IN AUDIOLOGY  3 Credit Hours
(Repeatable for a maximum of 12 credit hours) Research, readings and discussion in any of these areas: aural rehabilitation, amplification, psychoacoustics, auditory physiology, medical audiology, hearing conservation.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter

SPA 64091  SEMINAR IN COMMUNICATION DISORDERS  1-3 Credit Hours
(Repeatable for a maximum of 9 credit hours) Special topics seminar for advanced students in speech-language pathology and audiology. Presentations and discussion of research projects are required.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter-S/U-IP

SPA 64093  WORKSHOP IN COMMUNICATION DISORDERS  1-3 Credit Hours
(Repeatable for credit) Variable topic workshop offered when need arises, either on or off campus to update training in a particular area of speech pathology.
Prerequisite: Graduate standing.
Schedule Type: Workshop
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory
SPA 64096 INDIVIDUAL INVESTIGATION: SPEECH PATHOLOGY AND AUDIOLOGY 1-6 Credit Hours
(Repeatable for a maximum of 12 credit hours) Independent study of topics to be selected in consultation with graduate faculty.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Individual Investigation
Contact Hours: 1-6 other
Grade Mode: Satisfactory/Unsatisfactory-IP

SPA 64098 RESEARCH 1-15 Credit Hours
(Repeatable for credit) Research or individual investigation for master's level graduate students.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Research
Contact Hours: 1-15 other
Grade Mode: Satisfactory/Unsatisfactory-IP

SPA 64191 SEMINAR: NEUROGENIC COMMUNICATION DISORDERS 1-3 Credit Hours
(Repeatable for a maximum of 9 credit hours) Reading and discussion seminar on swallowing disorders and the communication disorders relating to aphasia, apraxia, dysarthria, closed head injury, right brain damage and dementia.
Prerequisite: SPA 64301; and graduate standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-S/U-IP

SPA 64199 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: Standard Letter-S/U-IP

SPA 64291 SEMINAR: CHILD LANGUAGE 1-3 Credit Hours
(Repeatable for a maximum of 9 credit hours) Topics are selected for class investigation from the areas of child language development or disorders.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-S/U-IP

SPA 64299 THESIS II 2 Credit Hours
Thesis students must continue registration each semester until all degree requirements are met.
Prerequisite: SPA 64199; and graduate standing; and special approval.
Schedule Type: Masters Thesis
Contact Hours: 2 other
Grade Mode: Satisfactory/Unsatisfactory-IP

SPA 64301 APHASIA 3 Credit Hours
Neuroanatomy, etiologies, symptomatologies, evaluation procedures and treatment techniques relating to aphasia in adults.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64302 LANGUAGE ASSESSMENT AND INTERVENTION IN EARLY CHILDHOOD 3 Credit Hours
Methods of language assessment and intervention for infants, toddlers and preschoolers who are either at risk or diagnosed as presenting language delays or disabilities.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64303 DISORDERS OF ARTICULATION AND PHONOLOGY 3 Credit Hours
Diagnosis and remediation of children’s articulation and phonological disorders.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64304 ACQUIRED COGNITIVE COMMUNICATIVE IMPAIRMENTS 3 Credit Hours
Cognitive functions and etiologies, symptomatologies, evaluation and treatment methods related to adults with cognitive communicative disorders subsequent to right hemisphere damage, traumatic brain injury, dementia and related impairments.
Prerequisite: Speech language pathology major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64305 FLUENCY DISORDERS 3 Credit Hours
Nature, theories and their derived therapeutic approaches to the treatment of fluency disorders.
Prerequisite: Speech language pathology major; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64306 VOICE DISORDERS 2 Credit Hours
Normal aspects of voice production, etiology and symptomatology of voice disorders, diagnostic procedures and management techniques.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 64307 DYSARTHRIA 1 Credit Hour
Neuro-anatomy, etiologies, symptomatologies, evaluation procedures and treatment techniques relating to dysarthria in adults.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

SPA 64308 LANGUAGE ASSESSMENT AND INTERVENTION WITH SCHOOL-AGE POPULATIONS 3 Credit Hours
Theoretical background knowledge and practical assessment and intervention techniques for school-age children who demonstrate language disorders.
Prerequisite: SPA 34107; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
SPA 64309 AUTISM SPECTRUM DISORDERS: THEORY AND DIAGNOSIS 3 Credit Hours
(Cross-listed with SPA 74309 and SPED 64309) (Slashed with SPED 44309) Provides an overview of autism spectrum disorders (ASD). Examines the history, characteristics, and prevalence of ASD. The different theoretical models for understanding ASD are explored as they relate to assessment and intervention.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64310 AUTISM SPECTRUM DISORDERS: LIFESPAN INTERVENTIONS 3 Credit Hours
(Cross-listed with SPED 64310) (Slashed with SPA 74310) Provides students with a review of the significant aspects related to educational, social, vocational transitions for children, adolescents, and young adults with autism spectrum disorders (ASD). Students learn skills necessary to evaluate and develop programs designed to meet the changing and long term needs of individuals with ASD.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64311 AUTISM SPECTRUM DISORDERS 2 Credit Hours
Provides an overview of the social, communication, and language needs of those with autism spectrum disorder. Reviews contemporary assessment and intervention strategies. This course is designed to prepare preservice speech language pathologists with foundational information about autism spectrum disorders.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 64312 MOTOR SPEECH DISORDERS IN CHILDREN AND ADULTS 3 Credit Hours
(Slashed with SPA 74312) Anatomic and physiologic bases of congenital and acquired motor speech disorders. Etiology, symptomatology, evaluation and treatment techniques related to variety of motor speech disorders in children and adults.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64354 PEDIATRIC MEDICAL ISSUES 2 Credit Hours
Nature and rehabilitative procedures for speech-language pathology practice with pediatric medical issues, including dysphagia, maxillofacial anomalies, and resonance disorders.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 64356 ADULT DYSPHAGIA 3 Credit Hours
(Slashed with SPA 74356) Anatomy, etiologies, symptomatologies, evaluation procedures and treatment techniques relating to swallowing disorders in adults.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64391 SEMINAR:SEMINAR: ARTICULATION AND PHONOLOGY 1-3 Credit Hours
(Repeatable for credit)A revolving topics seminar on theoretical and/or clinical issues related to neurogenic/organic speech and/or language disorders.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory-IP

SPA 64491 SEMINAR:ORGANIC SPEECH DISORDERS 1-3 Credit Hours
(Repeatable for credit) Supervised clinical practice with patients who have speech, hearing or language problems.
Prerequisite: Graduate standing.
Schedule Type: Practical Experience
Contact Hours: 1-12 other
Grade Mode: Standard Letter-IP

SPA 64500 NORMAL LANGUAGE PROCESSES 3 Credit Hours
Examines current theory and research specific to normal human development from birth to age 21. Significant neurological, cognitive, social, linguistic, emotional, literacy, and motor developmental changes are explored.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64501 SOCIAL COMMUNICATION ASPECTS OF AUTISM SPECTRUM DISORDER 3 Credit Hours
(Slashed with SPA 74501) Provides an understanding of the social, communication, and language needs of those with ASD from childhood through adulthood. Examines the cognitive, neurological, social, and environmental components influencing social, communicative functioning. Reviews contemporary assessment and intervention strategies. Explores use of assistive technology to enhance social communicative functioning in those with ASD.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64504 ADVANCED SPEECH AND VOICE SCIENCE 3 Credit Hours
Application of normal and disordered speech, swallowing, and voice production and perception; survey of literature; theories of production and perception.
Prerequisite: SPA 54110; and graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
SPA 64525  PUBLIC SCHOOL TECHNIQUES IN COMMUNICATION DISORDERS:INQUIRY INTO PROFESSIONAL PRACTICE  3 Credit Hours
Inquiry into speech pathology and audiology as practiced in the school setting; emphasis on speech language pathologist or audiologist as disciplined investigator. Combination of themes including organizational procedures, therapy techniques, collaboration, ethics and research.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64591  SEMINAR:FLUENCY DISORDERS  1-3 Credit Hours
(Repeatable for a maximum of 9 credit hours) Seminar dealing with the theoretical and applied aspects of fluency disorders in children and adults.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-S/U-IP

SPA 64592  STUDENT TEACHING IN SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY  8 Credit Hours
Inquiry into speech pathology and audiology as practiced in the school setting; emphasis on speech language pathologist or audiologist as disciplined investigator. Combination of themes including organization, procedures, therapy techniques, collaboration, ethics and research. Students are required to complete Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) background checks and submit the results to authorized personnel at their assigned "school/agency" before the first day of the semester in which student teaching/ internship will take place. Training must be presented to the campus office of clinical experience or designated faculty/staff at college of applied and technical studies’ campuses as prerequisite for student teaching; and special approval.
Prerequisite: Official valid certification of child safety training, approved basic life support and ALICE.
Corequisite: SPA 64525.
Schedule Type: Practical Experience
Contact Hours: 40 other
Grade Mode: Satisfactory/Unsatisfactory

SPA 64600  RESEARCH METHODS IN SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY  3 Credit Hours
Methodologies for collecting, analyzing and interpreting data for clinical and research purposes in speech language pathology and audiology.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 64691  SEMINAR:VOICE DISORDERS  1-3 Credit Hours
(Repeatable for a maximum of 9 credit hours) Current literature review and discussions dealing with varying topics ranging from normal aspects of phonation in various populations to disorders of voice and their diagnosis and treatment.
Prerequisite: SPA 6/74306; and graduate standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-S/U-IP

SPA 64791  SEMINAR:SPEECH SCIENCE  1-3 Credit Hours
(Repeatable for a maximum of 9 credit hours) Consideration of selected topics related to physiological, anatomical and acoustic aspects of speech production and perception.
Prerequisite: SPA 4/54110 and SPA 6/74504; graduate standing.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter-S/U-IP

SPA 64891  SEMINAR:COMMUNICATION MODALITIES AND ASSISTIVE TECHNOLOGY  3 Credit Hours
(Repeatable for credit) Nature, etiologies and correlates of speech/ language communication disorders and differences that may indicate a need for a multi-modal communication approach. Includes an emphasis on assistive technology for communication, language, learning and literacy.
Prerequisite: SPA 64500 and SPA 64302; and graduate standing.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter

SPA 64991  SEMINAR:CRITICAL TOPICS IN SPEECH LANGUAGE  1-3 Credit Hours
(Repeatable for credit) Principles and methods of assessment and intervention for various topics in speech-language pathology from critical thinking and case-study framework.
Prerequisite: Speech pathology and audiology major only; and graduate standing; and instructor special approval.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-S/U-IP

SPA 65092  CLINICAL PRACTICUM I IN SPEECH LANGUAGE PATHOLOGY  2-3 Credit Hours
(Slashed with SPA 75092) (Repeatable twice for credit) Supervised, introductory clinical experience in assessment and intervention with populations within the Scope of Practice of speech language pathology per the current practice policy of the American Speech Language Hearing Association. To facilitate clinical competency and accrual of required clinical clock hours per current ASHA standards, students are expected to enroll in Clinical Practicum each semester that they are not enrolled in Externship or Student Teaching. A grade of B or better in this course is required for permission to register in SPA 65192.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 8-12 other
Grade Mode: Standard Letter-IP

SPA 65192  CLINICAL PRACTICUM II IN SPEECH AND LANGUAGE PATHOLOGY  2-3 Credit Hours
(Slashed with SPA 75192) (Repeatable twice for credit) This course includes additional supervised, hands on clinical experience with clients in on campus clinics. Student clinicians are provided with opportunities to demonstrate increased independence in clinical decision making and performance. Practicum requirements may include attendance at a weekly Clinical Colloquium. A grade of B or better in this course is required for registration in SPA 65292.
Prerequisite: SPA 65092 with a minimum C grade; and graduate standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 8-12 other
Grade Mode: Standard Letter-IP
SPA 65292  CLINICAL PRACTICUM III IN SPEECH LANGUAGE PATHOLOGY  2-3 Credit Hours
(Slashed with SPA 75292) (Repeatable twice for credit) Includes additional supervised, hands on clinical experience with clients in on campus clinics and or off-campus, supervised clinical experience in sites such as schools or long term care facilities. Students clinicians are provided with opportunities to demonstrate levels of independence in clinical decision making and performance that reflect readiness for Externship or Student Teaching experiences. Practicum requirements may include attendance at a weekly Clinical Colloquium. A grade of B or better in this course is required for permission to register in the following courses: Clinical Practicum IV in Speech Language Pathology SPA 65392, Externship in Speech Language Pathology: Adult SPA 65492, Externship in Speech Language Pathology: Pediatric SPA 65592, Student Teaching in Speech Language Pathology SPA 64528.
Prerequisite: SPA 65192 with a minimum B grade; and graduate standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 8-12 other
Grade Mode: Standard Letter-IP

SPA 65392  CLINICAL PRACTICUM IV IN SPEECH LANGUAGE PATHOLOGY  2-3 Credit Hours
(Slashed with SPA 75392) (Repeatable twice for credit) This supervised, hands on clinical experience with clients in on campus clinics or off campus sites is for second year graduate students who are not yet scheduled for externship or student teaching. Students clinicians are provided with opportunities to demonstrate levels of independence in clinical decision making and performance that are reflective of readiness for externship or student teaching experiences. A grade of B or better in this course is required for permission to register in the following courses: Externship in speech language pathology: adult SPA 65492, externship in speech language pathology: pediatric SPA 65592, student teaching in speech language pathology SPA 64528.
Prerequisite: SPA 65292 with a minimum B grade; and graduate standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 8-12 other
Grade Mode: Standard Letter-IP

SPA 65492  EXTERNSHIP IN SPEECH LANGUAGE PATHOLOGY: ADULT  4-8 Credit Hours
(Slashed with SPA 75492) (Repeatable once for credit) Considered a culminating clinical experience. Includes supervised, hands-on clinical experience with patients in adult care settings such as hospitals, rehabilitation and long term care facilities.
Prerequisite: SPA 65292 or SPA 65392 with a minimum B grade; and graduate standing; and permission.
Schedule Type: Practical Experience
Contact Hours: 20-40 other
Grade Mode: Standard Letter-IP

SPA 65592  EXTERNSHIP IN SPEECH LANGUAGE PATHOLOGY: PEDIATRIC  4-8 Credit Hours
(Slashed with SPA 75592) (Repeatable once for credit) Considered a culminating clinical experience. Students may choose this course as an alternative to student teaching in speech-language pathology. Includes supervised, hands-on clinical experience with children and adolescents in pediatric care settings such as hospitals and other habilitation and rehabilitation facilities.
Prerequisite: SPA 65292 or SPA 65392 with a minimum B grade; and graduate standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 20-40 other
Grade Mode: Standard Letter-IP

SPA 70192  GRADUATE AUDIOLOGIST I  3 Credit Hours
Supervised clinical practicum in audiology which encompasses audiologic assessments and audiologic habilitation.
Prerequisite: SPA 70792; and doctoral standing.
Schedule Type: Practical Experience
Contact Hours: 9 other
Grade Mode: Standard Letter

SPA 70292  GRADUATE AUDIOLOGIST II  3 Credit Hours
Supervised clinical practicum in audiology requiring the independent performance of audiologic assessment procedures, audiologic rehabilitation and vestibular assessment and rehabilitation.
Prerequisite: SPA 70192; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 9 other
Grade Mode: Standard Letter

SPA 70392  GRADUATE AUDIOLOGIST III  6 Credit Hours
Supervised clinical practicum in audiology which encompasses the entire range of audiologic procedures including neurophysiological based procedures.
Prerequisite: Passing score of 600 or higher on the PRAXIS examination; and SPA 70292; and doctoral standing; and special approval.
Corequisite: SPA 70791.
Schedule Type: Practical Experience
Contact Hours: 18 other
Grade Mode: Standard Letter

SPA 70492  GRADUATE AUDIOLOGIST IV  8 Credit Hours
Full-time clinical practicum in audiology at an off-campus site. Students taking the course must have successfully completed the Praxis Examination.
Prerequisite: SPA 70392; and doctoral standing.
Corequisite: SPA 70791.
Schedule Type: Practical Experience
Contact Hours: 24 other
Grade Mode: Standard Letter

SPA 70592  GRADUATE AUDIOLOGIST V  8 Credit Hours
Full-time external audiology clinical placement with a licensed and appropriately credentialed preceptor who provides clinical teaching. This experience provides a capstone learning experience in the full scope of practice in the profession of audiology.
Prerequisite: SPA 70492; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 24 other
Grade Mode: Standard Letter
SPA 70615  CENTRAL AUDITORY PROCESSING EVALUATION AND MANAGEMENT  2 Credit Hours
Study of audiologic evaluation and (re)habilitation procedures for people central auditory processing disorders.
Prerequisite: SPA 70705 and SPA 70706; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 70616  HEARING AID FITTING AND SELECTION ACROSS THE LIFESPAN  4 Credit Hours
Examination of the theory and practice of fitting hearing aids across the lifespan. Emphasis on special clinical procedures, research needs and evolving technology in hearing instruments.
Prerequisite: Admission to the audiology major; and SPA 70713; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

SPA 70618  IMPLANTABLE TECHNOLOGY  4 Credit Hours
Study of implantable devices in children and adults including equipment, candidacy, programming, fitting, and troubleshooting.
Prerequisite: Admission to the audiology major; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

SPA 70627  MULTICULTURAL ISSUES IN AUDIOLOGY  2 Credit Hours
An introduction to varying cultures and the audiologist's roles and responsibilities in planning treatment with a member of these cultures.
Prerequisite: Admission to the audiology major; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 70630  PRACTICE MANAGEMENT IN AUDIOLOGY  3 Credit Hours
Study of issues which impact the management of audiological practices, including establishing a private practice, reimbursement, marketing, record keeping and professional liability.
Prerequisite: Admission to the audiology major; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70691  SEMINAR IN AUDIOLOGY  2 Credit Hours
(Repeatable for credit) Selected current topics in audiology with emphasis on review of current literature.
Prerequisite: Admission to the AUD program or special approval of the instructor; and doctoral standing.
Schedule Type: Seminar
Contact Hours: 2 other
Grade Mode: Standard Letter

SPA 70692  INTERNSHIP IN AUDIOLOGY  2 Credit Hours
(Repeatable for credit) Supervised practicum in audiology requiring the independent performance of basic audiologic procedures, including hearing aid management.
Prerequisite: SPA 70744; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 18 other
Grade Mode: Standard Letter

SPA 70701  BASIC AND APPLIED PHYSICAL ACOUSTICS FOR AUDIOLOGY  4 Credit Hours
Study of physical acoustics, basic electricity and electronics, as well as principles, methodology, calibration and maintenance of audiologic equipment.
Prerequisite: Admission to the AUD program or special approval of instructor; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

SPA 70702  ANATOMY AND PHYSIOLOGY OF PERIPHERAL AUDITORY AND VESTIBULAR SYSTEMS  4 Credit Hours
A study of the anatomy, biophysics and physiology of the auditory and vestibular systems.
Prerequisite: Admission to the Audiology program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

SPA 70703  SPEECH ACOUSTICS AND SPEECH PERCEPTION  2 Credit Hours
Study of the nomenclature, acoustics, measurement, and perception of speech sounds and their impact and interpretation in audiology.
Prerequisite: Admission to the audiology program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 70704  CRITICAL ANALYSIS OF RESEARCH IN AUDIOLOGY  2 Credit Hours
General introduction to the research process with an emphasis on acquiring a reading knowledge of research and an ability to evaluate research.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 70705  AUDITORY DISORDERS  2 Credit Hours
Study of conditions/diseases that can affect the auditory system.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 70706  ANATOMY AND PHYSIOLOGY UNDERLYING NEUROOTOLOGY  4 Credit Hours
An in-depth study of the anatomy and physiology of the central auditory and vestibular nervous system (includes 1 hour lab.)
Prerequisite: SPA 70702; and doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 4 other
Grade Mode: Standard Letter

SPA 70707  PSYCHOACOUSTICS  3 Credit Hours
Study of the principles, procedures and research of psychoacoustics; the relationships between the physical dimensions of auditory stimuli and the resultant perceptual experience with normal and impaired hearing.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
SPA 70708 CRITICAL ANALYSIS OF RESEARCH 2 Credit Hours
Development of a reading knowledge of research and the ability to evaluate the quality of research studies.
Prerequisite: SPA 70704; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70709 AUDIOLOGIC ASSESSMENT 3 Credit Hours
Theoretical basis for tests underlying basic audiologic assessments.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70710 INDUSTRY AND COMMUNITY NOISE 3 Credit Hours
Theoretical principles of noise measurement; etiology of noise-induced hearing loss and acoustic trauma; industrial hearing conservation programs; occupational safety and health act; community and recreational noise evaluation and management.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70711 SPEECH-LANGUAGE PATHOLOGY FOR THE AUDIOLOGIST 3 Credit Hours
Examination of normal and abnormal aspects of speech and language including their impact on auditory function and testing.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70712 DIAGNOSIS OF AUDITORY DISORDERS 3 Credit Hours
Underlying theory and principles of administration and interpretation of site-of-lesion tests.
Prerequisite: SPA 70709; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70713 HEARING AID TECHNOLOGY 4 Credit Hours
Study of amplification systems for the hearing impaired.
Prerequisite: SPA 70701; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

SPA 70714 GERONTOLOGICAL ISSUES IN AUDIOLOGY 3 Credit Hours
Physiological, psychological and sociological theories of aging with a focus on the etiology, symptomatology, assessment and rehabilitation of older adults with hearing impairments.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70715 CENTRAL AUDITORY PROCESSING: EVALUATION AND MANAGEMENT 3 Credit Hours
Study of audiologic evaluation and habilitation/rehabilitation procedures for people having central auditory disabilities.
Prerequisite: SPA 70705 and SPA 70706; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70716 ADULT HEARING-AID FITTING AND SELECTION 3 Credit Hours
Examination of the theory and practice of fitting hearing aids. Emphasis on special clinical procedures research needs and evolving technology in hearing instruments. Includes a one hour lab.
Prerequisite: SPA 70713; and doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

SPA 70717 PEDIATRIC AUDIOLOGY 3 Credit Hours
Study of audiologic diagnostic and auditory habilitative protocols for the birth to 3 population. Both assessment and management strategies will be emphasized.
Prerequisite: SPA 70709; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70718 COCHLEAR IMPLANTS 2 Credit Hours
Study of cochlear implants in children and adults including equipment, candidacy, mapping and overview of (re)habilitation.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 70719 COUNSELING IN AUDIOLOGY 3 Credit Hours
Focus on interviewing, counseling and interacting with individuals with hearing impairments their families and significant others.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70720 PEDIATRIC AMPLIFICATIONS 3 Credit Hours
The focus of study is on amplification systems and fitting techniques for the pediatric population.
Prerequisite: SPA 70713 and SPA 70716 and SPA 70717; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70721 EVALUATION AND MANAGEMENT OF BALANCE DISORDERS 3 Credit Hours
Study of the balance mechanism; differential diagnostic assessment of balance disorders includingelectronystagmography, posturography and rotational testing; rehabilitation of the balance disordered patient (1 hour lab included.)
Prerequisite: Admission to the AUD program or special approval of instructor; and doctoral standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter
SPA 70722 AUDILOGIC MANAGEMENT OF THE SCHOOL-AGE CHILD 3 Credit Hours
Focus on educational audiology. Features delivery of audiolgic services designed to access the school environment for children ages 4-21.
Prerequisite: SPA 70717; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70723 AUDIOLOGIC TREATMENT OF ADULTS 3 Credit Hours
Study of current methodologies employed in the audiolgic rehabilitation of adults with hearing impairments. Implementation of remedial strategies is emphasized.
Prerequisite: SPA 70716 or doctoral standing; and special approval of instructor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70724 HISTORY OF AUDIOLOGY 1 Credit Hour
An examination of the history of deafness/hearing impairment and the profession of audiology.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

SPA 70725 MEDICAL MANAGEMENT OF AUDITORY DISORDERS 2 Credit Hours
A study of the multidisciplinary approach to medical/surgical management of patients with auditory and vestibular disorders.
Prerequisite: SPA 70712; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 70726 ELECTROPHYSIOLOGICAL TECHNIQUES IN AUDIOLOGY 3 Credit Hours
Study of evoked responses used in diagnostic audiology, including ABR, MLR, ECHOCHG, ENOG, ALR, P300, VER, and SSER.
Prerequisite: SPA 70706; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

SPA 70727 CULTURAL ISSUES IN DEAFNESS 2 Credit Hours
An introduction to deaf culture and the audiologist's roles and responsibilities in planning treatment with a member of the deaf community.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

SPA 70730 PRACTICE MANAGEMENT IN AUDIOLOGY 4 Credit Hours
Study of issues which impact the management of audiological practices, including establishing a private practice, reimbursement, marketing, record keeping and professional liability.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

SPA 70732 AUDIOLOGIC TREATMENT ACROSS THE LIFESPAN 4 Credit Hours
Study of current methodologies employed in the audiolgic treatment of people with hearing loss across the lifespan. Implementation of remedial strategies is emphasized.
Prerequisite: Admission to the audiology major; and SPA 70616; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

SPA 70733 ADVANCED ELECTROPHYSIOLOGIC AND VESTIBULAR MEASURES 4 Credit Hours
Advanced considerations in balance function assessment and management and in the study of evoked responses used in diagnostic audiology.
Prerequisite: Admission into the audiology program; and SPA 70726 and SPA 70721; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

SPA 70734 PRINCIPLES IN PRECEPTING 1 Credit Hour
Examination of the concepts and practices essential to the preceptor role. Emphasis on professional standards, adult learning theories, communication styles, ethical principles, and the multiple roles of a preceptor (educator, role model, mentor, facilitator and evaluator).
Prerequisite: Admission into the audiology major; and SPA 70748; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

SPA 70741 DIRECTED OBSERVATION IN AUDIOLOGY I 1 Credit Hour
Introduction to clinical practicum in audiology. Directed observation of clinical practice including audiological diagnosis and audiological rehabilitation are required.
Prerequisite: Admission to the AUD program or special approval of the instructor; and doctoral standing.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

SPA 70742 DIRECTED OBSERVATION IN AUDIOLOGY II 1 Credit Hour
Introduction to clinical practicum in audiology. Directed observation of clinical practice including audiological diagnosis and audiological rehabilitation are required.
Prerequisite: Admission to the AUD program; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 1 other
Grade Mode: Standard Letter

SPA 70753 LABORATORY FOR ELECTROPHYSIOLOGICAL TECHNIQUES IN AUDIOLOGY 1 Credit Hour
Laboratory exercises for the assessment of auditory disorders including electrocochleography, the auditory brainstem response and auditory steady state responses.
Prerequisite: Audiology major; and doctoral standing.
Corequisite: SPA 70726.
Schedule Type: Laboratory
Contact Hours: 3 lab
Grade Mode: Standard Letter
SPA 70754 LABORATORY FOR EVALUATION AND MANAGEMENT OF BALANCE DISORDERS 1 Credit Hour
Laboratory exercises for the assessment of balance disorders including videonystagmography, posturography and informal evaluations; approaches for the rehabilitation and treatment of the balance disordered patient.
Prerequisite: Audiology major; and doctoral standing.
Corequisite: SPA 70721.
Schedule Type: Laboratory
Contact Hours: 3 lab
Grade Mode: Standard Letter

SPA 70755 LABORATORY FOR ADVANCED ELECTROPHYSIOLOGIC AND VESTIBULAR MEASURES 1 Credit Hour
Laboratory exercises for the assessment, management and treatment of auditory and vestibular disorders including early, middle and late auditory evoked potentials and advanced vestibular measures.
Prerequisite: Audiology major; and doctoral standing.
Corequisite: SPA 70733.
Schedule Type: Laboratory
Contact Hours: 3 lab
Grade Mode: Standard Letter

SPA 70791 FOURTH YEAR SEMINAR 1 Credit Hour
(Repeatable for credit) In-depth consideration of topics/issues in the practice of audiology with emphasis upon issues related to clinical rotation.
Prerequisite: Doctoral standing; and special approval.
Corequisite: SPA 70750 or SPA 70751.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Standard Letter

SPA 70792 INTERNSHIP IN AUDIOLOGY 2 Credit Hours
(Repeatable for credit) Supervised clinical practicum in audiology requiring the independent performance of diagnostic, hearing aids and audioligic rehabilitation procedures. Students are required to complete Bureau of Criminal Investigation and Identification (BCII) and Federal Bureau of Investigation (FBI) background checks and submit the results to authorized personnel at their assigned "school/agency" before the first day of the semester in which student teaching/internship will take place.
Prerequisite: SPA 70692; and doctoral standing.
Schedule Type: Practical Experience
Contact Hours: 18 other
Grade Mode: Standard Letter

SPA 70798 RESEARCH PROJECT IN AUDIOLOGY 3 Credit Hours
(Repeatable for credit) Completion of a doctoral research project including data collection, analysis write-up and oral presentation.
Prerequisite: Admission to the AUD program; and doctoral standing.
Schedule Type: Research
Contact Hours: 3 other
Grade Mode: Standard Letter-IP

SPA 70892 INTERNSHIP III 2 Credit Hours
Clinical practicum in audiology during which students perform discrete tasks under supervision.
Prerequisite: Admission to the audiology major; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 18 other
Grade Mode: Standard Letter

SPA 70992 INTERNSHIP IV 2 Credit Hours
Clinical practicum in audiology during which students perform discrete tasks under supervision.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 18 other
Grade Mode: Standard Letter

SPA 73691 SEMINAR IN AUDIOLOGY 3 Credit Hours
(Repeatable for a maximum of 12 credit hours) Research, readings and discussion in any of these areas: aural rehabilitation, amplification, psychoacoustics, auditory physiology, medical audiology, hearing conservation.
Prerequisite: Doctoral standing.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter

SPA 74089 VARIABLE TOPIC INTERNATIONAL EXPERIENCE IN SPEECH PATHOLOGY AND AUDIOLOGY 1-4 Credit Hours
(Repeatable for credit) (Slashed with SPA 44089 and SPA 54089) A faculty-led study abroad experience that integrates traditional classroom learning with experiential activities and site visits outside the United States. International experience courses may have pre- and post-travel classroom study. Course activities may include, but are not limited to, classroom study, research, field work, internships and service learning.
Prerequisite: Doctoral standing.
Schedule Type: International Experience
Contact Hours: 1-4 other
Grade Mode: Standard Letter-IP

SPA 74093 WORKSHOP IN COMMUNICATION DISORDERS 1-3 Credit Hours
(Repeatable for credit) Variable topic workshop offered when need arises, either on or off campus to update training in a particular area of speech pathology.
Prerequisite: Doctoral standing.
Schedule Type: Workshop
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory

SPA 74191 SEMINAR:NEUROGENIC COMMUNICATION DISORDERS 1-3 Credit Hours
(Repeatable for a maximum of 9 credit hours) Reading and discussion seminar on swallowing disorders and the communication disorders relating to aphasia, apraxia, dysarthria, closed head injury, right brain damage and dementia.
Prerequisite: SPA 64301; and doctoral standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-S/U-IP

SPA 74291 SEMINAR:CHILD LANGUAGE 1-3 Credit Hours
(Repeatable for a maximum of 9 credit hours) Topics are selected for class investigation from the areas of child language, development or disorders.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-S/U-IP
SPA 74301 APHASIA 3 Credit Hours  
Neuroanatomy, etiologies, symptomatologies, evaluation procedures and treatment techniques relating to aphasia in adults.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74302 LANGUAGE ASSESSMENT AND INTERVENTION IN EARLY CHILDHOOD 3 Credit Hours  
Methods of language assessment and intervention for infants, toddlers and preschoolers who are either at risk or diagnosed as presenting language delays or disabilities.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74303 DISORDERS OF ARTICULATION AND PHONOLOGY 3 Credit Hours  
Diagnosis and remediation of children's articulation and phonological disorders.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74304 ACQUIRED COGNITIVE COMMUNICATIVE IMPAIRMENTS 3 Credit Hours  
Cognitive functions and etiologies, symptomatologies, evaluation and treatment methods related to adults with cognitive communicative disorders subsequent to right hemisphere damage, traumatic brain injury, dementia and related impairments.  
Prerequisite: Speech language pathology major; and doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74305 FLUENCY DISORDERS 3 Credit Hours  
Nature, theories and their derived approaches to the assessment and treatment of fluency disorders.  
Prerequisite: Speech language pathology major; and doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74306 VOICE DISORDERS 2 Credit Hours  
Normal aspects of voice production, etiology and symptomatology of voice disorders, diagnostic procedures and management techniques.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 2 lecture  
Grade Mode: Standard Letter  
SPA 74307 DYSPHAGIA 1 Credit Hour  
Neuro-anatomy, etiologies, symptomatologies, evaluation procedures and treatment techniques relating to dysarthria in adults.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 1 lecture  
Grade Mode: Standard Letter  
SPA 74308 LANGUAGE ASSESSMENT AND INTERVENTION WITH SCHOOL-AGE POPULATIONS 3 Credit Hours  
Theoretical background knowledge and practical assessment and intervention techniques for school-age children who demonstrate language disorders.  
Prerequisite: SPA 34107; and doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74309 AUTISM SPECTRUM DISORDERS: THEORY AND DIAGNOSIS 3 Credit Hours  
(Cross-listed with SPED 44309 and SPED 64309) (Slashed with SPA 64309) Provides an overview of Autism Spectrum Disorders (ASD). Examines the history, characteristics, and prevalence of ASD. Assessment and intervention models are explored as they relate to various theoretical models for understanding ASD.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74310 AUTISM SPECTRUM DISORDERS: LIFESPAN INTERVENTIONS 3 Credit Hours  
(Cross-listed with SPA 64310) (Slashed with SPED 64310) Provides students with a review of the significant aspects related to educational, social, vocational transitions for children, adolescents, and young adults with autism spectrum disorders (ASD). Students learn skills necessary to evaluate and develop programs designed to meet the changing and long-term needs of individuals with ASD.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74312 MOTOR SPEECH DISORDERS IN CHILDREN AND ADULTS 3 Credit Hours  
(Slashed with SPA 64312) Anatomic and physiologic bases of congenital and acquired motor speech disorders. Etiology, symptomatology, evaluation and treatment techniques related to a variety of motor speech disorders in children and adults.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  
SPA 74354 PEDIATRIC MEDICAL ISSUES 2 Credit Hours  
Nature and rehabilitative procedures for speech-language pathology practice with pediatric medical issues, including dysphagia and maxillofacial anomalies and resonance disorders.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 2 lecture  
Grade Mode: Standard Letter  
SPA 74356 ADULT DYSPHAGIA 3 Credit Hours  
Anatomy, etiologies, symptomatologies, evaluation procedures and treatment techniques relating to swallowing disorders in adults.  
Prerequisite: Doctoral standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter
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<td>Doctoral standing; and special approval.</td>
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SPA 74991  SEMINAR:COMMUNICATION MODALITIES AND ASSISTIVE TECHNOLOGY  3 Credit Hours
(Repeatable for credit) Nature, etiologies and correlates of speech language communication disorders and differences that may indicate a need for a multi-modal communication approach. Includes an emphasis on assistive technology for communication language, learning and literacy.
Prerequisite: Speech language pathology major; and doctoral standing.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter

SPA 75092  CLINICAL PRACTICUM I IN SPEECH LANGUAGE PATHOLOGY  2-3 Credit Hours
(Slashed with SPA 65092) (Repeatable for credit) Supervised, introductory clinical experience in assessment and intervention with populations within the scope of practice of speech language pathology per the current practice policy of the american speech language hearing association. To facilitate clinical competency and accrual of required clinical clock hours per current ASHA standards, students are expected to enroll in clinical practicum each semester that they are not enrolled in externship or student teaching. A grade of B or better in this course is required for permission to register in CLIN PR I SPE LANG PATH-SPA 65192.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 8-12 other
Grade Mode: Standard Letter-IP

SPA 75192  CLINICAL PRACTICUM II IN SPEECH LANGUAGE PATHOLOGY  2-3 Credit Hours
(Repeatable for credit) Principles and methods of assessment and intervention for various topics in speech-language pathology from critical thinking and case-study framework.
Prerequisite: Speech pathology and audiology major; and doctoral standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter-S/U-IP

SPA 75292  CLINICAL PRACTICUM III IN SPEECH LANGUAGE PATHOLOGY  2-3 Credit Hours
(Repeatable with SPA 65292) (Repeatable twice for credit) Includes additional supervised, hands-on clinical experience with clients in on campus clinics and or off campus, supervised clinical experience in sites such as schools or long-term care facilities. Students clinicians are provided with opportunities to demonstrate levels of independence in clinical decision-making and performance that reflect readiness for externship or student teaching experiences. Practicum requirements may include attendance at a weekly clinical colloquium. A grade of B or better in this course is required for permission to register in the following courses: clinical practicum IV in speech language pathology SPA 75392, externship in speech language pathology: adult SPA 75492, externship in speech language pathology: pediatric SPA 75592, student teaching in speech language pathology SPA 64528.
Prerequisite: SPA 75192 with a minimum B grade; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 8-12 other
Grade Mode: Standard Letter-IP

SPA 75392  CLINICAL PRACTICUM IV IN SPEECH LANGUAGE PATHOLOGY  2-3 Credit Hours
(Repeatable for credit) This supervised, hands on clinical experience with clients in on campus clinics or off campus sites is for second year graduate students who are not yet scheduled for externship or student teaching. Students clinicians are provided with opportunities to demonstrate levels of independence in clinical decision making and performance that are reflective of readiness for externship or student teaching experiences. A grade of B or better in this course is required for permission to register in the following courses: externship in speech language pathology: adult SPA 75492, externship in speech language pathology: pediatric SPA 75592, student teaching in speech language pathology SPA 64528.
Prerequisite: SPA 75292 with a minimum B grade; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 8-12 other
Grade Mode: Standard Letter-IP

SPA 75492  EXTERNSHIP IN SPEECH LANGUAGE PATHOLOGY: ADULT  4-8 Credit Hours
(Cross-listed with SPA 65492) (Repeatable once for credit) Considered a culminating clinical experience. Includes supervised, hands on clinical experience with patients in adult care settings such as hospitals, rehabilitation and long term care facilities.
Prerequisite: SPA 75292 or SPA 75392 with a minimum B grade; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 20-40 other
Grade Mode: Standard Letter-IP

SPA 75592  EXTERNSHIP IN SPEECH LANGUAGE PATHOLOGY: PEDIATRIC  4-8 Credit Hours
(Cross-listed with SPA 65592) (Repeatable once for credit) Considered a culminating clinical experience. Includes supervised, hands on clinical experience with patients in adult care settings such as hospitals, rehabilitation and long term care facilities.
Prerequisite: SPA 75292 or SPA 75392 with a minimum B grade; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 20-40 other
Grade Mode: Standard Letter-IP
SPA 75592  EXTERNSHIP IN SPEECH LANGUAGE PATHOLOGY: PEDIATRIC  4-8 Credit Hours
(Slashed with SPA 65592) (Repeatable once for credit) Considered a culminating clinical experience. Students may choose this course as an alternative to Student Teaching in Speech Language Pathology. Includes supervised, hands on clinical experience with children and adolescents in pediatric care settings such as hospitals and other habilitation and rehabilitation facilities.
Prerequisite: SPA 75292 or SPA 75392 with a minimum B grade; and doctoral standing; and special approval.
Schedule Type: Practical Experience
Contact Hours: 20-40 other
Grade Mode: Standard Letter

SPA 75792  INTERNSHIP I  1 Credit Hour
Clinical practicum in audiology during which students perform discrete tasks under supervision.
Prerequisite: Admission to the audiology major; and doctoral standing; and special approval.
Corequisite: SPA 70709.
Schedule Type: Practical Experience
Contact Hours: 18 other
Grade Mode: Standard Letter

SPA 76792  INTERNSHIP II  1 Credit Hour
Supervised clinical practicum in audiology during which students will perform discrete clinical tasks while under supervision.
Prerequisite: Admission to the audiology major; and SPA 75792; and doctoral standing and special approval.
Schedule Type: Practical Experience
Contact Hours: 18 other
Grade Mode: Standard Letter

SPA 84091  SEMINAR IN COMMUNICATION DISORDERS  2 Credit Hours
(Repeatable for a maximum 9 credit hours)Special topics seminar for advanced students in speech-language pathology and audiology. Presentations and discussion of research projects are required.
Prerequisite: Doctoral standing.
Schedule Type: Seminar
Contact Hours: 2 other
Grade Mode: Standard Letter

SPA 84096  INDIVIDUAL INVESTIGATION-SPEECH PATHOLOGY AND AUDIOLOGY  1-6 Credit Hours
(Repeatable for a maximum of 12 credit hours)Independent study of topics to be selected in consultation with graduate faculty.
Prerequisite: Doctoral standing.
Schedule Type: Individual Investigation
Contact Hours: 1-6 other
Grade Mode: Satisfactory/Unsatisfactory

SPA 84098  RESEARCH  1-15 Credit Hours
(Repeatable for credit)Research opportunities for doctoral students who have not yet passed their candidacy examination.
Prerequisite: Doctoral standing; and special approval.
Schedule Type: Research
Contact Hours: 1-15 other
Grade Mode: Standard Letter-S/U-IP

SPA 84199  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

SPA 84299  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: SPA 84199; and doctoral standing; and special approval.
Schedule Type: Dissertation
Contact Hours: 15 other
Grade Mode: Satisfactory/Unsatisfactory