

# 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

- 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.
- Communication Sciences and Disorders - 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.

## 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

- Anderson, Alyssa (2023), Assistant Professor, Ph.D., University of North Carolina at Raleigh, 2023
- 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), Associate Lecturer, M.S., Case Western Reserve, 2001
- Barikoo, Ali (2017), Associate 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, 1981
- Bernert, Donna J. (2007), Associate Professor, Ph.D., Southern Illinois University, 2005
- Blakely, Carmen M. (2007), Associate Professor, Ed.D., AT Still University, 2020
- Bolden, William (2024), Lecturer, M.A., Kent State University, 2014
- Caine-Bish, Natalie L. (1997), Associate Professor, Ph.D., Kent State University, 2002
- Ding, Kele (2005), Professor, Ph.D., Indiana University-Bloomington, 2000
- Durant, Kathleen M. (2019), Assistant Professor, Ph.D., University Of Memphis, 2017
- Falcone, Tanya R. (2007), Senior Lecturer, M.S., Kent State University, 2009
- Forbes, Myrna A. (1998), Senior Lecturer, Au.D., University of Florida, 2005
- Glickman, Ellen L. (1995), Professor, Ph.D., University of Pittsburgh, 1988
- Ha, Eun-Jeong (2004), Professor, Ph.D., The Ohio State University, 1999
- Hale, Catherine C. (2000), Senior Lecturer, M.S., Indiana University, Bloomington, 1995
- Harnar, Hannah M. (2011), Associate 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
- Jonas, Jay C. (2006), Professor, Ph.D., Kent State University, 2018
- Kingsley, J. Derek (2013), Professor, Ph.D., Florida State University, 2009
- Kolonich, Erin M. (2017), Associate Lecturer, George Washington University, 2001
- Krumm, Mark P. (2005), Associate Professor, Ph.D., Wichita State University, 1990
- Magee, Meghan K. (2023), Assistant Professor, Ph.D., George Mason University, 2023

- Malone, Megan (2012), Senior 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), Associate Professor, Ph.D., University of Nevada-Las Vegas, 2013
- 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
- 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 15003 CAREERS IN HEALTH AND MEDICAL SCIENCES 2 Credit Hours

(Cross-listed with EXSC 15003 and IHS 15003) An overview of the profession of healthcare and medical professional associated including employment opportunities, academic preparation and clinical preparation. This course will address the qualities and skills required for a comprehensive list of professional opportunities in the healthcare and medical fields with an emphasis on professionalism, cultural competencies, ethics and self care. Students will be required to work with faculty and health care and medical professionals to outline a personalized program to assist in their professional development.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 2 lecture

**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 20001 SOCIOCULTURAL ASPECTS OF HEALTH CARE 3 Credit Hours

Advanced examination of the sociocultural aspects of healthcare careers. Specific emphasis will be placed of the recognition of diverse patient populations and effectively addressing their unique needs. Cultural competence will be the focus of 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 EXTREMITY, 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 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 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 minors.

**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 21010; 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 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 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 45040 PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS 3 Credit Hours**

(Slashed 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 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 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**

(Slashed 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 AND EXAM PREP IN ATHLETIC TRAINING 3 Credit Hours**

The purpose of this course is to prepare student to successfully transition to practice through rigorous investigation of contemporary issue in athletic training. Understanding the dynamic issues facing the profession will better prepare students for the challenges facing the profession and how to function effectively in the healthcare environment as an athletic trainer. Passing the Board of Certification (BOC) examination is the threshold for entry level practice into the profession. This course will provide exam taking strategies, ACES programming, and post workshop self directed strategies to position the students to successfully challenge the BOC examination upon graduation.

**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 62015 ORTHOPEDIC ASSESSMENT FOR THE ATHLETIC TRAINER 3 Credit Hours**

This course will provide a holistic approach to evidence based practice (EBP) information regarding the role of the athletic trainer in performing orthopedic examinations. This course builds upon the anatomic and injury pathology information in previous courses and broadens students knowledge and skill set regarding diagnostic skills and tools necessary to develop a more effective and efficient differential diagnosis of common and uncommon orthopedic injuries that fall within the scope of practice for an Athletic Trainer.

**Prerequisite:** Athletic Training major; and 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:** Standard Letter

**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 65036 GENERAL MEDICAL CONDITIONS IN ATHLETIC TRAINING 3 Credit Hours**

The purpose of this course is to provide a holistic approach to evidence based practice (EBP) information regarding the role of the athletic trainer in the initial assessment and referral of common general medical conditions that fall within the scope of practice for athletic training. The course provides an overview of pathology, etiology, signs and symptoms, diagnosis and treatments that follow established national and international professional standards of care. This course will include, but is not limited to dermatologic, respiratory, cardiovascular, endocrine, urogenital, neurological, musculoskeletal and digestive general medical conditions.

**Prerequisite:** Athletic Training major; and graduate standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**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 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 53093 VARIABLE TITLE WORKSHOP IN EXERCISE SCIENCE AND EXERCISE PHYSIOLOGY 1-3 Credit Hours**

(Repeatable for credit) (Slashed 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 55081 ADVANCED PHYSIOLOGY OF EXERCISE 3 Credit Hours**

(Slashed with EXSC 45081) This course is designed to provide an augmented understanding of acute and chronic responses to exercise. Focus is placed on understanding the physiological responses at both the systems and the cellular levels. Emphasis is placed on muscle bioenergetics, environmental physiology, ergogenic aids, sex differences, extreme sports, children and adolescents in sport and exercise and a greater understanding of muscle and cardiorespiratory responses to exercise.

**Prerequisite:** Graduate standing.

**Schedule Type:** Laboratory, Lecture, 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**

(Slashed with EXPH 73050) The research process and statistical concepts applied to those in 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**

(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 63091 RESEARCH SEMINAR 1 Credit Hour**

(Repeatable for credit) (Slashed with EXPH 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

**EXPH 63096 INDIVIDUAL INVESTIGATION IN EXERCISE PHYSIOLOGY 1-3 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:** 3-9 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-IP

**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-IP

**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:** Lecture

**Contact Hours:** 3 lecture

**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:** Standard Letter-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

**EXPH 83299 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:** EXPH 83199; and doctoral standing.

**Schedule Type:** Dissertation

**Contact Hours:** 15 other

**Grade Mode:** Satisfactory/Unsatisfactory-IP

## Exercise Science (EXSC)

**EXSC 15003 CAREERS IN HEALTH AND MEDICAL SCIENCES 2 Credit Hours**

(Cross-listed with ATTR 15003 and IHS 15003) An overview of the profession of Healthcare and Medical Professional associated including employment opportunities, academic preparation, and clinical preparation. This course will address the qualities and skills required for a comprehensive list of professional opportunities in the healthcare and medical fields with an emphasis on professionalism, cultural competencies, ethics and self care. Students will be required to work with faculty and health care and medical professionals to outline a personalized program to assist in their professional development.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 2 lecture

**Grade Mode:** Standard Letter

**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 esports performance.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**EXSC 35040 PRACTICAL AND APPLIED CONCEPTS OF STRENGTH AND CONDITIONING 3 Credit Hours**

(Equivalent to ATTR 35040) This course will discuss the practical and applied concepts related to strength and conditioning. Specifically, the course will focus on how to improve muscle strength, power, speed, agility, endurance, stamina, stability and muscle hypertrophy. Emphasis will be placed on the ability to create and administer safe and effective periodized training programs while ensuring safe and effective techniques fundamental to improvements in athletic performance.

**Prerequisite:** ATTR 25057 (and ATTR 25058) or BSCI 10020 (and BSCI 11010) or BSCI 21010 or BSCI 21020 or EXSC 25057 (and EXSC 25058).

**Corequisite:** ATTR 35054 (or EXSC 35054) and ATTR 35080 (or EXSC 35080).

**Schedule Type:** Laboratory, Lecture, Combined Lecture and Lab

**Contact Hours:** 2 lecture, 2 lab

**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 35080 PHYSIOLOGY OF EXERCISE 4 Credit Hours**

Response of the human to acute and chronic exercise with emphasis on the underlying physiological mechanisms.

**Prerequisite:** ATTR 25057 or BSCI 11010 or BSCI 21010 or EXSC 25057; and ATTR 25058 or BSCI 11020 or BSCI 21020 or EXSC 25058.

**Schedule Type:** Laboratory, Lecture, Combined Lecture and Lab

**Contact Hours:** 3 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 43093 VARIABLE TITLE WORKSHOP IN EXERCISE SCIENCE AND EXERCISE PHYSIOLOGY 1-3 Credit Hours**

(Repeatable for credit) (Slashed with EXPH 53093) Workshop in exercise science or physiology, 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:** ATTR 25057 or BSCI 11010 or BSCI 21010 or EXSC 25057; and ATTR 25058 or BSCI 11020 or BSCI 21020 or EXSC 25058; and EXSC 35080; and senior standing.

**Pre/corequisite:** EXSC 45081.

**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:** ATTR 25057 or BSCI 11010 or BSCI 21010 or EXSC 25057; and ATTR 25058 or BSCI 11020 or BSCI 21020 or EXSC 25058; and EXSC 35080; and senior standing.

**Pre/corequisite:** ATTR 35040 and EXSC 45081.

**Schedule Type:** Lecture

**Contact Hours:** 2 lecture

**Grade Mode:** Standard Letter

**EXSC 45040 ADVANCED STRENGTH AND CONDITIONING 3 Credit Hours**

(Slashed 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:** ATTR 25057 or BSCI 11010 or BSCI 21010 or EXSC 25057; and ATTR 25058 or BSCI 11020 or BSCI 21020 or EXSC 25058; and ATTR 21020; and EXSC 35040; and EXSC 35080.

**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 45081 ADVANCED PHYSIOLOGY OF EXERCISE (WIC) 3 Credit Hours**

(Slashed with EXPH 45081) This course is designed to provide an augmented understanding of acute and chronic responses to exercise. Focus is placed on understanding the physiological responses at both the systems and the cellular levels. Emphasis is placed on muscle bioenergetics, environmental physiology, ergogenic aids, sex differences, extreme sports, children and adolescents in sport and exercise and a greater understanding of muscle and cardiorespiratory responses to exercise.

**Prerequisite:** ATTR 25057 (and ATTR 25058) or BSCI 11010 (and BSCI 11020) or BSCI 21010 or BSCI 21020 or EXSC 25057 (and EXSC 25058); and EXSC 35080.

**Schedule Type:** Laboratory, Lecture, 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 32565 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 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.

**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 44030 GAMBLING, GAMING AND HEALTH 3 Credit Hours**

(Slashed with HED 54030) This course will provide information related to gambling, gaming, and their convergence to facilitate insight into personal decision-making and health outcomes. Emerging gambling and gaming trends will be investigated along with exploration of attitudes toward these activities that influence personal and community health. There is an emphasis on the application of knowledge and skills to assess and reduce personal risk.

**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 44091 SCHOOL HEALTH EDUCATION VARIABLE CONTENT SEMINAR 1 Credit Hour**

(Slashed with HED 54091) This course is designed to provide content for the K-12 health education topics required by the Ohio Department of Education to prepare students seeking school health licensure.

**Prerequisite:** None.

**Schedule Type:** Seminar

**Contact Hours:** 1 other

**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 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 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 49525 INQUIRY SEMINAR INTO PROFESSIONAL PRACTICE 3 Credit Hours**

Interdisciplinary inquiry into teaching as a professional practice in health education; emphasis on teacher as disciplined investigator. Utilization of teaching and learning technology.

**Prerequisite:** School Health Education or Physical Education and Sport Performance majors; and admission to advanced study.

**Schedule Type:** Seminar

**Contact Hours:** 3 other

**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) Discussion of major issues in health and safety education. Content emphasis vary depending on workshop.

**Prerequisite:** Graduate standing.

**Schedule Type:** Workshop

**Contact Hours:** 1-3 other

**Grade Mode:** Satisfactory/Unsatisfactory

**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 54030 GAMBLING, GAMING AND HEALTH 3 Credit Hours**

(Slashed with HED 44030) This course will provide information related to gambling, gaming, and their convergence to facilitate insight into personal decision-making and health outcomes. Emerging gambling and gaming trends will be investigated along with exploration of attitudes toward these activities that influence personal and community health. There is an emphasis on the application of knowledge and skills to assess and reduce personal risk.

**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 54091 SCHOOL HEALTH EDUCATION VARIABLE CONTENT SEMINAR 1 Credit Hour**

(Slashed with HED 44091) This course is designed to provide content for the K-12 health education topics required by the Ohio Department of Education to prepare students seeking school health licensure.

**Prerequisite:** Graduate standing.

**Schedule Type:** Seminar

**Contact Hours:** 1 other

**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 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 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 64061; 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 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**

(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 68092 DEVELOPMENTAL APPROACHES IN TEACHING SCHOOL HEALTH EDUCATION 3 Credit Hours**

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:** Practical Experience

**Contact Hours:** 9 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 84050.

**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 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 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

**HED 88092 DEVELOPMENTAL APPROACHES IN TEACHING SCHOOL HEALTH EDUCATION 3 Credit Hours**

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:** Practical Experience

**Contact Hours:** 9 other

**Grade Mode:** Standard Letter

## Integrated Health Studies (IHS)

**IHS 15003 CAREERS IN HEALTH AND MEDICAL SCIENCES 2 Credit Hours**

(Cross-listed with ATTR 15003 and EXSC 15003) An overview of the profession of Healthcare and Medical professions including employment opportunities, academic preparation, and clinical preparation. This course will address the qualities and skills required for a comprehensive list of professional opportunities in the healthcare and medical fields with an emphasis on professionalism, cultural competencies, ethics and self care. Students will be required to work with faculty and health care and medical professionals to outline a personalized program to assist in their professional development.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 2 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:** ATTR 15003 or EXSC 15003 or IHS 15003.

**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

**IHS 44096 INDIVIDUAL INVESTIGATION IN INTEGRATED HEALTH 1-3 Credit Hours**

(Repeatable for credit) 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

## 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 23016 WORLD FOOD CUSTOMS AND NUTRITION 3 Credit Hours**

The course explores cultural foods of diverse populations and focuses on understanding the interrelationship between food and agricultural practices of racial, ethnic and religious populations within the United States and globally.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**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 23520 SPORTS NUTRITION 3 Credit Hours**

Teaches basic sports nutrition as well as practical applications of sports nutrition principles for students majoring in various healthcare related fields.

**Prerequisite:** NUTR 23511.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**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 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 41095 SPECIAL TOPICS IN NUTRITION 1-4 Credit Hours**

(Repeatable for credit)(Slashed with NUTR 51095) 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 41096 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**

(Slashed with NUTR 53013) 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 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 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:** (ATTR 25057 (or EXSC 25057) and ATTR 25058 (or EXSC 25058)) or (BSCI 21010 and BSCI 21020); and NUTR 33512; and NUTR 33522; and CHEM 20481.

**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:** (EXSC 25057 and EXSC 25058) or (ATTR 25057 and ATTR 25058) or (BSCI 21010 and BSCI 21020); and CHEM 20481; and NUTR 33512; and NUTR 33522.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**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:** 2 lecture, 2 lab

**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 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 43540 MEDICAL NUTRITION THERAPY I 3 Credit Hours**

(Slashed with NUTR 53540) 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:** (ATTR 25057 and ATTR 25058) or (BSCI 21010 and BSCI 21020) or (EXSC 25057 AND EXSC 25058); and CHEM 20481; and NUTR 33512; and NUTR 33522; and senior standing.

**Corequisite:** NUTR 43541.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**NUTR 43541 MEDICAL NUTRITION THERAPY I LABORATORY 1 Credit Hour**

(Slashed with NUTR 53541) Simulated laboratory experiences of the nutrition care process, including documentation, nutrition assessment, interpretation of laboratory values and individualized patient care and planning for disease and nutrition needs related to behavioral nutrition, gastrointestinal disorders, obesity, diabetes, cardiovascular disease and anemia. Students will engage in simulated case studies.

**Prerequisite:** CHEM 20481; and NUTR 33512; and NUTR 33522; and senior standing.

**Corequisite:** NUTR 43540.

**Schedule Type:** Laboratory

**Contact Hours:** 2 lab

**Grade Mode:** Standard Letter

**NUTR 43542 MEDICAL NUTRITION THERAPY II 3 Credit Hours**

(Slashed with NUTR 53542) 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 43540.

**Corequisite:** NUTR 43543.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**NUTR 43543 MEDICAL NUTRITION THERAPY II LABORATORY 1 Credit Hour**

(Slashed with NUTR 53543) Simulated laboratory experiences of the nutrition care process, including documentation, nutrition assessment, interpretation of laboratory values and individualized patient care and planning for disease and nutrition needs related to wounds and burns, renal diseases, immune disorders, oncology, eating disorders, pediatrics and those requiring nutrition support. Students will engage in simulated case studies.

**Prerequisite:** NUTR 43511; and senior standing.

**Corequisite:** NUTR 43542.

**Schedule Type:** Laboratory

**Contact Hours:** 2 lab

**Grade Mode:** Standard Letter

**NUTR 45092 PRACTICUM IN NUTRITION (ELR) 1-3 Credit Hours**

Application of education in pre-professional experience in clinical, community and nutrition 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 51095 SPECIAL TOPICS IN NUTRITION 1-4 Credit Hours**

(Repeatable for credit)(Slashed with NUTR 41095) Discussion of a major topic within a specific field in nutrition and dietetics. Topic varies per course offering.

**Prerequisite:** Graduate standing.

**Schedule Type:** Lecture

**Contact Hours:** 1-4 lecture

**Grade Mode:** Standard Letter

**NUTR 51096 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:** Graduate standing; and special approval.

**Schedule Type:** Individual Investigation

**Contact Hours:** 1-3 other

**Grade Mode:** Standard Letter

**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 53030 FOOD SERVICE SYSTEMS MANAGEMENT 3 Credit Hours**

(Slashed with NUTR 43030)(Cross-listed with HEM 43030 and HTM 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 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 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 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 53540 MEDICAL NUTRITION THERAPY I 3 Credit Hours**

(Slashed with NUTR 43540) 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.

**Corequisite:** NUTR 53541.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**NUTR 53541 MEDICAL NUTRITION THERAPY I LABORATORY 1 Credit Hour**

(Slashed with NUTR 43541) Simulated laboratory experiences of the nutrition care process, including documentation, nutrition assessment, interpretation of laboratory values and individualized patient care and planning for disease and nutrition needs related to behavioral nutrition, gastrointestinal disorders, obesity, diabetes, cardiovascular disease and anemia. Students will engage in simulated case studies.

**Prerequisite:** Graduate standing.

**Corequisite:** NUTR 53540.

**Schedule Type:** Laboratory

**Contact Hours:** 2 lab

**Grade Mode:** Standard Letter

**NUTR 53542 MEDICAL NUTRITION THERAPY II 3 Credit Hours**

(Slashed with NUTR 43542) 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.

**Corequisite:** NUTR 53543.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**NUTR 53543 MEDICAL NUTRITION THERAPY II LABORATORY 1 Credit Hour**

(Slashed with NUTR 43543) Simulated laboratory experiences of the nutrition care process, including documentation, nutrition assessment, interpretation of laboratory values and individualized patient care and planning for disease and nutrition needs related to wounds and burns, renal diseases, immune disorders, oncology, eating disorders, pediatrics, and those requiring nutrition support. Student will engage in simulated case studies.

**Prerequisite:** Graduate standing.

**Corequisite:** NUTR 53542.

**Schedule Type:** Laboratory

**Contact Hours:** 2 lab

**Grade Mode:** Standard Letter

**NUTR 61015 NUTRITION AND DISEASE 3 Credit Hours**

This course will overview the physiologic and metabolic process of organ systems that are integral to diseases related to nutrition. The treatment methods for these diseases will also be introduced.

**Prerequisite:** Graduate standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**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 63518 ADVANCED SPORTS NUTRITION 3 Credit Hours**

Course focuses on nutritional concepts and principles related to athletic performance including energy needs, metabolism, and utilization in sports, macronutrient needs and metabolism, micronutrient needs of athletes, nutrient timing considerations, hydration needs and practices and other special considerations.

**Prerequisite:** Graduation standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**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:** NUTR 61015; and 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

**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 10002 INTRODUCTION TO COMMUNICATION DISORDERS AND DIFFERENCES 3 Credit Hours**

An introduction to communication disorders and differences using a) case studies via film and video review and critique, b) lecture, and c) class discussions. Covers speech, language, swallowing and hearing disorders and cultural and linguistic differences in communication.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter



**SPA 14500 INTRODUCTION TO PSYCHOLINGUISTICS FOR COMMUNICATION SCIENCES AND DISORDERS 3 Credit Hours**

Examines current theory and research specific to typical language – with a significant focus on the cognitive processes that inform our understanding of social, psychological and linguistic aspects of language use and understanding in the context of communication sciences and disorders.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**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 3.000 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 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 SPA 34102 and SPA 43402.

**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 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**

(Slashed with SPA 54030, SPA 74030 and SPED 54030) 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 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 (DIVG) (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:** Diversity Global, Experiential Learning Requirement

**SPA 44096 INDEPENDENT STUDY: SPEECH PATHOLOGY AND AUDIOLOGY 1-6 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 special approval.

**Schedule Type:** Individual Investigation

**Contact Hours:** 3-18 other

**Grade Mode:** Standard Letter-IP

**SPA 44110 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:** Admittance into the speech pathology and audiology professional phase (minimum 3.000 overall GPA at 60 credits); and SPA 34102 and SPA 34106.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**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); 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 the essential professional written communication associated with evaluation and intervention methodology for individuals with communication disorders.

**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:** 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**

(Slashed with SPA 44010) 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 54030 AUTISM SPECTRUM DISORDERS OVER THE LIFESPAN 3 Credit Hours**

(Cross-listed with SPED 54030) (Slashed with SPA 44030 and SPA 74030) 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 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 1-6 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:** 3-18 other

**Grade Mode:** Standard Letter-IP

**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 54309 AUTISM SPECTRUM DISORDERS: THEORY AND DIAGNOSIS 3 Credit Hours**

(Cross-listed with SPED 54309) (Slashed with SPED 44309 and SPA 74309) 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 60708 CRITICAL ANALYSIS OF RESEARCH 2 Credit Hours**  
(Slashed with SPA 70708) Development of a reading knowledge of research and the ability to evaluate the quality of research studies.

**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:** Satisfactory/Unsatisfactory-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, symptomologies, 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 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 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, symptomatology, 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 a maximum of 9 credit hours)Critical review and application of systems and methods for assessment and remediation of articulation and phonological 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)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:** Standard Letter-S/U-IP

**SPA 64492 CLINICAL PRACTICE IN SPEECH PATHOLOGY AND AUDIOLOGY 1-12 Credit Hours**

(Repeatable for credit) Supervised clinical practice with patients who have speech, hearing or language problems.

**Prerequisite:** Graduate standing; and special approval.

**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.

**Corequisite:** SPA 64592.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**SPA 64591 SEMINAR:FLUENCY DISORDERS 1-3 Credit Hours**

(Repeatable for a maximum 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.

**Prerequisite:** Graduate standing; and special approval.

**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 2 Credit Hours**

(Slashed with SPA 74891) (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 64302 and SPA 64500; and graduate standing.

**Schedule Type:** Seminar

**Contact Hours:** 2 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 NEURO-OTOLOGY 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:** 2 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 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 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 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 70721 EVALUATION AND MANAGEMENT OF BALANCE DISORDERS 3 Credit Hours**

Study of the balance mechanism; differential diagnostic assessment of balance disorders including electronystagmography, 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 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 70732 AUDIOLOGIC TREATMENT ACROSS THE LIFESPAN 4 Credit Hours**

Study of current methodologies employed in the audiologic 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 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 audiologic 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 74030 AUTISM SPECTRUM DISORDERS OVER THE LIFESPAN 3 Credit Hours**

(Slashed with SPA 44030, SPA 54030 and SPED 54030) 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 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, symptomologies, 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 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**

(Slashed with SPA 54309, SPED 44309 and SPED 54309) 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 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 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

**SPA 74391 SEMINAR:ARTICULATION AND PHONOLOGY 1-3 Credit Hours**

(Repeatable for a maximum of 9 credit hours)Critical review and application of systems and methods for assessment and remediation of articulation and phonological disorders.

**Prerequisite:** Doctoral standing.

**Schedule Type:** Seminar

**Contact Hours:** 1-3 other

**Grade Mode:** Satisfactory/Unsatisfactory-IP

**SPA 74491 SEMINAR:ORGANIC SPEECH DISORDERS 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:** Doctoral standing.

**Schedule Type:** Seminar

**Contact Hours:** 1-3 other

**Grade Mode:** Standard Letter-S/U-IP

**SPA 74492 CLINICAL PRACTICE IN SPEECH PATHOLOGY AND AUDIOLOGY 1-12 Credit Hours**

(Repeatable for credit) Supervised clinical practice with patients who have speech, hearing or language problems.

**Prerequisite:** Doctoral standing; and special approval.

**Schedule Type:** Practical Experience

**Contact Hours:** 1-12 other

**Grade Mode:** Standard Letter-IP

**SPA 74500 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:** Doctoral standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**SPA 74501 SOCIAL COMMUNICATION ASPECTS OF AUTISM SPECTRUM DISORDER 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 use of assistive technology to enhance social communicative functioning in those with ASD.

**Prerequisite:** Doctoral standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**SPA 74504 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 4/54110; and doctoral standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**SPA 74591 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:** Doctoral standing.

**Schedule Type:** Seminar

**Contact Hours:** 1-3 other

**Grade Mode:** Standard Letter-S/U-IP

**SPA 74592 CLERKSHIP I 1 Credit Hour**

Introduction to clinical practicum in audiology. Directed observation of clinical practice including audiologic diagnosis and audiologic rehabilitation are required.

**Prerequisite:** Admission to the audiology major; and doctoral standing; and special approval.

**Schedule Type:** Practical Experience

**Contact Hours:** 18 other

**Grade Mode:** Satisfactory/Unsatisfactory

**SPA 74600 RESEARCH METHODS IN SPEECH-LANGUAGE PATHOLOGY 3 Credit Hours**

Methodologies for collecting, analyzing and interpreting data for clinical and research purposes in speech language pathology and audiology.

**Prerequisite:** Doctoral standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**SPA 74691 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 doctoral standing.

**Schedule Type:** Seminar

**Contact Hours:** 1-3 other

**Grade Mode:** Standard Letter-S/U-IP

**SPA 74692 CLERKSHIP II 1 Credit Hour**

Introduction to clinical practicum in audiology. Directed observation of clinical practice including audiologic diagnosis and audiologic rehabilitation are required.

**Prerequisite:** Admission to the audiology major; and doctoral standing; and special approval.

**Schedule Type:** Practical Experience

**Contact Hours:** 1 other

**Grade Mode:** Satisfactory/Unsatisfactory

**SPA 74791 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 or SPA 6/74504; and doctoral standing.

**Schedule Type:** Seminar

**Contact Hours:** 1-3 other

**Grade Mode:** Standard Letter-S/U-IP

**SPA 74891 SEMINAR: COMMUNICATION MODALITIES AND ASSISTIVE TECHNOLOGY 2 Credit Hours**

(Slashed with SPA 64891) (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:** 2 other

**Grade Mode:** Standard Letter

**SPA 74991 SEMINAR: CRITICAL TOPICS IN SPEECH LANGUAGE PATHOLOGY 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; and doctoral standing.

**Schedule Type:** Seminar

**Contact Hours:** 1-3 other

**Grade Mode:** Standard Letter-S/U-IP

**SPA 75092 CLINICAL PRACTICUM I IN SPEECH LANGUAGE PATHOLOGY 2-3 Credit Hours**

(Slashed with SPA 65092) (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 CLIN PR II 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**

(Slashed with SPA 65192) (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 permission to enroll in Clinical Practicum III in Speech Language Pathology SPA 75292.

**Prerequisite:** SPA 75092 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 75292 CLINICAL PRACTICUM III IN SPEECH LANGUAGE PATHOLOGY 2-3 Credit Hours**

(Slashed 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**  
(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-IP

**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 1-3 Credit Hours**

(Repeatable for credit) Independent study of topics to be selected in consultation with graduate faculty.

**Prerequisite:** Doctoral standing.

**Schedule Type:** Individual Investigation

**Contact Hours:** 3-9 other

**Grade Mode:** Satisfactory/Unsatisfactory-IP

**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-IP

**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-IP