EXERCISE AND NUTRITION SCIENCES

- Physical Education, Exercise Physiology/Adult Fitness, MS (https://bulletin.uakron.edu/graduate/colleges-programs/health-professions/sport-science-wellness-education/physical-education-exercise-physiology-adult-fitness-ms/)
- Physical Education, Sport Science/Coaching, MS (https://bulletin.uakron.edu/graduate/colleges-programs/health-professions/sport-science-wellness-education/physical-education-sport-science-coaching-ms/)

Physical Education (5550)

5550:500 Musculoskeletal Anatomy I: Upper Extremity (3 Credits)
Prerequisites: 3100:200, 3100:201, 3100:202, 3100:203 and 5550:201. Designed to address the upper portions of the musculoskeletal system in comprehensive detail. Includes articulations, cytology, histology, and neurological integration with lab and practical experiences.

5550:501 Musculoskeletal Anatomy II: Lower Extremity (3 Credits)
Prerequisites: 3100:200, 3100:201, 3100:202, 3100:203 and 5550:201. Designed to address the lower portions of the musculoskeletal system in comprehensive detail. Includes articulations, cytology, histology, and neurological integration with lab and practical experiences.

5550:505 Advanced Strength and Conditioning (3 Credits)
This course teaches strength and conditioning programs design for heterogeneous populations. The course covers high-level sport specific exercise prescriptions that aids injury prevention and performance enhancement.

5550:510 Intro: Sport Sociology (3 Credits)
Provides information to students about the sociological aspects of sport.

5550:518 Cardiorespiratory Function (3 Credits)
This course is designed to study the normal structure and function of the respiratory system and how it is affected by different types of disease.

5550:522 Sport Planning/Promotion (3 Credits)
Analysis of marketing/promotions from a sport manager’s perspective. Emphasis on marketing strategy, tactics and development in sport delivery systems.

5550:524 Sports Leadership (3 Credits)
Introduces students to current issues related to leadership, management, and supervision. Examines current sport leadership research and governance structure of amateur and professional sport organizations.

5550:526 Nutrition for Sports (3 Credits)
This course will provide an explanation of the consumption, absorption, and recommendation for diet of athletes and the physically active individual.

5550:528 Nutrition for Teachers and Coaches (3 Credits)
Covers nutritional basics and current topics related to teaching physical education/health and coaching athletes.

5550:536 Foundations & Elements of Adapted Physical Education (3 Credits)
Principles, components, and strategies necessary in providing motor activities for handicapped students via application of a neurodevelopmental model and alternative methods. Three hour lecture.

5550:538 Cardiac Rehab Principles (3 Credits)
This course will teach students the core competencies for cardiac rehab professionals, based upon the American Association of Cardiovascular and Pulmonary Rehabilitation Specialists (AAVCPR).

5550:540 Injury Management for Teachers & Coaches (2 Credits)
This course challenges the graduate student to understand ways to provide and care for the safety of individual they teach.

5550:541 Advanced Athletic Injury Management: Upper Extremity (4 Credits)
Prerequisites: 3100:200, 3100:201, 3100:202, 3100:203 and 5550:240. This course is designed to cover recognition, evaluation, and rehabilitation of upper extremity injuries as well as general medical pathologies of the upper extremity.

5550:546 Instructional Techniques in Secondary Physical Education (3 Credits)
Instructional strategies for secondary physical education. The course content is to improve the teaching skills of students who will be teaching physical education at the secondary level. It is a required course for the physical education licensure.

5550:547 Instructional Techniques for Children in Physical Education (3 Credits)
Instructional strategies for elementary physical education. The course content is to improve the teaching skills of students who will be teaching physical education for children. It is a required course for the physical education licensure.

5550:550 Organization & Administration of Physical Education, Intramurals and Athletics (3 Credits)
General concepts of administration and organization in physical/health education, intramural, and athletic programs.

5550:552 Foundations of Sport Science, Physical and Health Education (3 Credits)
Overview of the emergence of sport science, physical and health education as a profession and the supporting role of underlying scholarly and scientific disciplines.

5550:553 Principles of Coaching (3 Credits)
Basics for becoming a successful coach. Discussion of principles applying to most sports, players and coaches.

5550:562 Legal Aspects of Physical Activity (2 Credits)
Overview legal and ethical elements of greatest concern to specialists in sport and physical activity. Cases used to illustrate specific points. Topics vary.

5550:565 Psychology of Injury Rehabilitation (2 Credits)
Prerequisites: 3100:200, 3100:201, 3100:202, and 3100:203. This course will address the cognitive and affective aspects of injury and rehabilitation of injury. Specifically the stages of rehabilitation and techniques to aid in the rehabilitation process.

5550:570 Orthopedic Injury and Pathology (3 Credits)
Prerequisites: 3100:200, 3100:201, 3100:202, and 3100:203. This course will discuss common musculoskeletal pathology and surgical procedure associated with a physically active population.

5550:590 Workshop: Physical Education (1-3 Credits)
Practical, intensive, and concentrated involvement with current curricular practices in areas related to physical education.

5550:592 Workshop: Physical Education (1-3 Credits)
Practical, intensive, and concentrated involvement with current curricular practices in areas related to physical education.
5550:594 Student Teaching Colloquium (for Master's Plus Initial Lic.) (2 Credits)
Prerequisites: required physiological foundations courses, required historical/philosophical foundations courses, required program studies courses. Corequisite: 595. Students who have a bachelor's degree but no teaching licensure and who are completing the master's plus initial licensure program will meet while completing student teaching to discuss concerns about the student teaching experience, to analyze previous learning as it relates to this and future teaching.

5550:595 Practicum: Student Teaching (8 Credits)
Prerequisites: Core courses and program studies courses, each with a 2.5 grade point average. Corequisite: 5550:594. Student teaching for 16 weeks in primary and secondary school settings.

5550:600 Biomechanics Applied to Sport and Physical Activity (4 Credits)
Training future professionals in an integrated approach to qualitative diagnosis of motor skills for a variety of professional settings. Required clinical/field experiences.

5550:601 Sports Administration & Supervision (3 Credits)
Organizational and administrative efficiency in implementing sports programs (event management, budgeting, public relations); objective and effective procedures for evaluation/selection of personnel; periodic program reviews.

5550:602 Motor Behavior Applied to Sports (3 Credits)
Coaching education principles related to motor development and motor skill learning. Focus on effective practices for learning and advanced skills teaching for coaches.

5550:603 Tactics & Strategies in the Science of Coaching (3 Credits)
Course focuses on coaching and teaching the skills, tactics, and strategies in individual and team sports.

5550:604 Current Issues in Sport and Physical Education (3 Credits)
This course represents a planned experience in interpretation and articulation of information within the context of selected issues in sport.

5550:605 Physiology of Muscular Activity & Exercise (3 Credits)
Functions of body systems and physiological effects of exercise. Laboratory experiences, lectures, discussions.

5550:606 Statistics: Quantitative & Qualitative Methods (3 Credits)
Prerequisite: S100.640. Research methods/designs, statistics (application and interpretation), use of computers and appropriate software as they relate to various disciplines in the area of physical activity.

5550:607 Health Behavior Change: Theory to Practice (3 Credits)
This course provides an overview of the CAAHEP performance domains and associated competencies related to behavioral strategies for exercise/physical activity adoption, adherence and maintenance. This course prepares students to assess client readiness to change behavior, and to recommend strategies for behavior modification based on fitness level, disease status, and client goals.

5550:609 Motivational Aspects of Physical Activity (3 Credits)
Analysis of factors influencing motivation of motor performance with emphasis on competition, audience effects, aggression.

5550:610 Mastering Teaching and Coaching (3 Credits)
To learn about becoming master teachers and coaches, students will apply effective teaching skills, focus on context, and reflect on the teaching/coaching process. Additional 10 clinical/field hours required.

5550:611 Research & Analysis of Effective Teaching in P.E. (3 Credits)
For the new professional, this course concentrates on research and analysis of skills and professional competencies needed to become an effective teacher of physical education.

5550:612 General Medical Aspects (3 Credits)
Covers various topics related to sports medicine and general medical conditions. Students will gain perspectives and exposure to a variety of allied health care professionals.

5550:615 Exercise Pathophysiology (3 Credits)
This course prepares students for theoretical and practical aspects of applying physical activity as therapeutic exercise for a wide array of conditions and diseases. Course content explores the epidemiology, etiology, pathophysiology, disease implications and therapeutic interventions of cardiovascular, pulmonary, metabolic, immunological, neuromuscular, psychological, sensory and cognitive disorders consisting of both classroom lectures and hands-on laboratory skills. Course material will cover performance domain standards and guidelines aligning with the recommendation of the CAAHEP Committee on Accreditation for Exercise Sciences (CoAES) to prepare students for the Exercise Physiology profession. Focus on clinical contraindications and safety precautions for each disease and illness will be highlighted. The course is designed to provide the student with understanding of the pathophysiology and exercise responses in these populations in preparation for professional work in the community as an applied or clinical exercise physiologist.

5550:618 Clinical Exercise Testing & Prescription (3 Credits)
This course provides the framework to prepared both the Applied and Clinical Exercise Physiologists for theoretical and practical aspects of fitness assessments, evaluations, testing and prescription. Students will become competent in electrocardiography interpretation and exercise testing protocols. This course will cover performance domain standards and guidelines aligning with the recommendation of the CAAHEP Committee on Accreditation for Exercise Sciences (CoAES) to prepare students for the Exercise Physiology profession.

5550:620 Laboratory Instrumentation Techniques in Exercise (3 Credits)
This is a course designed to provide hands-on laboratory experiences for students in the area of exercise science.

5550:630 Business of Sport (3 Credits)
The focus of this course is related to the important knowledge that administrators should have related to the sport business field.

5550:680 Special Topics in Health & Physical Education (2-4 Credits)
(May be repeated) Prerequisite: permission of instructor. Group study of special topics in health and physical education and sports medicine.

5550:695 Field Experience: Masters (1-6 Credits)
Prerequisite: permission of advisor. Participation in a work experience related to physical education. The experience may not be part of current position. Documentation of project required.

5550:697 Independent Study: Physical Education (1-3 Credits)
Prerequisite: Permission of advisor. In-depth analysis of current practices or problems related to physical education. Documentation of the study required.

5550:698 Masters Problem (2-4 Credits)
Prerequisite: permission of advisor. In-depth study of a research problem in education. Student must be able to demonstrate critical and analytical skills in dealing with a problem in physical education.
5550:699 Masters Thesis (4-6 Credits)
Prerequisite: permission of advisor. In-depth research investigation.
Student must be able to demonstrate necessary competencies to deal with a research problem in physical education.