

HUMAN PERFORMANCE (HP)

HP 5110 Clinical Education (1)

Pre-requisite(s): A "C" or better in HP 5302

Students gain hands-on experience in athletic training through the completion of clinical education hours. Students are exposed to a variety of healthcare settings and patient populations. Additionally, students' entry-level clinical skills are assessed in accordance with accreditation standards.

HP 5199 Non-Thesis Degree Completion (1)

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

HP 5201 Administrative Topics in Athletic Training (2)

Pre-requisite(s): A "C" or better in HP 5304

Students obtain a foundational understanding of local, state, federal, and institutional/organizational laws and regulations pertaining to the delivery of healthcare services. Students apply business principles to the management of financial resources, strategic planning, physical facilities, and sources of risk related to athletic training.

HP 5301 Introduction to Patient Care (3)

Pre-requisite(s): Acceptance into the Master's of Athletic Training program

Introduction to the profession of athletic training. Students learn important concepts of patient care related to cultural competence, ethical practice, risk management, and documentation. Additionally, students learn how lifestyle choices can affect patient outcomes.

HP 5302 Evaluation and Diagnosis in Athletic Training I (3)

Pre-requisite(s): Admission into the Master of Athletic Training program
Foundational understanding of the evaluative procedures related to the face and distal extremities. Perform a complete physical exam of a patient to formulate a clinical diagnosis and treatment plan that is relevant to specific areas of the human body.

HP 5303 Therapeutic Interventions I (3)

Pre-requisite(s): HP 5301 with a grade of C or higher

Theoretical foundation for the application of therapeutic modalities and therapeutic exercise to establish best practices in patient care. Concepts related to practice patterns, quality assurance, and cost effective healthcare.

HP 5304 Concepts in Injury Management (3)

Pre-requisite(s): A "C" or better in HP 5402

Students obtain a foundational understanding of the evaluative procedures related to select general medical conditions and acute conditions, including triaging those that are life-threatening or otherwise emergent. Students are taught to use a variety of techniques to manage acute conditions appropriately.

HP 5305 Advanced Patient Care (3)

Pre-requisite(s): A "C" or better in HP 5307

Students obtain a foundational understanding of a variety of contemporary therapy techniques used for patient care. Students develop and implement intervention strategies for improving or maintaining a patient's health and quality of life.

HP 5306 Research Project in Athletic Training (3)

Pre-requisite(s): Athletic Training Program Director approval
Research project to fulfill the degree requirements of the Master of Athletic Training program. Course must be taken twice for a total of six hours.

HP 5307 Interdisciplinary Approach to Healthcare (3)

Pre-requisite(s): A "C" or better in HP 5402 and HP 5403

This course provides students with the theoretical foundation for the application of public health and mental health principles used to establish best practices in patient care. Students also learn concepts related to working within an interdisciplinary healthcare team to evaluate, treat, and support patients with a variety of healthcare concerns.

HP 5308 Professional Preparation and Current Topics in AT (3)

Pre-requisite(s): A "C" or better in HP 5201

In this course students are prepared for the BOC exam through a comprehensive review of the athletic training domains. Students are also prepared for a transition to practice by learning issues related to professional development and state/federal healthcare regulations.

HP 5320 Nutritional Biochemistry (3)

Advanced study of the biochemistry of nutrition related to macronutrient and micronutrient synthesis and metabolism. Biochemical structures and pathways involved in conducting nutrition research will be studied.

HP 5322 Exercise, Nutrition, and Endocrinology (3)

The study of the relationship between exercise, nutrition and the endocrine system and how this relationship affects exercise performance and good health. The influence of hormonal functions on fluid regulation, immunology, substrate utilization, stress responses, biological rhythms and physical performance will be studied.

HP 5324 Muscle Physiology and Metabolism (3)

Advanced study of the microstructure, function, and metabolism of human muscle with attention to molecular, histochemical, and biochemical assessment methodology used to assess the effects of exercise, training, and/or nutritional interventions on muscle physiology and biochemistry.

HP 5326 Macronutrients, Micronutrients, Exercise and Health (3)

Advanced study of the roles of carbohydrate, fat, protein, vitamins, and minerals on exercise, performance, and health. The course focuses on how dietary manipulation of macronutrients and micronutrients affects resting and exercise metabolism, disease prevention, and/or disease management.

HP 5328 Physiology of Exercise I: Neuromuscular Aspects (3)

Neuromuscular physiology, its relationship to exercise, muscle physiology, energy production, and nerve transmission.

HP 5330 Physiology of Exercise II - Cardiovascular Aspects (3)

Cardiovascular physiology, its relationship to exercise, cardiovascular structure and function, stress testing, cardiopulmonary system, and cardiovascular disease.

HP 5331 Laboratory Skills in Exercise Physiology (3)

Laboratory experience with tests and measures commonly employed in human performance research laboratories. The selected lab tests are designed not only to reinforce the basic principles learned in the lecture courses but also to teach the basic principles and skills of measurement and evaluation in the field of exercise physiology. Practical experiences include cardiovascular tests, ECG, blood analysis techniques, body composition, electromyography, and respiratory tests.

HP 5332 Prevention and Rehabilitation of Leisure-Related Sport Injuries (3)

Nutritional and physiological principles in the prevention of and the rehabilitation of leisure-sport injuries, including cardiac rehabilitation.

HP 5333 Exercise Testing and Prescription (3)

Pre-requisite(s): Six semester hours of graduate exercise physiology
Exercise testing and prescription that emphasizes the necessary preparation for certification by the American College of Sports Medicine.

HP 5334 Pedagogy & Physical Education (3)

In this course students develop an understanding of the tools of inquiry of physical education/coaching; the ability to design, deliver and evaluate a variety of instructional strategies and processes that incorporate learning resources, materials, technologies, and state and national standards appropriate to physical education/coaching; the ability to assess student learning in physical education/coaching; and the ability to apply this knowledge, skills, and attitudes to real life situations and experiences.

HP 5335 Sport Pedagogy (3)

This course examines the development and application of the research conducted in physical education and coaching settings.

HP 5340 Biochemistry in Exercise Science (3)

An advanced overview of the role of exercise and training on metabolic pathways, energy production/regulation, signaling, muscle excitation-contraction, metabolism and adaptation focusing on how various biochemical markers can be assessed at rest, during, and following exercise using various biochemical assays and techniques.

HP 5348 Psychology of Physical Activity (3)

The study of the theoretical foundations and research base for physical activity behavior change and exercise adherence. Innovative methods for affecting attitudes, knowledge, and behavior regarding exercise initiation and adherence in individuals and groups will be discussed.

HP 5352 Principles of Exercise and Sport Nutrition (3)

The advanced study of the interrelationships between nutrition and health. Particular attention will be given to the role nutrition plays as a means to enhance health and performance in sport.

HP 5353 Obesity and Weight Management (3)

Advanced study of obesity including the medical, emotional and psychological conditions that involve weight problems. Effective and age-appropriate weight management techniques will be investigated in terms of the life cycle stage. Current theories, methods, and techniques related to weight loss, weight management, and conducting obesity research will be studied.

HP 5354 Methods of Strength and Conditioning (3)

Physiological responses and adaptations associated with strength training are covered in conjunction with laboratory demonstrations and specific practical experiences. Mechanical and force/torque/work/power relationships are emphasized in laboratory demonstrations including isokinetic dynamometry, free weights, resistance machines and fundamental Olympic lifts.

HP 5355 Power Speed Agility Quickness Training (3)

The purpose of this course is to address physiological responses and adaptations associated with power, plyometrics, speed and agility which are covered in conjunction with laboratory demonstrations and specific practical experiences based on available scientific research. Practical mastery as well as theoretical understanding is required.

HP 5356 Periodized Program Models of Strength Training and Conditioning (3)

Pre-requisite(s): HP 5354

The purpose of this course is to study current scientific principles and procedures relating to periodized strength training and conditioning. Emphasis will be placed on many aspects of periodized training which include but are not limited to the background/history, concepts, variations, and application of periodization models.

HP 5357 Exercise Programming for Individuals with Chronic Diseases and Disabilities (3)

A study of the pathophysiology of common heart diseases and other ambulatory sensitive conditions with the concentration in design, implementation and administration of a multidimensional therapeutic exercise prescription approach.

HP 5358 Environmental Physiology (3)

The study of physiological regulation during exercise in stressful environments. The ability of the body to maintain optimal health and fitness during work or exercise in the following conditions will be investigated: heat, high altitude, humidity, air pollution, cold, wind-chill, variations in day length, air ions and hyperbaric conditions.

HP 5363 Manual Therapies in Orthopedic Rehabilitation (3)

A course for athletic trainers on advanced manual techniques in sports medicine: proprioceptive neuromuscular facilitation, joint mobilization, therapeutic massage, myofascial manipulation, muscle energy techniques, and strain/counterstrain techniques are included.

HP 5368 Motor Skill Learning and Performance (3)

Pre-requisite(s): Graduate standing

The study of the processes and variables that influence skill acquisition and the mechanisms which are involved in performing coordinated movements. Topics will include principles of human movement behavior, motor learning, motor programs and system dynamics.

HP 5370 Sport Psychology (3)

Study and application of psychological principles which influence behavior, enhance skill acquisition, and maximize sport performance of athletes, coaches, and others involved in sport.

HP 5377 Issues and Trends in Human Performance and Sport Management (3)

Investigation of current issues and trends in the fields of Human Performance and Sport Management and how these issues and trends may impact the future.

HP 5379 Research Methods in Health, Human Performance, and Recreation (3)

Developmental theory, investigation and gathering of data, statistical analysis and evaluation, and research reporting as these relate to research in health, human performance, and recreation.

HP 5384 Biomechanics of Human Movement (3)

Pre-requisite(s): HP 4384

Review of current research on the biomechanics of human movement. Practical experience in the methods of biomechanical research.

HP 5401 Evaluation and Diagnosis in Athletic Training II (4)

Pre-requisite(s): HP 5302 with a grade of C or higher

Foundational understanding of the evaluative procedures related to the pelvis, shoulder, knee and elbow. Students develop an understanding of specific areas of general medicine. Students learn to perform a complete physical exam of a patient to formulate a clinical diagnosis and treatment plan that is relevant to specific areas of the human body.

HP 5402 Evaluation and Diagnosis in Athletic Training III (4)

Pre-requisite(s): HP 5401 with a grade of C or better
 Foundational understanding of the evaluative procedures related to the head and spine. Instruction on the procedures used to evaluate, treat, and manage brain injuries. General medical conditions related to the respiratory, cardiovascular, and neurological systems are also reviewed.

HP 5403 Therapeutic Interventions II (4)

Pre-requisite(s): HP 5303 with a grade of C or higher
 Students obtain a foundational understanding of the application of therapeutic modalities and therapeutic exercise related to the practice of athletic training. Students learn to use a variety of techniques to create an effective treatment plan for diverse patient populations.

HP 5V65 Research Seminar (1-6)

Provides an opportunity for students and doctoral program faculty to discuss current research in kinesiology, exercise nutrition, and health promotion as well as various professional issues (e.g., grant writing, research funding, employment opportunities, teaching techniques, tenure process, presentation methods, etc.) The seminar also provides an opportunity for students to make research proposals and/or presentations.

HP 5V70 Special Topics in Health, Human Performance, and Recreation (1-6)

Cross-listed as HED 5V70, RLS 5V70
 Opportunities for intensive, in-depth study of areas of health, human performance, or recreation of special professional interest and need to the student. Supervision and support will be given by selected resource persons.

HP 5V74 Professional Literature Seminar in Health, Human Performance and Recreation (1-6)

Cross-listed as HED 5V74, RLS 5V74
 Supervised readings in health, human performance, and recreation. May be repeated once.

HP 5V75 Seminar in HHPR (1-3)

hrs.

HP 5V90 Internship (1-6)

Cross-listed as HED 5V90, RLS 5V90
 Full-time experience in an agency, corporation, or hospital for on the job training in a professional field. Minimum requirement -- 400 clock hours; and consent of advisor.

HP 5V94 Practicum in HHPR (1-3)

Cross-listed as HED 5V94, RLS 5V94
 Part-time experience in an agency, corporation, or hospital for exposure to various professional areas of employment. May be taken twice. May not be taken if HHPR 5690 is taken. Minimum requirement - 200 clock hours and consent of adviser.

HP 5V99 Thesis (1-6)

Cross-listed as RLS 5V99
 Credit received when thesis approved. A total of six hours will be required.

HP 6000 Doctoral Research Seminar (0)

Provides an opportunity for doctoral students to present and discuss current research in Kinesiology, Exercise Nutrition, and Health Promotion and to help enhance their research development.

HP 6300 Research Methods in Exercise and Nutrition Sciences (3)

Pre-requisite(s): Doctoral graduate student standing or consent of instructor
 This course provides a comprehensive overview of existing and emerging research methods and techniques involved in conducting doctoral research in Kinesiology, Exercise Nutrition, and Health Promotion.

HP 6397 Christianity, Ethics and Research with Human Participants (3)

An examination of ethical issues of conduct surrounding research involving human participants in Kinesiology, Exercise Nutrition, and Health Promotion. Ethical principles will be examined from secular constructs and Christian perspectives.

HP 6V70 Directed Research in Kinesiology, Exercise Nutrition and Health Promotion (1-6)

Pre-requisite(s): Doctoral graduate student standing or consent of instructor
 This course provides students with an opportunity to participate in individualized research within the department, university, and/or various collaborative clinical research centers conducting research on specific areas within Kinesiology, Exercise Nutrition and/or Health Promotion. A total of 15 hours of directed research is required for the program.

HP 6V99 Dissertation (1-9)

Supervised research for the completion of the doctoral dissertation and doctoral degree.