

HEALTH AND HUMAN PERFORMANCE (HHP)

HHP 520 - Research Methods. 3 Credits.

Offered every term. An introduction to research design and methodologies in integrative physiology, athletic training, and related fields. The course is designed to explore the consumption of research literature, study design, methodology, and the associated data analyses and interpretation as related to hypothesis-driven research. Students will learn the foundational approaches to modern research in order to become better consumers of research in the field, and enable their own exploration in research design. Level: Graduate

HHP 523 - Case Studies in Performance Psychology. 3 Credits.

Offered intermittently. Registration requires consent of instructor. Restricted to students in the Master of Athletic Training (MAT) program. Through the usage of both real and hypothetical case studies, the course will examine the field of sport/performance psychology and its role in the broader field of sports medicine. Level: Graduate

HHP 524 - Ethics & Human Performance. 3 Credits.

A critical examination of the ethical issues dominating the field of health and human performance and beyond with special emphasis on developing the conceptual frameworks needed to articulate our concerns and engage in meaningful dialogue with others. Level: Graduate

HHP 525 - Advanced Biomechanics. 3 Credits.

This course is focused on developing laboratory skills and an advanced understanding of the quantitative and qualitative basis for human motion. Particular emphasis will be placed on the Newtonian mechanics governing biological motion and the roles of the musculo-skeletal, nervous and cardio-vascular systems during human activity. This integrative approach will be used to quantify and understand motion by, and within, the human body; examples will be drawn from the sub-disciplines of clinical gait analysis, gerontology, sports medicine, biological engineering and performance physiology. The lecture portion of this course is co-convened with KIN425 Biomechanics. Level: Graduate

HHP 526 - Higher Education Pedagogy in Integrative Sciences. 3 Credits.

This course discusses the science behind student learning, scientific teaching, assessments and rubrics, active learning, project based learning, teaching technology, inclusive teaching and universal design, classroom and course management, and course design. Level: Graduate

HHP 528 - Advanced Exercise Prescription. 3 Credits.

Offered spring even years. Prereqs., Graduate status or consent of the instructor. This class presents the principles and practices of advanced athletic performance training in a thorough and useful sequence. Testing and improving power, strength, speed, quickness, coordination, agility, flexibility, local muscular endurance, and cardiovascular aerobic capacity and endurance are covered based on the scientific record. Students will learn how to tailor sport specific training exercises and drills and periodize the training program precisely for peak performance at critical points in the competitive season. Level: Graduate

HHP 529 - Advanced Exercise Physiology I. 3 Credits.

Offered autumn. Prereq., HHP 377, 378 or equiv. Advanced study of the effect of work, activity and exercise on human biochemistry, metabolism, endocrinology and muscle function. Level: Graduate

HHP 530 - Advanced Exercise Physiology II. 3 Credits.

Offered spring odd years. Prereq., HHP 529 or equiv. Advanced study of system physiology (circulatory, respiratory and renal function) and environmental factors applied to physical work, activity and exercise Level: Graduate

HHP 531 - Lab Procedures In Exercise Science. 3 Credits.

Offered autumn. Introduction to common laboratory tools associated with clinical and health assessment techniques, research measures, and data collection. Level: Graduate

HHP 560 - Advanced Electrocardiogram Assessment. 2 Credits.

The course will be delivered in-person (face-to-face), and includes a prerequisite of undergraduate exercise physiology. Evaluation in the form of a traditional letter grade will be based on performance on exams, on-line quizzes, a lab practical, lab practical mentoring, a topical paper and presentation. Level: Graduate

HHP 581 - Teaching Health & Human Performance. 3 Credits.

Offered fall and spring. Restricted to graduate students. Students assist with the preparation of lecture demonstrations, the grading of laboratory assignments, and the delivery of content, analysis, and safety protocols for the undergraduate laboratory sections to which they are assigned. The weekly meetings with the instructor of record provide students with advanced instruction in the relevant physiology and ensure agreement of objectives across all sections of the specific undergraduate course. Level: Graduate

HHP 583 - Advanced Exercise, Disease, and Aging. 3 Credits.

Prereq., undergraduate exercise physiology and either KIN 460 or HHP 560. The class performance will include the assignment of traditional letter grades based upon exams, on line quizzes, a topical paper and presentation, and mentoring of undergraduate peer-teaching. Level: Graduate

HHP 584 - Laboratory for Advanced Exercise, Disease, and Aging. 1 Credit.

The course is designed for IPAT masters students and doctoral students in the proposed Integrative Physiology and Rehabilitation Sciences programs. Prereq., undergraduate exercise physiology and either KIN 460 or HHP 560. Students will be evaluated using a traditional letter grade as assessed using lab practical assignments, an exam, and performance on team leading human subjects exercise testing risk assessments, exercise testing and interpretation, client counseling for exercise prescriptions and cardiovascular and metabolic disease risk modification using a 'lifestyle medicine' approach. Level: Graduate

HHP 590 - Research. 1-6 Credits.

(R-6) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

HHP 592 - Independent Study. 1-6 Credits.

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

HHP 594 - Seminar. 1-3 Credits.

(R-6) Offered spring. Prereq., consent of instr. A review and discussion of current research. Topics vary. Level: Graduate

HHP 598 - Internship. 1-6 Credits.

(R-6) Offered every term. Prereq., current First Aid and CPR certification, consent of advisor and instructor, and Community Health prereq., HHP 540 and HHP 544. Supervised field work in public and private agencies and institutions. 45 hours of internship site work = 1 credit. Level: Graduate

HHP 599 - Professional Paper. 1-3 Credits.

(R-3) Offered every term. Prereq., HHP 520. Preparation of a professional paper appropriate to the needs and objectives of the individual student. Level: Graduate

HHP 690 - Research. 1-6 Credits.

(R-6) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

HHP 691 - Special Topics. 1-9 Credits.

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

HHP 699 - Thesis/Dissertation. 1-18 Credits.

(R-18) Option for the proposed doctoral in Integrative Physiology and Rehabilitation Sciences. Work will reflect a research project designed by the doctoral candidate, their doctoral committee chair and with input from the doctoral committee members. Level: Graduate