HUMAN HEALTH & PHYSIOLOGY (HHP)

HHP 100 Big Ideas in HHP (4 Credits)
An exploration of significant questions and concepts, beliefs and creative visions, theories and discoveries in Human Health and Physiology designed for first-year students. A grade of C- or better fulfills the COLL 100 requirement. Although topics vary, the courses also seek to improve students' communication skills beyond the written word.
College Curriculum: C100

HHP 101 Intro to the Human Body (3 Credits)
A broad-based examination of the human body. Structure and function of cells, tissues, and organ systems will be examined in a variety of applications such as lifespan, environmental and evolutionary adaptations.
College Curriculum: C200
Domain: NQR

HHP 130 Introduction to Nutrition (3 Credits)
This introductory Science of Nutrition course provides discussions ranging from the use of scientific inquiry to determine individual nutrient needs to in-depth, life-cycle nutrition issues. It also addresses basic biochemistry and physiology as well as anatomy and physiology from a nutrition science perspective. A four-part "history of nutrition science" required reading provides background for understanding our present level of nutrition knowledge. This course also covers assessment of nutritional status, disordered eating, weight loss and gain, body composition, and factors that influence food choices. In addition, the course addresses issues related to food processing, additives, food-borne toxicants, and concerns about ecological sustainability.
College Curriculum: C200
Domain: NQR

HHP 150 First-Year Seminar (4 Credits)
An exploration of a specific topic in Human Health and Physiology. A grade of C- or better fulfills the COLL 150 requirement. Although topics vary, the courses emphasize academic writing skills, reading and analysis of texts, and discussion.
College Curriculum: C150

HHP 210 Human Anatomy (3 Credits)
Gross and histological study of the human organism with particular emphasis on the neuro-muscular systems as related to human movement.
Prerequisite(s): HHP 101 or KINE 200
Domain: NQR

HHP 210L Anatomy Laboratory (1 Credit)
Examination of the human body through detailed cadaver examination. Emphasis is placed on the skeletal, muscular, nervous, cardiovascular, and respiratory systems of the body.
Prerequisite(s): HHP 210 (may be taken concurrently) or KINE 303
Additional fees apply

HHP 211L Dissection Human Anat Lab (1 Credit)
Examination of the human body through detailed cadaver dissection. Emphasis is placed on the skeletal, muscular, nervous, cardiovascular, and respiratory systems of the body.
Corequisite(s): HHP 210
Additional fees apply

HHP 300 Statistical and Data Analysis in Health Sciences (3 Credits)
An introduction to the use of statistics within the process of evaluation. Descriptive and inferential statistical procedures including confidence intervals, correlation, t-tests, and analysis of variance are covered. Proper application of those procedures during the evaluation of data is emphasized.
College Curriculum: MAPR
Domain: NQR

HHP 310 Biomechanics Human Movement (3 Credits)
A study of the mechanical principles of the human body during movement.
Prerequisite(s): HHP 210 or KINE 303

HHP 314 Medical Terminology (3 Credits)
The purpose of this course is to provide the student with the medical terminology to communicate clearly with health professionals and patients. Common medical terms from each of the human body systems will be examined, translated, and pronounced.

HHP 315 Health-Related Exercise Prescription (3 Credits)
This course addresses the scientific basis of designing exercise programs to promote health among individuals of all ages, and both sexes. Special concerns (e.g. pregnancy, pre-diabetes, arthritis) will also be featured. It will NOT address the conditioning of elite athletic performance. Principles of overload, progression, and specificity are covered as well as intensity, frequency, duration, and mode. Various methods of training (endurance, Interval, resistance, cross-training) are featured. Finally, the detrimental effects of disuse, such as limb immobilization or bed rest, will be discussed.
College Curriculum: C200
Domain: NQR

HHP 316 Medical Pharmacology (3 Credits)
This course will introduce students to the general principles of pharmacology and the common medications that they may encounter while working in a clinical setting. Emphasis will be on general classifications of drugs and their mechanisms of action as well as memorization of some of the most commonly prescribed medications.

HHP 317 Motor Control (3 Credits)
Detailed study of issues associated with motor control. Drawing heavily from epistemology, neurology, cognitive science and motor behavior research the students will be expected to integrate and generalize such information to different clinical contexts.
Prerequisite(s): (HHP 210 or KINE 303)

HHP 318 Applied Exercise Prescription for Older Adults (3 Credits)
This course is designed to introduce students to the facilitation of fitness and wellness activities for older adults. Students will implement weight, cardiovascular, balance, and flexibility training; proper warm up and cool down techniques; and the basics of fitness program design. The class will include classroom theory, demonstration and practice of fitness activities and incorporates the goal of applied community research and scholarship as well as field work.
Prerequisite(s): HHP 315 or KINE 295

HHP 320 Human Physiology (3 Credits)
Detailed study of the manner in which different organ systems of the human body function.
Prerequisite(s): HHP 210 or KINE 303
Domain: NQR

HHP 320L Human Physiology Lab (1 Credit)
Experiments and demonstrations illustrating nerve and muscle function, sensory physiology, reflex activities, heart function and blood pressure and renal responses to fluid intake.
Prerequisite(s): HHP 320 (may be taken concurrently) or KINE 304
Additional fees apply

HHP 325 Exercise Physiology (3 Credits)
An in-depth study of the physiological aspects of exercise, fatigue, coordination, training and growth; functional tests with normal and abnormal subjects; investigations and independent readings.
Prerequisite(s): (HHP 320 or KINE 304)
Domain: NQR

HHP 325L Exercise Physiology- Lab (1 Credit)
Corequisite(s): HHP 325

HHP 326 Microbes in Human Disease (3 Credits)
An introductory course investigating microbes and their impact on human health. Topics to include pathogens of humans, their mechanism of action, their clinical relevance in the US and abroad, functions of the immune system and current medical practices to protect humans from infection.
Prerequisite(s): (HHP 320 or KINE 304)
Domain: NQR

HHP 326L Microbes in Human Disease Laboratory (1 Credit)
This course will introduce microbiological techniques in order to allow students to understand prokaryotic and eukaryotic organisms. In this lab, techniques will focus on bacteria, with students learning to use aseptic technique in the isolation and identification of bacterial species.
Prerequisite(s): HHP 326 (may be taken concurrently) or KINE 310 (may be taken concurrently)

HHP 329 Physiology Journal Club (1 Credit)
This is a weekly seminar course in which students will read, present, and discuss recent, high-impact original research articles from the biomedical literature. The emphasis will be on articles in the area of cardiovascular physiology, metabolism, aging physiology, and neuroscience with some flexibility to venture into other areas of physiology/medicine that are of particular interest to students. Students can repeat this course 3 times for a total of 3 credits.

HHP 330 Nutrition and Human Performance (3 Credits)
This course will explain the purpose of certain nutrients for all types of athletes from recreational to elite, as well as how to determine nutritional needs based on the type of athlete or activity, the impact that nutritional uptake plays on physical performance, how to determine needs for the aging athlete, and any nutritional concerns that may arise when nutritional needs aren't met.
Prerequisite(s): HHP 130 or KINE 350

HHP 331 Nutrition Across the Lifespan (3 Credits)
This course investigates the physiological, biological and biochemical basis of nutritional requirements throughout the lifespan – from preconception, pregnancy and lactation; to infancy, childhood, adolescence, adulthood and older adulthood. It also examines social, environmental, and/or medical factors that may influence nutritional status and needs at each stage.
Prerequisite(s): HHP 130 or KINE 350

HHP 332 Nutrition in Health & Disease (3 Credits)
This course is designed to present both core nutrition information as well as nutrition guidelines regarding the reduction of risk of chronic diseases as well as diet therapy during illness. Coverage of current research topics will elucidate specialty areas and advanced subjects. Another component of this course is to help students of nutrition evaluate information and products available from the media, colleagues, and the marketplace.
Prerequisite(s): HHP 130 or KINE 350
College Curriculum: C200
Domain: CSI

HHP 340 Issues in Health (3 Credits)
Contemporary issues in health are examined. These issues include immunity and AIDS; cancer and genetics; cardiovascular health and assisted suicides and abortion.

HHP 342 Ethics in Human Hlth/Physio (3 Credits)
An introduction to health-related ethical problems and the nature of ethical reasoning. Emphasis upon ethical problem-solving in personal, public, and environmental health for Kinesiology & Health Sciences and Environmental Science/Studies majors.
College Curriculum: C400

HHP 343 Bioethics in Clinical Practice (3 Credits)
This course addresses principles of contemporary health care. Students are introduced to concepts in quality practice and economic issues affecting current health care delivery.

HHP 410 Advanced Topics in Human Health (1-4 Credits)
Topics not covered in regular offerings. Subjects, prerequisites and instructor will vary from year to year.
Prerequisite(s): HHP 320
College Curriculum: C400

HHP 411 Cardiovascular Physiology (3 Credits)
A concentrated study of the normal function of the heart and blood vessels, coordinated responses of the cardiovascular system, and general features of cardiovascular diseases. Class discussion involves a survey of the basic scientific literature in cardiovascular research.
Prerequisite(s): HHP 320 or KINE 304 or BIOL 302 or BIOL 310 or BIOL 345
Domain: NQR

HHP 412 Neuromuscular Physiology (3 Credits)
A detailed study of the neuromuscular system and its exercise-induced adaptations at the cellular and biochemical levels. Topics include the development of the neuromuscular system, organization of motor units, characteristics of different muscle fiber types, substrate utilization and causes of fatigue.
Prerequisite(s): HHP 320 and HHP 300
Domain: NQR

HHP 414 Physiology of Aging (3 Credits)
An introduction to the theories of aging, the physiological changes associated with aging, and common diseases of aging. Class discussion involves a survey of the basic scientific literature in aging research.
Prerequisite(s): HHP 320 or KINE 304
Domain: NQR

HHP 420 Advanced Topics in Physiology (1-4 Credits)
Prerequisite(s): (HHP 320 or KINE 304)
College Curriculum: C400

HHP 430 Adv Topics in Nutrition (1-4 Credits)
Topics not covered in regular offerings. Subjects, prerequisites and instructor will vary from year to year.
Prerequisite(s): (HHP 130 or KINE 350) and (HHP 320 or KINE 304)
College Curriculum: C400

HHP 460 Topics Course (1-4 Credits)
Topics not covered in regular offerings. Subjects, prerequisites and instructor will vary from year to year.

HHP 465 Mentored Student Teaching (1-2 Credits)
This course is a capstone experience where students will assist the instructor during class time and supervise open learning hours in large lecture and laboratory courses.

HHP 470 Independent Study (1-3 Credits)
An independent study program for the advanced student involving reading, research and the writing of a paper.

HHP 480 Research (0-3 Credits)
A course for the advanced student affording an opportunity for independent laboratory or field research under the supervision of a faculty member.

HHP 490 Advanced Research in Human Health (1-4 Credits)
College Curriculum: C400

HHP 495 Honors (3 Credits)
Students admitted to Honors study in HHP will enroll for both semesters of their senior year. Requirements include (a) supervised readings in the field of interest, (b)the preparation and presentation by April 15 of an Honors essay or an Honors thesis based on the students own research, and (c)satisfactory performance in an oral examination based on the Honors project and related background. Consult the chair for eligibility, admission and continuance requirements.

HHP 496 Honors (3 Credits)
Students admitted to Honors study in HHP will enroll for both semesters of their senior year. Requirements include (a) supervised readings in the field of interest, (b)the preparation and presentation by April 15 of an Honors essay or an Honors thesis based on the students own research, and (c)satisfactory performance in an oral examination based on the Honors project and related background. Consult the chair for eligibility, admission and continuance requirements.

HHP 498 Internship (3 Credits)
A structured learning experience designed to complement and expand on the student's academic course work. This course includes readings in related areas, portfolios, written reports and on-site supervision.
College Curriculum: C400