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Course Descriptions

AHP 7000 Human Physiology (4)

Students will develop critical understanding of human physiology. Topics will include cellular processes, tissue composition and histology, and organ system functions. At the end of the course, students will be able to explain physiological concepts across organ systems and relate abnormal physiological mechanisms to disease processes.

AHP 7010 Advanced Human Physiology I (2)

In advanced human physiology, mechanisms of the essential functions of organ systems in humans will be examined. Students will explain physiological concepts in the different organ systems and how these physiological processes change across the lifespan. In the first of two courses, students will cover topics of cell and tissue organization, nervous system physiology, and special senses physiology. The courses in advanced human physiology will prepare students to evaluate abnormal physiology to disease in subsequent courses.

AHP 7020 Advanced Human Physiology II (2)

In advanced human physiology, mechanisms of the essential functions of organ systems in humans will be examined. Students will explain physiological concepts in the different organ systems and how these physiological processes change across the lifespan. In the second of two courses, students will cover physiological concepts of the cardiorespiratory, digestive, endocrine, and urogenital systems. The courses in advanced human physiology will prepare students to evaluate abnormal physiology to disease in subsequent courses. **Prerequisite**: AHP 7010.

AHP 7030 Cell Biology (3)

This course examines organization and functions of cells. Areas covered include dynamics of biological membranes and cellular transport, signaling between cells, and genetics and gene regulation. Knowledge and concepts from this course prepare students to correlate cell function to clinical settings in subsequent coursework.

AHP 7050 Medical Biochemistry (3)

This course examines the biochemical principles that build life. Major concepts will be studied from the perspective of human biochemistry and will include areas of acids/bases, structure and functions of macromolecules, enzymology, mechanisms of regulation, and major metabolic pathways. Knowledge and concepts from this course prepare students to correlate principles of biochemistry to the clinical setting in subsequent coursework.

AHP 7080 Immunology (2)

This course builds understanding of immune responses, with particular emphasis given to consequences of immunity in normal and disease clinical contexts. Functions and mechanisms of innate and adaptive immune responses will be considered, along with factors influencing these activities. From these foundations, immune responses in clinical settings will be studied, including in infectious disease, autoimmunity, allergy, transplantation, immunodeficiency, and cancer.

AHP 7100 Human Gross Anatomy I (3)

Students will develop mastery of the fundamentals of human gross anatomy. As the course progresses, students will be able to explain relationships between anatomical structures, describe relevant functions of structures, and apply this knowledge to appropriate clinical settings in normal and disease conditions. In the first of two courses, students will cover the anatomy of the following regions: back, chest and upper limb, head and neck, and a survey of the neuroanatomy of the central nervous system. Material covered in lectures will be explored during dissections and guided prosections in the co-requisite laboratory. **Co-requisite**: AHP 7101.

AHP 7101 Human Gross Anatomy I Lab (1)

A laboratory course focused on dissection of human cadavers. Students will complete independent and guided dissections to identify structures described in the co-requisite lecture course and to reinforce functional and clinical considerations. Anatomical models, virtual dissections, and instructor-prepared prosections will be used to further enhance and supplement student-led cadaveric dissections. **Co-requisite**: AHP 7100.

AHP 7200 Human Gross Anatomy II (3)

Students will develop mastery of the fundamentals of human gross anatomy. As the course progresses, students will be able to explain relationships between anatomical structures, describe relevant functions of structures, and apply this knowledge to appropriate clinical settings in normal and disease conditions. In the second of two courses, students will cover the anatomy of the following regions: thorax, abdomen, thoracic and abdominal viscera, pelvis, perineum, and lower limb. Material covered in lectures will be explored during dissections and guided prosections in the co-requisite laboratory. **Prerequisite**: AHP 7100. **Co-requisite**: AHP 7201.

AHP 7201 Human Gross Anatomy II Lab (1)

A laboratory course focused on dissection of human cadavers. Students will complete independent and guided dissections to identify structures described in the co-requisite lecture course and to reinforce functional and clinical considerations. Anatomical models, virtual dissections, and instructor-prepared prosections will be used to further enhance and supplement student-led cadaveric dissections. **Co-requisite**: AHP 7200.

AHP 7500 Translational Research (2)

Translational research facilitates the translation of findings from basic science to practical applications that enhance human health and well-being. This course focuses on the research process from problem formulation to analysis and interpretation to application in the healthcare setting. Quantitative and qualitative methodologies are addressed. The fundamental knowledge needed to plan, implement, and evaluate a research study is provided.

AHP 7510 Biostatistics for Health Sciences (3)

This course is a basic introduction to the use of statistics. Topics covered include: descriptive statistics,
probability, sampling estimation, t- and Z-tests, chi-square tests, one-way analysis of variance and regression analysis. Computers will be used for some computation analysis

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AHP 8400 Advanced Pathophysiology (3)

Lecture and discussion of pathologic states common to the health compromised population, necessitating access to the healthcare system, will be offered. Focus will be on primary disease processes of the nervous, endocrine, and respiratory systems, common therapies, and their relationship to restorative and rehabilitative services.