PHYSIOLOGY (PHS)

PHS 1107 Physiology I (3 units)
Course Component: Lecture

PHS 2281 Physiology
Course Component: Lecture

PHS 3341 Physiology of Sensation, Regulation, Movement and Reproduction (3 units)
Part 1 of a comprehensive study of human physiology with an emphasis on regulatory mechanisms. This course includes the biophysical basis of excitable tissues and the physiology of the nervous, muscular, endocrine and reproductive systems. It is assumed that students have a basic knowledge of chemistry, physics and biology.
Course Component: Lecture

PHS 3342 Physiological Regulation of Intake, Distribution, Protection and Elimination (3 units)
Part 2 of a comprehensive study of human physiology with an emphasis on regulatory mechanisms. This course includes the physiology of the cardiovascular, immune, respiratory, renal and digestive systems. It is assumed that students have a basic knowledge of chemistry, physics and biology.
Course Component: Lecture

PHS 4100 Human Physiology and Mechanism of Disease (6 units)
Lectures and discussions of selected topics in pathophysiology. Students will need to have acquired an understanding of normal physiology and the concepts involved therein. Attention will be paid to review of the principles involved in normal physiology. This course will then focus upon the etiology of the diseased state and underscore the causes and mechanisms of deranged physiology, preventative measures and corrective therapy. The topics covered will include the cardiovascular system, the gastrointestinal tract, the respiratory and renal systems, neuromuscular and central nervous function, the endocrine and reproductive systems.
Course Component: Lecture

PHS 4219 Research Project (10 units)
The student will undertake a research project under the supervision of one of the professors within the Department.
Course Component: Research
Permission of the Department is required.

PHS 42191 Research Project (Part 1 of 2)
The student will undertake a research project under the supervision of one of the professors within the Department. (Part 1 of 2)
Course Component: Research
Permission of the Department is required.

PHS 42192 Research Project (Part 2 of 2) (10 units)
The student will undertake a research project under the supervision of one of the professors within the Department. (Part 2 of 2)
Course Component: Research
Prerequisite: PHS 42191. Permission of the Department is required.

PHS 4300 Pathophysiology (3 units)
Etiology of disease states, causes and mechanisms of pathology, preventive measures and corrective therapies.
Course Component: Lecture
Prerequisites: ANP 1105, ANP 1106, ANP 1107.

PHS 4320 Special Topics in Cardiovascular and Renal Physiology (3 units)
Series of lectures and demonstrations covering cardiovascular physiology, with an emphasis on quantitative approaches.
Course Component: Lecture

PHS 43261 Seminars in Physiology (Part 1 of 2)
Course Component: Seminar

PHS 43262 Seminars in Physiology (Part 2 of 2) (3 units)
Course Component: Seminar
Prerequisite: PHS 43261

PHS 4335 Special Topics in Endocrine Physiology (3 units)
Selected topics in endocrinology and the control of metabolic homeostasis in the whole animal including elements of the biological application of systems analysis.
Course Component: Lecture

PHS 4336 Reproductive Physiology (3 units)
Lecture and seminar course with emphasis on human reproduction. The course will cover various aspects of reproduction including gonadal development, ovulation, fertilization, implantation, pregnancy and parturition. The physiological basis of reproductive disorders and reproductive technology will also be covered.
Course Component: Lecture
Recommended prerequisites: ANP1107, ANP1507 or PHS3341.

PHS 4340 Electrophysiology of Excitable Tissues (3 units)
A lecture and demonstration course. Origin and methods of measuring bioelectric potentials will be considered, including voltage clamp methods for measuring current-voltage relationships across cell membranes, an introduction to cable theory, Hodgkin-Huxley equations and the action potential as a travelling wave. Control of ionic channels through biological membranes and the role of active transport across membranes as regulators of the intracellular environment will be considered.
Course Component: Lecture

PHS 4345 Gastrointestinal Physiology (3 units)
Course Component: Lecture

PHS 4355 Renal Physiology (3 units)
Course Component: Lecture

PHS 4360 Pathophysiologie (3 crédits)
Étiologie des maladies, causes et mécanismes des pathologies, mesures préventives et thérapies correctives.
Volet : Cours magistral
Préalables : ANP 1505, ANP 1506, ANP 1507.