

# PHYSIOLOGY (PHSIO)

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PHSIO 510: Physiological Adaptations to Stress

3 Credits

Students will learn how to address problems in physiological adaptations to stress through parallel molecular, cellular, and systemic approaches.

**Prerequisite:** PHSIO571 , PHSIO572

PHSIO 567: Advanced Exercise Physiology

3 Credits

Physiological changes during exercise with emphasis on the effects of physical conditioning and training.

**Prerequisite:** BIOL 472 , EXSCI480

Cross-listed with: KINES 567

PHSIO 571: Integrative and Cellular Mammalian Physiology I

3 Credits

Mammalian cardiovascular, respiratory, renal, and gastrointestinal systems. This course in Cellular and Integrative Mammalian Physiology covers all major aspects of physiology. A special emphasis will be placed on how cellular aspects of physiology are integrated with organ and systems physiology. It is designed for students that either major in Physiology or are interested in integrating physiology concepts into their education. An in depth presentation of membrane biophysics, muscle dynamics, cardiovascular and circulatory regulation, respiratory and renal function, as well as acid base balance are addressed.

**Prerequisite:** BIOL 472

Cross-listed with: BIOL 571

PHSIO 572: Integrative and Cellular Mammalian Physiology II Endocrine Physiology

3 Credits

The course in Cellular and Integrative Mammalian Physiology II covers all major aspects of endocrine physiology. A special emphasis will be placed on how cellular aspects of physiology are integrated with organ and systems physiology. This course is designed for graduate students in the Physiology or Animal Science graduate programs, or students who are interested in integrating physiology concepts into their work in another program. Although there are no prerequisites for the course, prior courses in physiology, endocrinology, and/or biochemistry are beneficial. The course will include the following topics: gastrointestinal physiology, pancreatic hormones and integrated metabolism, hypothalamic pituitary function, thyroid, parathyroid and bone, as well as physiology of growth and lactation. Additional topics will encompass adrenal function, sexual differentiation, male and female reproduction, embryo and adult derived stem cells, aging, obesity, and metabolic syndrome.

PHSIO 577: Cardiovascular Physiology

3 Credits

In-depth study of the heart and circulatory system with emphasis on the effects of exercise on cardiovascular function.

**Prerequisite:** KINES484

Cross-listed with: KINES 577

PHSIO 590: Colloquium

1-3 Credits/Maximum of 3

Continuing seminars which consist of a series of individual lectures by faculty, students or outside speakers.

PHSIO 596: Individual Studies

1-9 Credits/Maximum of 9

Creative projects, including nonthesis research, which are supervised on an individual basis and which fall outside the scope of formal courses.

PHSIO 600: Thesis Research

1-15 Credits/Maximum of 999

No description.

PHSIO 601: Ph.D. Dissertation Full-Time

0 Credits/Maximum of 999

No description.

PHSIO 610: Thesis Research Off Campus

1-15 Credits/Maximum of 999

No description.