

Faculty of Science and Engineering
Department of Biology

Course: BIOL 4320 Vertebrate Endocrinology

Term: Fall

Calendar description: Vertebrate endocrine structure and function; synthesis and regulation of hormones; mechanisms of hormone actions and hormonal integration of physiological processes. Three lecture hours. One term. Three credits.

Prerequisite/corequisite: SC/BIOL 2020 4.0; SC/BIOL 2021 4.0; one of SC/BIOL 2030 4.0, SC/BIOL 2031 3.0.

Degree credit exclusions: HH/KINE 4448 3.0.

Course instructor:

Dr. Chun Peng
416-7362100X40558
329B Life Science Building
cpeng@yorku.ca

Office hours: by appointment

Time and location: M, W 11:30–13:00, SLH C

Course webpage: moodle.yorku.ca

Expanded course description:

Organization of the course:

The course involves formal lectures by the instructor and guest lectures on special topics.

Learning objectives:

Upon successful completion of the course students will be able to:

1. Describe basic principles and concepts of Endocrinology
2. Understand approaches to endocrine research.
3. Describe mechanisms of hormone actions.
4. Understand how hormones regulate various physiological processes.
5. Develop the ability to critically analyze research articles.
6. Understand the consequence of dysfunction of hormones.

Course text/readings: Endocrinology by Hadley and Levine.

Endocrinology [electronic resource]: basic and clinical principles / edited by Shlomo Melmed, P. Michael Conn.

Evaluation:

Midterm test = 25%
Critical review = 15%
Presentation=15%
Final exam = 45%

Exams: Exams will be in-class, consisting of several types of questions (multiple choice, fill in the blank, short and long answers), and will be designed to assess your understanding of lecture materials and ability to apply what you learn to solve problems.

Critical review: The review will be a critique of an article recently published in an endocrine journal. You can select your own article to evaluate and write a 3-page summary and critique.

Presentation: Each student will do a 6-min in class presentation about the research article.

Note: Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

Policies:

Missed tests: Students with a documented reason for missing a test, such as illness, compassionate grounds, etc, which is confirmed by supporting documentation, may request accommodation from the course director. There will be no make-up exam for the mid-term. Deferred standing for final exam will be granted to students who miss the final exam for a valid reason and submit a request within 5 days of the missed exam. Further extension or accommodation will require students to submit a formal petition to the faculty.

Assignment submission: Reviews must be handed in during the class on or before the due date to the course director. No email submission will be accepted. The penalty for late submission is 1 point (out of the 25 points) deduction per day. Exception to the lateness penalty for valid reasons such as illness, compassionate grounds, etc, may be entertained by the course director but will require supporting documentation.

Student conduct: Once class has started, students should not use cell phones or carry out conversations.

Academic integrity:

Students are expected to be familiar with and follow York University's policies regarding academic integrity. Please consult the website below for more details:

<http://www.yorku.ca/academicintegrity/students.htm>

Accommodation Statement:

Students who feel that there are extenuating circumstances that may interfere with their ability to successfully complete the course requirements are encouraged to discuss the matter with the Course Director as soon as possible.

Students with physical, learning or psychiatric disabilities who require reasonable accommodations in teaching style or evaluation methods should discuss this with the Course Director early in the term so that appropriate arrangements can be made.

Planned course topics:

Introduction to Endocrinology
Endocrine Methodology
Mechanism of Hormone Actions
Brain and Pituitary Hormones
Melatonin
Hormonal Regulation of Calcium Metabolism
Gastrointestinal hormones
Pancreatic hormones
Thyroid hormones
Adrenal hormones
Growth hormones
Reproductive hormones