

## Department of Biology Course Outline

### SC/BIOL 4320, Vertebrate Endocrinology Fall 2019

#### Course 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.

#### Prerequisites (strictly enforced)

SC/BIOL 2020 3.00, SC/BIOL 2021 3.00, SC/BIOL 2030 4.00. Course credit exclusion: HH/KINE 4448 3.00.

#### Course Instructor(s) and Contact Information

Dr. Chun Peng  
416-7362100X40558  
329B Life Science Building  
cpeng@yorku.ca  
**Office hours:** by appointment

#### Schedule

M, W 11:30–13:00, CB115

#### Evaluation

Midterm test = 25%  
Article Summary = 15%  
Presentation = 15%  
Final exam = 45%

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

#### Important Dates

First class: Sept 4, 2019  
Last class: Dec 2, 2019  
Last date to add the course without permission of instructor: Sept 17, 2019  
Last date to add the course with permission of instructor: Oct 1, 2019  
Last date to drop the course without receiving a grade: Nov 8, 2019  
**Course Withdrawal:** Nov 9 to Dec 3, 2019 (course still appears on transcript with "W")  
Fall reading week (no class): Oct 12-18, 2019  
Mid-term test: Oct 9, 2019  
Article summary due: Nov 13, 2019

## Resources

**Course webpage:** moodle.yorku.ca

Recommended reading:

Endocrinology / Mac E. Hadley, Jon E. Levine. 6<sup>th</sup> Edition. Available in Steacie library.

Additional resources:

Greenspan's basic & clinical endocrinology. Available in Steacie library.

Vertebrate endocrinology / David O. Norris. Available in Steacie library.

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

## Learning Outcomes

Upon successful completion of this course, students should be able to:

1. Describe basic principles and concepts of Endocrinology.
2. Determine suitable approaches to endocrine research.
3. Illustrate mechanisms of hormone actions.
4. Summarize how hormones regulate various physiological processes.
5. Analyze research articles critically.
6. Evaluate the consequence of dysfunction of hormones.

## Course Content

Lecture Topics:

Sept 4, 9	Introduction
Sept 11	Endocrine methodology
Sept 16, 18	Mechanism of hormone action
Sept 23, 25	Brain and Pituitary Hormones
Sept 30	Melatonin
Oct 2	Hormone and calcium regulation
Oct 7	Gastrointestinal Hormones
Oct 9	<b>Mid-term exam</b>
Oct 14, 16	Reading week, no class
Oct 21	Pancreatic Hormones
Oct 23	Thyroid hormone
Oct 28	Adrenal hormones
Oct 30	Growth hormone and body growth
Nov 4, 6, 11, 13	Reproductive hormones
Nov 18, 20, 27	<b>Student presentations</b>
Nov 25	Special topic
Dec 2	Review

## Experiential Education and E-Learning

Moodle website.

## Other Information

**Exams:** Exams will consist 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.

**Article Summary:** Select a primary research article published within the last 5 years in a scientific journal. The topic should be related to Endocrinology. Summarize the research article and evaluate the significance, originality, and quality of the research. Assess both strengths and weaknesses of the article.

**Presentation:** Each student will do an in-class presentation about the research article. Schedule will be posted on Moodle.

## Course 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. Instead, the weight of the midterm exam will be transferred to the final exam. Deferred standing for final exam will be granted to students who miss the final exam for a valid reason and submit a request within 3 days of the missed exam. Further accommodation will require students to submit a formal petition to the faculty. Documents should be uploaded to:

<http://science.apps01.yorku.ca/machform/view.php?id=84113>

**Assignment submission:** Article summary 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 15 points) deduction per day. Exception to the lateness penalty for valid reasons such as illness, compassionate grounds, etc, may be considered by the course director but will require supporting documentation.

**E-mail policies:** Emails to the course director should include BIOL4320 on the subject line and your name and student number at the end of the email. Emails that do not meet these requirements will not be answered.

**Missed classes:** Class attendance is expected. If you miss a class, it is your responsibility to obtain notes from a classmate.

## University Policies

### Academic Honesty and Integrity

York students are required to maintain the highest standards of academic honesty and they are subject to the Senate Policy on Academic Honesty (<http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>). The Policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and of the student to abide by such standards.

There is also an academic integrity website with comprehensive information about academic honesty and how to find resources at York to help improve students' research and writing skills, and cope with University life. Students are expected to review the materials on the Academic Integrity website at -

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

**Important** A note from the Faculty of Science Committee on Examinations and Academic Standards: Numerous students in Faculty of Science courses have been charged with academic misconduct when materials they uploaded to third party repository sites (e.g. Course Hero, One Class, etc.) were taken and used by unknown students in later offerings of the course. The Faculty's Committee on Examinations and Academic Standards (CEAS) found in these cases that the burden of proof in a charge of aiding and abetting had been met, since the uploading students had been found in all cases to be wilfully blind to the reasonable likelihood of supporting plagiarism in this manner. Accordingly, to avoid this risk, students are urged not to upload their work to these sites. Whenever a student submits work obtained through Course Hero or One Class, the submitting student will be charged with plagiarism and the uploading student will be charged with aiding and abetting.

Note also that exams, tests, and other assignments are the copyrighted works of the professor assigning them, whether copyright is overtly claimed or not (i.e. whether the © is used or not). Scanning these documents constitutes copying, which is a breach of Canadian copyright law, and the breach is aggravated when scans are shared or uploaded to third party repository sites.

### **Access/Disability**

York University is committed to principles of respect, inclusion and equality of all persons with disabilities across campus. The University provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and programs at York University.

Students in need of these services are asked to register with disability services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with each professor to discuss your accommodation needs. Please note that registering with disabilities services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs.

Additional information is available at the following websites:

Counselling & Disability Services - <http://cds.info.yorku.ca/>

Counselling & Disability Services at Glendon - <https://www.glendon.yorku.ca/counselling/>

York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

### **Religious Observance Accommodation**

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. Should any of the dates specified in this syllabus for an in-class test or examination pose such a conflict for you, contact the Course Director within the first three weeks of class. Similarly, should an assignment to be completed in a lab, practicum placement, workshop, etc., scheduled later in the term pose such a conflict, contact the Course director immediately. Please note that to arrange an alternative date or time for an examination scheduled in the formal examination periods (December and April/May), students must complete and submit an [Examination Accommodation Form](#) at least 3 weeks before the exam period begins. The form can be obtained from Student Client Services, Student Services Centre or online at [http://www.registrar.yorku.ca/pdf/exam\\_accommodation.pdf](http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf)

### **Student Conduct in Academic Situations**

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at - <http://secretariat-policies.info.yorku.ca/policies/disruptive-and-or-harassing-behaviour-in-academic-situations-senate-policy/>