

Department of Biology Course Outline

SC/BIOL 4320, Vertebrate Endocrinology Fall, 2020

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
Please send all inquiries and requests for appointments via email to
cpeng@yorku.ca
Office hour: via Zoom by appointment

Schedule/Course Format

Both synchronous (“live” via zoom) and asynchronous (pre-recorded) lectures will be offered. “Live” sessions will be on Mondays or Wednesdays 11:30am to 1pm. Dates of these sessions are listed under course content. Zoom links will be provided on Moodle.

Technology Requirements

Computer, high speed internet, camera, audio capability (microphone)
Zoom software to stream “live” lectures
Final exam may be conducted using Proctortrack, please check this link to get more information about system requirement:
<https://support.edx.org/hc/en-us/articles/360042733973-Proctortrack-System-Requirements>

Evaluation

Midterm 1: 20%
Midterm 2: 20%
Article summary/critique: 20%
Final exam: 40% (or 60% if your final exam mark is higher than at least one of the midterms, the midterm with lower mark will not be counted and the weight will be transferred to the final exam)

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

Important Dates

First class: Sept 9, 2020
Enroll without permission: Sept 22
Enroll with permission: Oct 6
Last day to drop without course on transcript: Nov 6
Course withdrawal period: Nov 7 to Dec 8 (course will appear on transcript with 'W')

Midterm 1: Sept 30
Midterm 2: Nov 2
Last day to submit assignment: 8pm, Dec 7, 2020
Final exam: between Dec 9 to 23, to be arranged by RO.

Resources

Course webpage: moodle.yorku.ca

The website will include announcements, course materials, recorded lectures, and a discussion forum.

Textbook: Endocrinology / Mac E. Hadley, Jon E. Levine. 6th Edition or an earlier edition is recommended, but not mandatory.

Additional Resources:

Endocrinology [ebook]: Basic and clinical principles/edited by Shlomo Melmed, P. Michael Conn.
Greenspan's basic & clinical endocrinology.
Vertebrate endocrinology / David O. Norris.

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

The following topics will be covered:

Sept 9	Introduction to BIOL 4320 (synchronous)
Sept 14	Introduction to Endocrinology
Sept 16	Endocrine Methodologies
Sept 21, 23	Mechanisms of Hormone Actions
Sept 28	Review and Q & A (synchronous)
Sept 30	Midterm 1 (11:30am-12:30pm)
Oct 5, 7	Brain and Pituitary Hormones
Oct 12, 14	Reading Week
Oct 19	Melatonin
Oct 21	Hormones and Calcium Regulation
Oct 26	Gastrointestinal Hormones
Oct 28	Review and Q & A (synchronous)
Nov 2	Midterm 2 (11:30am-12:30pm)
Nov 4	Pancreatic Hormones
Nov 9	Thyroid Hormone
Nov 11	Adrenal Hormones
Nov16	Hormones and Body Growth
Nov 18, 23, 25, 30	Reproductive Hormones
Dec 2	Review and Q & A (synchronous)
Dec 7	Assignment Due

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. Midterm 1 will cover materials from Sept 14 to 28. Midterm 2 will cover materials from Oct 5 to Oct 26. Final exam is cumulative but will focus on materials from Nov between Nov 4 to Nov 30.

Article summary/critique: 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.

Course Policies

Missed tests: There will be no make-up exam for the midterms. Instead, the weight of the midterm exam will be transferred to the final exam. Make-up for the final exam will be arranged. No doctor's note is required.

Assignment submission: Article summary/critique must be submitted via email before 8pm, December 7, 2020. The penalty for late submission is 10% deduction per day. Exceptions to the lateness penalty for valid reasons such as illness, compassionate grounds, etc., may be considered by the course director but requests must be made before the submission deadline.

E-mail policies: Emails to the course director should include BIOL4320 on the subject line and your name and student number in the text. Please use your yorku email account as emails sent from non-yorku accounts will likely end up in the junk folder and not be read by the course director.

Lecture recordings: Synchronous lectures will be recorded and made available to the class. Your participation during "live" sessions will also be recorded. You are not required to use a webcam during these sessions. Private meetings with the course director will not be recorded.

Course materials: All course materials, including lecture notes, recordings, exam questions, etc. are the intellectual property of the course director, unless otherwise stated. They are intended to be used in this course only and should not be shared with anyone outside this class.

Accommodation: If you require any accommodation, please email the course director to discuss.

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 <https://secure.students.yorku.ca/pdf/religious-accommodation-agreement-final-examinations.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-andor-harassing-behaviour-in-academic-situations-senate-policy/>