

Physiology 4620A: Endocrine and Reproductive Physiology

Fall Term 2017

This course covers major themes in reproductive physiology, with an emphasis on the endocrine aspects of reproduction. A major aspect of the lectures in the first half of the course focuses on the regulation and activity of the hypothalamic-pituitary-gonadal axis. In the second half, we focus on fertilization, early embryo development and placentation. Overall, this course has a strong clinical emphasis and we end by inviting a Clinician from the Department of Obstetrics and Gynaecology to engage the class in a discussion that re-emphasizes the clinical aspects of the course.

Lectures:

Tuesday 12:30-2:20 PM
Talbot College, room 204

Requisites:

Prerequisite(s): Physiology 3120, 3130Y and Physiology 3140A; or Physiology 3120 (with a mark of at least 75%) and Physiology 3140A

Senate regulation regarding the student's responsibility regarding requisites:

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Please contact Dr. Watson (Course Manager) if you require material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

2. Instructor Information

Dr. Andrew Watson (Instructor) andrew.watson@schulich.uwo.ca

Dr. Christine Bell Christine.bell@uwo.ca

Dr. A. Hijazi hijazi@uwo.ca

TA: Nicole Edwards [nedwar@uwo.ca](mailto nedwar@uwo.ca)

Teaching Assistant Duties

The Teaching Assistant will attend all lectures and respond in a timely fashion to questions which students have posted on OWL. We use OWL as the main communication tool outside the classroom. Dr. Watson also monitors OWL activities and also responds to students' questions posted on OWL.

Students with OWL issues should contact the Computer Support Centre at 519 661-3800 or fill out the webform:

3. Course Syllabus

Date	Instructor	Topic
=====		
Sept. 12 th	Watson	-Why study reproductive biology? Neuroendocrinology: The HPO Axis
Sept. 19 th	Watson	- Sex Determination/ Sex Differentiation
Sept. 26 th	Watson	- Puberty
Oct. 3 rd	Watson	- Reproductive Cycles

October 10th Fall Student Break Week

Oct. 17 th	Watson- First exam (20%) /Testes
Oct. 24 th	Watson- Ovary/ Take home exam data handed out
Oct. 31 st	Bell -Fertilization (Watson away this week)
Nov. 7 th	Bell- Preimplantation Development
Nov. 14 th	Watson- Implantation/ Take home exam assignment handed in (25%)
Nov. 21 st	Hijazi - Maternal Recognition of Pregnancy
Nov. 28 th	Hijazi - Placentation
Dec. 5 th	Watson- Contraception/ Fertility Treatment

FINAL EXAM PERIOD December 2017 (45%)

SCOPE OF COURSE

Physiology 462a/562a does not attempt to be a comprehensive course in the sense that no attempt is made to cover all aspects of endocrine and reproductive physiology. Rather, aspects of selected topics are examined in depth, with emphasis on current literature.

The format of the course will be a series of lectures and seminars on the selected topics. The topics will be introduced by the Faculty member and then all topics will be considered in class by a general discussion with all class participants.

GENERAL COURSE OBJECTIVES:

A student who has completed Physiology 462a/562a should be able to:

- discuss the current state of knowledge of those areas of endocrine and reproductive physiology covered by the course;
- evaluate critically the problem formulation, methodology, results and conclusions in selected research literature using external criteria (conclusions of others) and internal criteria (appropriateness of methodology, significance of results, consistency of conclusions);
- make hypothetical predictions relating to the implications of the results and conclusions in selected literature.

TEXTS FOR BACKGROUND INFORMATION:

Martin Johnson and Barry Everitt, *Essential Reproduction*.

C.R. Austin and R.V. Short, *Reproduction in Mammals* (several small volumes).

Ernst Knobil and Jimmy Neil (eds.), *The Physiology of Reproduction*.

COURSE EVALUATION

The course evaluation will be broken down as assessed as follows:

First Examination	20%
Mid-term Examination	25%
Final Examination	45%
Mini-quizzes	10%

To comply with the new Western Policy in which 15% of the final grade must be awarded before the end of October; students will be examined **in the first hour of the October 17th week class.** This exam will consist of answering 3 mini-essays ie 1 page each, answering questions based on the first 4 weeks of class material.

The Second examination will be a take-home examination. It will be given to the students at the **October 24th week class**, and must be returned at the **beginning** of the class on **November 14th at 12:30 pm.** The examination will be designed to test the student's ability to meet the course objectives outlined above. Students will be presented with a set of experimental results which must be presented in a published manuscript format. Students will write an abstract (maximum 250 words), introduction (background, rationale, hypothesis/objectives; maximum 2 pages), materials and methods (maximum 1 page), results (maximum 1 page), discussion (maximum 2 pages) and cited literature (maximum of 1 page; 10 references maximum) based on the provided data. **Thus the report must fit within a maximum of 8 single double spaced times roman 12pt font pages.** Three weeks should provide ample time to complete the examination. **As with all examinations, students are expected not to collaborate with others in the completion of the examination.**

Policy on Rounding and Bumping of Grades

Across the Basic Medical Sciences Undergraduate Education programs and within the department of **Physiology and Pharmacology** we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. **Final grades** in this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved and the mark assigned; requests for mark “bumping” will be denied.

Policy on Plagiarism

The Department of Physiology and Pharmacology strongly condemns plagiarism. Plagiarism is the “act or instance of copying or stealing another’s words or ideas and attributing them as one’s own.” (Excerpted from Black’s Law Dictionary, West Group, 1999, 7th ed. Pg 1170 and the definition used by Western’s Scholastic Discipline document). Plagiarism can be intentional or unintentional and regardless of intent, is a scholastic offence. It should be noted that self-plagiarism, plagiarizing one’s own words for multiple assignments is subjected to the same penalty as plagiarizing another. Courses in Physiology and Pharmacology use turnitin, a similarity checking software embedded within OWL. We encourage all students to run their assignments through turnitin prior to submitting their reports for grading. Any report flagged as yellow (25-49% matching text), orange (50-74% matching text) or red 75-100% matching text) will be considered plagiarism (pending investigation by the instructor). It should be noted that a document could be plagiarized yet still pass the similarity check on turnitin.

The **minimum** penalty for a first time plagiarism offence of any kind is a grade of zero on the assignment. In addition, details of the offence will be forwarded to Dean's office and stored. A second offence will carry a much stricter penalty in line with Western's Scholastic Discipline policies

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

In evaluating the second examination consideration will be given to:

- Organization and Content: Was the hypothesis and objectives clearly described? Was a strong rationale for the study clearly built? Was the relevant literature covered well?
- Knowledge of Topic and Related Areas: Did the student understand the data and its application? How well did the student present the topic? Did the discussion actually assess the quality of the results and how the results advanced the field of knowledge? Were the conclusions reasonable and clearly presented? What were the strengths and weaknesses of the study?
- Overall form and structure: Was the information presented to allow a logical presentation of the data and conclusions? Was sufficient space allocated to each section of the paper? [Each paper should not exceed 8 double spaced times roman 12pt font pages in length.]

A number of mini-quizzes will be administered at the beginning of class throughout the term. The questions posed will be readily answerable by those students who have read the papers which are to be covered on that day. Papers citations will be provided at least the week before a given paper is considered in class.

The final examination (date/place/scheduled by Western) and being 2.5hrs in length will consist of a mixture of essay-type (maximum 1 page), short answer (one paragraph) and one word answer questions dealing with the course material and related readings. It will be scheduled during the final examination period.

5. Additional Information/Statements

Statement on Academic Offences

“Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website:

http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf

“All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the

detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).”

Absence from course commitments

A. Absence for medical illness:

Information about “Accommodation for Medical Illness – Undergraduates:

POLICY ON ACCOMMODATION FOR MEDICAL ILLNESS - UNDERGRADUATE

STUDENTS” can be found in the Academic Handbook at

http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf

Students must familiarize themselves with the Policy on Accommodation for Medical Illness: <https://studentservices.uwo.ca/secure/index.cfm>

Statement from the Dean’s Office, Faculty of Science

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Dean's office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the

accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information please see:

<http://www.uwo.ca/univsec/handbook/appeals/medical.pdf>

A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services.

The form can be found at:

https://studentservices.uwo.ca/secure/medical_document.pdf

The Policy on Accommodation for Medical Illness is also available on the BMSUE secure site: <http://www.uwo.ca/bmsc/>

If the student's absence involves the quizzes, the student will speak directly to Dr. Babwah about this matter. Absence related to the Mid-Term, Coursework or Final Exam will be referred to the Dean's Office.

B. Absence for non-medical reasons:

The student must discuss the nature of the non-medical reasons with Dr. Babwah. If the reason is of a private nature, the student will be referred to the Dean's Office and Dr. Babwah will act accordingly based on the Dean's advice. If documentation is required, such documentation must be submitted by the student directly to the appropriate Faculty Dean's Office and **not** to the instructor. It will subsequently be the Dean's Office that will determine if accommodation is warranted.

C. Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents.

A Special Examination must be written at the University or an Affiliated University College no later than 30 days after the end of the examination period involved. To accommodate unusual circumstances, a date later than this may be arranged at the time permission is first given by the Dean of the Faculty. The Dean will consult with the instructor and Department Chair and, if a later date is arranged, will communicate this to Registrarial Services. If a student fails to write a scheduled Special Examination, permission to write another Special Examination will be granted only with the permission of the Dean in exceptional circumstances and with appropriate supporting documents. In such a case, the date of this Special Examination normally will be the scheduled date for the final exam the next time the course is offered.

Support Services:

Registrarial Services: <http://www.registrar.uwo.ca>

Academic Counselling (Science and Basic Medical Sciences): <http://www.uwo.ca/sci/counselling/>

USC Student Support Services: <http://westernusc.ca/services/>

Student Development Services: <http://www.sds.uwo.ca>

Student Health Services: <http://www.shs.uwo.ca/>

Students that are in emotion/mental distress should refer to Mental Health@Western

<http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of option about how to obtain help.