

**Psychology 3525A - Hormones and Behaviour**  
**Department of Psychology**  
**The University of Lethbridge**  
**Fall 2011**

**Location:**

MWF; 12:00-12:50; L1060

**Instructor:**

Dr. Margaret Forgie (Department of Psychology)  
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**Graduate Teaching Assistant:**

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Office Hours: By individual appointment at a mutually convenient time.

**Required Prerequisites:**

The prerequisites for this course are Neuroscience 2600 and one other 2000-level course (3.0 credit hours each) in Psychology or Neuroscience. Regardless of specific background, all students are expected to have a solid foundation in the scientific approach to understanding behaviour, and a willingness to learn about physiological psychology.

**Course Description:**

This course is designed to expand on the material covered at the second year level by providing an in-depth analysis of current theories and research in the field of behavioural endocrinology, which is the study of the relationship between hormones and behaviour. In this course, we will explore the proximate mechanisms via which hormones, and the endocrine organs that produce them, exert actions on the structure and function of the **mammalian** central nervous system and, thus, on behaviour. A wide range of topics will be covered including development, reproduction, parental behaviour, aggression and mood, feeding and drinking, biological rhythms, and stress to name a few. In each case, both the basic biology and physiology of each of the neural/hormonal systems, as well as the patterns of behaviour exhibited by the whole animal, will be addressed. Although attendance at lectures is not mandatory, each student is responsible for any material that is presented in the lecture (content, as well as any announcements etc.) whether or not you choose to attend.

**Required Texts:**

Nelson, R.J. (2011). *An Introduction to Behavioral Endocrinology, Fourth Edition*. Sinauer: Sunderland MA.

Northey, M., & von Anderkas, P. (2011). *Making Sense in the Life Sciences: A student's guide to research and writing*. Oxford University Press: Don Mills, ON.

**Course Information Online:**

**Moodle:** The University of Lethbridge has replaced Blackboard/webCT with Moodle (<https://moodle.uleth.ca/>). For those students that are not familiar with the new Moodle system, I will provide a brief in-class demonstration during the introductory classes (see attached course schedule). Although all tests for this course will be written during class time, I will use Moodle to provide an online grade book to allow you to track your standing in the course. I will also post supplemental material (e.g., information sheets explaining assignment details and any lecture or reading material for topics that are not covered in the Nelson text). **NB: With the exception of extenuating circumstances, I will neither post my powerpoint slides to Moodle nor distribute them in any other way to the class.**

**Email:** My primary method of communicating with you for general notices and points of interest to supplement lecture material will be via email and in-class announcements. Please check your U of L email account on a regular basis, or have that account forwarded to your usual email provider. Please do your best to remember to do regular housekeeping so that you do not miss important notices that relate to this course due to a full mailbox. Any requests for information pertaining to matters of a confidential nature (e.g., your particular standing in the course) must be sent from your U of L account. Please include your student number and your full legal name as it appears on your registration. Please do not abuse the class listserv by sending communications that are not relevant to this course.

**Course Requirements:**

(1) **Exams.** There will be three exams in this course, each of which will account for 15% of your final grade. Exams will be based on both lectures and readings from the text and will consist of short-answer, definition, and multiple-choice questions (see attached course schedule for exam dates). There is no cumulative final exam in this course. **With the exception of extenuating circumstances (e.g., illness), all students must write the exam on the scheduled dates. You must provide supporting documentation (e.g., a doctor's note) should you miss an exam.**

(2) **Oral Presentation.** Students will be responsible for giving a short, conference-length presentation (10 minutes for presentation and 3 minutes for question period). Students will present in groups of three (maximum time for the group is 15 minutes, with length of time strictly enforced by the instructor). This presentation will be worth 20% of your final grade, with 10% accorded to the group and 10% accorded to each individual's contribution. Approaches from all levels of psychological analysis are encouraged (e.g., depending on your interests, you might choose to focus on the molecular processes of hormonal actions or you might choose a topic in clinical endocrinology). All group members are responsible for ensuring that the presentation is a cohesive group effort. Details related to this assignment will be discussed during the introductory classes and in an in-class workshop (see attached schedule). **One member of the group MUST provide me with an electronic copy of your final presentation slides (Keynote or Powerpoint only) by 4:00 pm on the day of your presentation.**

(3) **Abstract Assignment.** As a companion to your presentation each student must submit a written assignment that is adapted from several standard abstracted and annotated formats. The assignment consists of writing a one-page, critical abstract of each of five primary research articles that address the same topic as your presentation. The articles must have been published in a peer-reviewed (refereed) journal within the last six (6) years (i.e., 2005 or later). This assignment will account for 15% of your final grade and will be graded on a pass/fail basis. Students that pass the assignment with their first submission will receive 15%. Students that do not pass the assignment with their first submission will be required to submit a revised assignment to achieve full marks. In other words, everyone can achieve the full 15%. An information sheet for this assignment will be available on Moodle and will be discussed during the

introductory classes (see attached course schedule). **First submission of this assignment is due NO LATER THAN 4:00 pm on the day that you give your presentation. Assignments may be handed in during class time or placed in the dropbox located adjacent to D866.**

(4) Journal Assignment. Each student will submit a written assignment that consists of an essay explaining a single, original research article (the target article) concerning any topic in the area of behavioural endocrinology (i.e., your journal assignment does not have to address the same topic as your presentation and abstract assignment). As with the presentation and abstract assignment, approaches from all levels of psychological analysis are encouraged, and your target article must be a primary research paper that has been published in a peer-reviewed (refereed) journal within the last six (6) years (i.e., 2005 or later). This assignment is worth 20% of your final grade. Following initial grading (according to the grading scheme given below), all students will be given an opportunity to revise their paper for a higher grade. An information sheet for this assignment will be available on Moodle and will be discussed during the introductory classes (see attached course schedule). **First submission of this assignment is due NO LATER THAN Monday, November 14 by 4:00 pm. Assignments may be handed in during class time or placed in the dropbox located adjacent to D866.**

**NB.** Late submissions of the Journal Assignment or the Abstract Assignment will result in a 25% penalty per day. Failure to deliver your part of the in-class presentation will result in a grade of zero percent (0%) for both portions of the mark. Your group will be graded without your result. Students that contribute little to the group presentation will have their mark adjusted accordingly. All assignments will be graded under the assumption that all students have read, and understood, the contents of the second required text by Northey and von Anderkas (2011). In particular, all assignments must be in your own words. Paraphrasing someone else’s words, even if you reference those words, is plagiarism. Plagiarism is a serious academic offense. Any case of suspected plagiarism will be dealt with severely, including the imposition of the maximum penalties allowable (please consult the current U of L Calendar regarding academic offenses).

**Students with Special Needs:**

If you have a documented condition that prevents you from fully participating in this course, including evaluation procedures, it is your responsibility to contact me regarding your individual situation. Please note that no accommodations will be given without an official letter from the Disabilities Resource Centre (<http://www.uleth.ca/ross/disabilities/index.html>).

**Grading Scheme:**

Letter grades will be assigned to final course percentages according to the following scale:

A+ (90+)	B+ (77-79)	C+ (67-69)	D+ (56-59)
A (85-89)	B (73-76)	C (63-66)	D (50-55)
A- (80-84)	B- (70-72)	C- (60-62)	F (< 50)

## Projected Course Schedule - 07-09-11

### Week 1: Sept. 7, 9

Introductory Classes - Explanation of Assignments, Exams and Presentation Requirements (all students are expected to attend these classes. Should you be unable to attend, it is your responsibility to ensure that you understand the course requirements).

### Weeks 2 and 3: Sept. 12, 14, 16\*, 19\*\*, 21, 23

\*Paragraph of Interests Due for Presentations – hardcopy in class

\*\*Groups and Topics assigned/dates Scheduled for Presentations/Workshop on Topics and Presentation Techniques (all students are expected to attend these classes).

Lecture Topics:

Introduction to Behavioral Endocrinology – Chapter 1

Hormones, The Endocrine System, and Brain – Chapter 2

### Weeks 4 and 5: Sept. 26, 28, 30, Oct. 3, 5, 7\*

\*Friday, Oct. 7 – In-class Test I

Lecture Topics:

Sex Differences in Behavior – Foundations – Chapters 3 and 4

### Weeks 6 through 8: Oct. 10\*, 12, 14, 17, 19, 21, 24, 26, 28

\*Monday, Oct. 10 – No Class - Statutory Holiday (Thanksgiving)

Lecture Topics:

Reproductive, Parental, and Social Behavior – Chapters 5 through 8

Student Presentations (dates in bold are suggested dates, exact dates TBA):

Oct. 12, **14** - Student Presentations 1

Oct. 17, **19**, 21 - Student Presentations 2

Oct. **24**, 26, 28 - Student Presentations 3

### Weeks 9 through 11: Oct. 31, Nov. 2, 4, 7\* 9, 11\*\*, 14\*\*, 16, 18

\*Monday, Nov. 7 – In-class Test 2

\*\*Friday, Nov. 11 – No Class - Statutory Holiday (Remembrance Day)

\*\*\*Monday, Nov. 14 - Journal Assignments are due by 4:00 pm in the dropbox.

Lecture Topics:

Regulatory Behaviours and Biological Rhythms – Chapters 9 and 10

Stress – Chapter 11

Student Presentations (exact dates TBA):

Oct. 31, Nov. **2**, 4 - Student Presentations 4

Nov. 14, 16, **18** - Student Presentations 5

Weeks 12 through 14: Nov. 21, 23, 25, 28, 30, Dec. 2, 5, 7, 9\*

\*Friday, Dec. 9 – In-class Test 3

Lecture Topics:

Hormones, Mood and Cognition

Psychopathology of Endocrine Disorders

Selected topics from Chapters 12 and 13, lecture notes, and supplemental readings

Student Presentations (exact dates TBA):

Nov. **21**, 23, 25 - Student Presentations 6

Nov. **28**, 30, Dec. 2 - Student Presentations 7

**Wednesday, December 14 – Abstract and Journal Assignment Revisions are Due by 4:00 pm in the dropbox located adjacent to D866.**