Hormones, Neurochemistry, and Behaviour

PSYCH 4Y03: January - April, 2015

Instructor
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Background and Expectations
This is a senior, high-level course that will demand active student participation. Students should be in 3rd or 4th year of an Honours program and have a solid background in Biology as well as Psychology. Students are expected to attend class regularly.

Course Objectives
We will examine hormonal and neurochemical processes that interact with behaviour in vertebrates, with especial focus on mammalian processes that shed light on human psychology.

Textbook and Readings

Evaluation
1) *Midterm Test*: This is worth 25% of the final grade, and will be held in the normal class hour on Thursday Feb. 12th. It covers all readings and lectures prior to that date.

2) *Essay & Presentation*: Each student will prepare an essay on a unique specialized topic, structured and pre-approved as described in a separate document. Each student is also expected to make a brief oral presentation during one of the tutorials on their topic and to submit a full written essay. This component is worth 35% of the final grade, with 10% for the oral presentation and 25% for the written paper. The deadline for the written essay is March 19th, but it may be submitted at any time before then.

3) *Class and Tutorial Participation*: Students are encouraged to participate actively in classes and especially in tutorials. Attendance at tutorials will be recorded. There may be a brief (one-question) quiz at the beginning of each tutorial. The instructor’s and tutorial leader’s individual appraisal will comprise 10% of the final grade.

4) *Final Examination*: This will be scheduled by the Registrar’s Office, and is worth 30% of the final grade. It will cover lectures and assigned readings for the whole course, but not material in student presentations in the tutorial groups.
Evaluation (continued)

The midterm test can only be written at the time indicated, so plan to attend. There can normally be no make-up tests or special sessions for any student. If you are absent from the university for a minor medical reason lasting fewer than 5 days, you may report your absence, once per term, without documentation, using the McMaster Student Absence Form (MSAF), for components worth less than 30%. When using the MSAF, report your absence to decatanz@mcmaster.ca. You then may be granted relief for the missing course examination. Absences for a longer duration, for other reasons, or where the MSAF does not apply must be reported to the Dean of Studies office for your Faculty (e.g. Science or Social Science) with documentation, and relief from term work only be granted upon their advice. If absence from the midterm test is approved, the value will be assigned to the final examination (i.e., the exam will be worth 55% of the course). The essay and presentation must be completed at some point for credit on these sections; submission of an MSAF for these components will only briefly defer the deadline.

The test and examination will consist of questions in diverse formats, including true-false, multiple choice, short answer, and essay questions, at the instructor's discretion. Grades will be assigned according to the following convention: 90-100% = A+, 85-89% = A, 80-84% = A-, 77-79% = B+, 73-76% = B, 70-72% = B-, 67-69% = C+, 63-66% = C, 60-62% = C-, 57-59% = D+, 53-56% = D, 50-52% = D-, 0-49% = F. Appeal procedures for grading of the midterm test are strictly structured and involve a written submission with a deadline approximately one week following the return of graded tests in class, as will be explained.

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If such modification becomes necessary, reasonable notice will be given with explanation and the opportunity to comment on changes. It is the student’s responsibility to check their McMaster email and the course website weekly during the term and to note any changes.

Attention is drawn to the Statement on Academic Ethics and the Senate Resolutions on Academic Dishonesty. Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on a test or assignment, loss of credit with a notation on the transcript, and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy (http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf).

Schedule of Lecture Topics and Readings (Lecture dates are approximate)

Monday classes from February 2nd to March 30th will be tutorial sessions. On all other Mondays the class will meet for lectures, as we will on all Wednesdays and Thursdays.


January 29 - February 4: Neuroendocrine development, sex differences, and sexual differentiation. Chapters 3, 4

February 5 - 11: Neuroendocrine mechanisms underlying male and female reproductive behaviour. Chapters 5, 6

February 12: MIDTERM TEST (Held in class)

February 25: Pheromones

February 26 - March 4: Parental behaviour. Chapter 7

March 5 - 11: Affiliative and aggressive behaviour. Chapter 8

March 12: Homeostasis. Chapter 9

March 18: Biological rhythms. Chapter 10

March 19: Stress. Chapter 11. ESSAY DEADLINE

March 25 - 26: Hormones, learning, and memory. Chapter 12

April 1 - 6: Neurochemistry and mood. Psychonutrition. Chapter 13

April 8: Endocrine disruptors

FINAL EXAMINATION SCHEDULED BY THE REGISTRAR