PSYC375 Comparative Cognition:
Laboratory in Animal Learning

Instructor: Prof. Mary C. Olmstead
          Office: Craine 403
          Phone: 613-533-6208
          Email: olmstead@queensu.ca
          Office Hours: Thursday 13:00-14:00

Teaching Assistants:

                         Steve Lamontagne
          E-mail: 9sjl7@queensu.ca
          Room: Craine 403
          Office Hours: By appointment

                         Christina Ou
          E-mail: c.ou@queensu.ca
          Room: HH 324
          Office Hours: Wednesday 11:30-13:00

Lectures:
          Day: Monday
          Time: 16:00-17:30
          Location: Ellis 324

Laboratory Sessions:
Section 2
          TA: Christine Ou
          Day: Wednesday
          Time: 10:00-11:30
          Location: HH 223

Section 3
          TA: Steve Lamontagne
          Day: Friday
          Time: 13:00-14:30
          Location: HH 132

Section 4
          TA: Steve Lamontagne
          Day: Friday
          Time: 10:00-11:30
          Location: HH 132

Course Description:

This course covers recent research in comparative cognition at an advanced level. Emphasis will be placed on critically evaluating scientific controversies in specific topics, such as episodic memory in animals, mechanisms of spatial navigation, and value-based decision-making. Laboratory sessions will explore the principles discussed in lectures through hands-on experience.

Learning Outcomes:

With successful completion of Psychology 375, students will be able to:
- Identify and discuss primary areas of research in comparative cognition.
- Determine the relationship between cognitive processes and operational definitions of behavior in animal models.
- Design an experimental protocol to test a novel hypothesis of cognition in nonhuman animals.
- Effectively communicate the rationale, methodology, results, and implications of an independent study.
- Describe how to use experimental analysis of behaviour to evaluate changes in cognitive processes.

Course Website:
All communication related to this course, including on-line activities, quizzes, and grades will be posted on the course website. Access to this site is restricted to students who are registered in this course. Please check this regularly throughout the term. In addition, course announcements are sent through Queen's email addresses so it is important to access this account on a regular basis throughout the term.

Textbook:
All students should purchase or have access to the following textbook:
    Olmstead, M.C., & Kuhlmeier, V.A. (2015). *Comparative Cognition*. Cambridge, UK: Cambridge University Press*.*
The text is available through the campus bookstore.

Individual readings, relating to specific class topics, will be made available on the course website.

Laboratory Sessions
Laboratory sessions are an integral part of PSYC 375. Students are required to attend all scheduled lab sessions and to complete each assignment as specified in the lab manual. The lab instructors will explain the requirements and marking scheme for each assignment during the first lab session.

Evaluation

In-Class Tests (20%)
There will be 2 in-class tests, each worth 10% of the final mark. Each test will take 1 hour and must be written during class time. These tests will consist of short answer questions with all of the test material based on the course readings and in-class presentations. The

material covered in each test is non-cumulative, so test 1 will cover material from the first half of the course and test 2 from the second half of the course. The dates for these tests are listed in the class timeline below. **THERE ARE NO RE-WRITES FOR THE IN-CLASS TESTS.** If a student misses a test and provides written documentation for their absence (e.g. medical note, death certificate), the remaining test will be recalculated to constitute 30% of their final mark. If students miss both in-class tests, they must write a final exam, worth 30% of their final mark covering material from the entire course. The exam will be written during the Dept. of Psychology make up exam at the beginning of the next term.

Group Project (20%)
Students will work in groups of 5-12 (depending on the total course enrollment) to cover one of the Lecture topics listed below. The assignment will consist of three parts.

> First, each group will present the topic to the rest of the class using powerpoint slides, video clips, or any other appropriate format. The presentation should be 20-30 minutes with up to an additional 10 minutes for questions. A brief list of resources for each topic is loaded on the course website; these are only suggestions and groups may choose not use some or none of these resources. Either way, each group is expected to include other resources NOT on this list as they are preparing their presentation. (10%)

> Second, each group will prepare a document (2 pages maximum, double spaced using 12 point font) that summarizes the important points in the topic. This may include background information, definitions, summaries of critical findings in the field, etc. The document will be made available to the entire class, which they can then use to study for the in-class tests. The document should be mailed directly to the instructor by the end of the class. (5%)

> Third, your group will submit a 1-page document that includes the following: 1) five short answer questions based on your topic that could be used on one of the in-class tests and 2) an annotated bibliography that includes the most important sources you used to prepare your presentation. The number of items in your bibliography will vary depending on the topic, but you should have at least five and up to fifteen sources. The 'annotated' part of the bibliography describes, in 4-5 sentences, why the paper is important for your topic. Examples of annotated bibliographies for each topic are available on the course website. The document should be mailed directly to the instructor by the end of the class. (5%)

Topics:
> Memory
> Associative Processes
> Spatial Navigation
> Decision Making
> Categorization and Concept Formation
> Models of Neuropsychiatric Disorders
> Canine Cognition

Laboratory Sessions (60%)

Lab #1:	2.5%
Lab #2:	15%
Lab #3:	2.5%
Lab #4:	6%
Lab #5:	8%
Lab #6:	11%
Presentation	10%
Effort/Participation:	5%

The details for the mark breakdown for each lab are provided in the lab manual.

Note on Late Assignments
READ THIS CAREFULLY. All laboratory assignments for this course are to be submitted on-line. These are due at the BEGINNING of the lab session so the due dates of each assignment will vary. For example, students in a lab section that starts on Wednesday at 9 am must submit their lab report for that week by Wednesday at 9 am, whereas students in a lab section that starts on Thursday at 3 pm must submit their lab report for that week by Thursday at 3 pm. The course website is set up to accept assignments on an ongoing basis but anything submitted after the beginning of a lab session will be marked as late. Assignments submitted within 24 hour of the deadline will receive a 10% deduction and a further 10% will be deducted for each subsequent day that the assignment is late. mStudents should be familiar with the submission process for each assignment in advance of the assignment deadline. Students are responsible for ensuring effective internet connection in order to participate in the course and to submit assignments. An inability to access the internet at the time of an assignment deadline is NOT an acceptable excuse for submitting an assignment late.

Policy on Exams:
According to university regulations, students must be available to write scheduled exams at any time during the official examination period, as well as during any scheduled class. Requests to write a make-up exam because of conflicting activities (e.g., travel plans, volunteer work) will NOT be accommodated, except under extraordinary circumstances and with appropriate documentation.

Request for Academic Accommodation:
Students registered with Queen's Health, Counseling, and Disability Services who require alternative accommodation for exams and/or assignments should notify the TA as soon as possible. Please consult Queen's Disability Service for more information: http://www.queensu.ca/hcds/ds/students/accommodations.htm.

Academic Integrity:

"Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see http://www.academicintegrity.org/fundamental_values_project/index.php). These values are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the 'freedom of inquiry and exchange of ideas'

essential to the intellectual life of the University (see the Senate Report on Principles and Priorities)

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see Academic Regulation 1), on the Arts and Science website (see http://www.queensu.ca/artsci/academics/academic-integrity), and from the instructor of this course.

Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university."

Grade Conversion:

All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Faculty of Arts and Science Official Grade Conversion Scale:

Queen's Official Grade Conversion Scale

Grade	Numerical Course Average (Range)
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 and below