

**Psychology 205:  
Introduction to Comparative Cognition  
2015F**

**Instructor:** Prof. Mary C. Olmstead  
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Office Hours: Tuesday 1-3 pm

**Lectures:**  
Day: Wednesday  
Time: 11:30-13:00  
Location: Ellis Auditorium

Lecture Outlines (in Word format) will be available for download on Moodle prior to 8:00 am on the morning of lecture days.

**Teaching Assistant:** Amanda Maracle  
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Room: Craine 403  
Office Hours: By appointment

**Teaching Assistant:** Rebekah Wickens  
E-mail: Rebekah.wickens@queensu.ca  
Room: Craine 407  
Office Hours: Tuesdays 1:30-2:30

**Group Activity Sessions:**

Section 2	Amanda Maracle
Day:	Friday
Time:	10:00-11:30
Section 3	Rebekah Wickens
Day:	Thursday
Time:	13:00-14:30
Section 4	Rebekah Wickens
Day:	Thursday
Time:	11:30-13:00
Section 5	Amanda Maracle
Day:	Friday
Time:	13:00-14:30

Location: Ellis Hall 333

**Course Description:**

This course provides an introduction to the interdisciplinary field of comparative cognition for undergraduate students with an interest in the evolution and function of cognitive processes across animal species. Through a combination of in-class lectures, in-class group activities, textbook reading, and online activities, topics such as memory, navigation, decision-making, theory of mind, prosocial behaviour, and communication will be discussed. With successful completion of this course, students will have a fundamental knowledge base that will promote critical thinking outside of the classroom as well as support learning in advanced psychology, biology, and neuroscience courses.

**Learning Outcomes:**

With successful completion of Psychology 205, students will be able to:

- Recognize and recall experimental findings that support or do not support existing theories in comparative cognition.
- Apply theories to predict outcomes of experimental manipulations.
- Engage in critical reading of primary and secondary sources.
- Combine critical reading skills and conceptual knowledge of comparative cognition to create a review of experimental findings for a broad audience.

**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.

**Evaluation:**

On-line Quizzes	10%
Midterm Exam	20%
Final Exam	30%
Group Activities	20%
Paper	20%

**On-line Quizzes (10%)**

Each module, with the exception of Module 6, will include a short on-line quiz (3-5 multiple choice questions). The first quiz (Module 1) will be completed after the first in-class meeting but all remaining quizzes must be completed through the course website BEFORE the lecture. The quizzes are open book and are designed to test knowledge of the reading material for that module. Students will have 15 minutes to complete each quiz: each quiz

will remain open for 24 hours. Check the course timeline for specific details of the dates and times for each quiz. At the completion of the term, the lowest quiz mark will be dropped and a final cumulative mark on the remaining 10 quizzes will constitute 10% of the final grade.

### **Midterm Exam (20%)**

All students are required to write an in-class midterm exam, worth 20% of their final mark. The midterm exam material will cover the first 5 modules of the course, with questions based on both the lectures and assigned textbook. The exam will include multiple-choice and both short (1-2 paragraphs) and long (5-6 paragraphs) answer questions. There are no re-writes for the midterm exam. Students who miss the midterm exam will write a final exam worth 50% of their mark.

### **Final Exam (30%)**

All students are required to write a 3-hour final exam, worth 30% of their final mark, that will be scheduled during the end of term exam period. The final exam material will cover the entire course, with questions based on both the lectures and the assigned textbook. The exam will include multiple-choice and both short answer (approximately 1 paragraph of 3-5 sentences) and long answer (approximately 2-4 paragraphs) questions.

### **Group Activities (20%)**

All students are required to participate in the weekly group activity sessions. Participation in these group activities will be evaluated as follows:

#### *Pre-meeting on-line activities (5%)*

For five of the modules of the course, students will participate in on-line polls, questions, or short activities related to the topics in that module. See the course timeline for specific dates of these activities. One mark will be allotted for completion of each pre-meeting on-line activity.

#### *Group preparation of review questions (10%)*

In one group activity session, students will work with other group members to produce sample exam questions based on the ICE acronym (Information, Context, Extension). These will be assessed by the instructor and/or TA and all students in the group will receive the same mark for this assignment.

#### *Peer Assessment of Group participation (5%)*

Each student will receive a participation mark for their contribution to 5 different in-class group activities. See the course timeline for specific dates of these activities. These marks will be based on the confidential evaluation of other group members. The marks of all student evaluators will be averaged across the 5 sessions to yield a final mark worth 5%. Students will only receive their mark for participation if they submit participation marks for other group members.

### **Paper Assignment (20%)**

Students will create a 1-2 page blog or newspaper article, based on a research article but geared to the general public. The goal of this assignment is to translate scientific research into language that is interesting and accessible to a lay audience. The paper is worth 20% of the final grade, divided up as follows:

*Writing plan (5%)*

Each student will prepare a writing plan for their paper that is due later in the term. (See the course timeline for specific dates.) The writing plan should include the subject of the paper as well as an outline for the main topics to be discussed. Read the document on Science Communication: Written Assignment for specific requirements of this assignment. The writing plans, submitted on line, will be evaluated (anonymously) by three other students in the class. These marks will be averaged to yield a final mark of 5% for this assignment. Students will only receive their mark for the writing plan if they submit evaluations of the writing plans assigned to them.

*Paper (10%)*

Each paper will be assessed, by the TA and/or instructor, using the criteria for successful popular science writing, as discussed during the active learning sessions. Read the document on Science Communication: Written Assignment for specific requirements of this assignment.

*Evaluation of Peer Review (5%)*

Each student will read and provide anonymous feedback on papers written by three other students. The feedback, submitted on-line, specifically asks students to comment on the strengths and weaknesses of each paper, according to the criteria for successful popular science writing discussed in class. The reviews will include comments, but students will not be providing a mark for other students' papers. Each student will submit three peer reviews: these peer reviews will be marked by the TA and/or Instructor. Students who do not submit peer reviews will not receive a mark for this portion of the paper assignment.

**Note on Peer Review in this course**

Within the grading scheme described above, a total of 10% of a student's final mark is based on how evaluation from other students in the class: 5% for group participation and 5% for peer evaluation of the paper writing plan. An additional 5% of a student's final mark is based the Instructor/TA's evaluation of his/her review of three other students' papers.

**Note on Late Assignments**

Deadlines for all assignments are listed on the course timeline. **READ THIS CAREFULLY.** All assignments for this course are submitted on-line. Students 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. A late penalty of 10% per day (including weekends) will be applied to all late assignments.

**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. Students are advised to wait until the final exam schedules are posted before making any travel arrangements.

Students who cannot write an exam during the final exam period due to a serious, extenuating circumstance must be available to write a deferred exam during the Psychology **Department's Make up Exam period:**  
<http://www.queensu.ca/psychology/Undergraduate/psycdepartmentalpolices.html>

Please see the following webpage under "Exam Absence" for additional information: <http://www.queensu.ca/psychology/Undergraduate/psycdepartmentalpolices.html>

**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.

Students who require academic accommodation for the final exam should consult Queen's Disability Service to arrange this process:

<http://www.queensu.ca/hc/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](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."

**Queen's Copyright Information:**

"This material is copyrighted and is for the sole use of students registered in Psychology 205. This material shall not be distributed or disseminated to anyone other than students registered in Psychology 205. Failure to abide by these conditions is a breach of copyright, and may also constitute a breach of academic integrity under the University Senate's Academic Integrity Policy Statement."

**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

Module	Reading	Date	Pre-Meeting Online Activity	Class Meeting	Post-Meeting Activity
1	Chapter 1	Sept. 16, 2015		Lecture 1: Introduction and History of Comparative Cognition	Quiz #1
		Section Meeting	Online activity: What is the smartest animal?	Group Activity 1: Introduction. Group activities related to 'what is the smartest animal?'	
2	Chapter 2	Sept. 23, 2015	Quiz #2	Lecture 2: Sensory Systems	
		Section Meeting	Online reading: Science Communication	Group Activity 2: Science Communication	Read paper assignment instructions and select topic for Science Communication written assignment
3	Chapter 3	Sept. X, 2015	Quiz #3	Lecture 3: Memory	
		Section Meeting	Online activity: Working memory test	Group Activity 3: Measuring different types of memory in humans and animals	Peer evaluation of group participation
4	Chapter 4	Sept. X, 2015	Quiz #4	Lecture 4: Associative Processes	
		Section Meeting	Online reading: ICE questions	Group Activity 4: Introduction to ICE, development of exam questions	Submit group assignment: review questions for Chapters 1-5

Module	Reading	Date	Pre-Meeting Online Activity	Class Meeting	Post-Meeting Activity
5	Chapter 5	Oct. X, 2015	Quiz #5	Lecture 5: Orientation and Navigation	
		Section Meeting		Group Activity 5: Exam review using student-created I, C, & E level questions on material from Chapters 1-5	Peer evaluation of group participation
6		Oct. X, 2015		<b>Mid term Exam</b>	
		Section Meeting			
7	Chapter 7	Oct. X, 2015	Quiz #6	Lecture 6: Decision Making	
		Section Meeting	Preparation for Group Activity: Select target journal article and find supplementary articles to be used in paper assignment	Group Activity 7: Discussion of rubric for Science Communication assignment. Creation of writing plan for paper assignment.	Submit writing Plan. Peer-review of writing plans
8	Chapter 9	Oct. X, 2015	Quiz #7	Lecture 7: Categorization and Concept Formation	



		Section Meeting	Online activity: Categorization	Group Activity 8: Measuring categorization across species	Peer evaluation of group participation
Module	Reading	Date	Pre-Meeting Online Activity	Class Meeting	Post-Meeting Online Activity
9	Chapter 10	Nov. X, 2015	Quiz #8	Lecture 8: Social Competence	
		Section Meeting		Group Activity 9: Domestication and social cognition	
10	Chapter 11	Nov. X, 2015	Quiz #9	Lecture 9: Prosocial Behaviour	<b>Science Communication Paper Due</b>
		Section Meeting	Online activity: Prosocial behavior	Group Activity 10: Economic games	Peer evaluation of group participation
11	Chapter 12	Nov. X, 2015	Quiz #10	Lecture 10: Communication	
		Section Meeting	Online activity: Watch Introduction, Project Nim, and epilogue, complete	Group Activity 11: Discussion of Project Nim	<b>Peer evaluation of Science Communication paper</b>
12	Chapter 13	Nov. X, 2015	Quiz #11	Lecture 11: Social Learning and Tool Use	

		Section Meeting		Group Activity 12: Group activity 'create your own animal'.	Peer evaluation of group participation
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