PSYC 205
INTRODUCTION TO COMPARATIVE COGNITION
FALL 2012

Course Details

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Office Hours: Thursday 15:00-16:00

Lectures: Tuesday 14:30-16:00
Location: Biosciences 1103

Calendar Description

The evolution and function of cognition across species, ranging from invertebrates to humans. Topics include perception, attention, associate mechanisms, categorization, decision making and memory. Each will be examined from a comparative and biological perspective. Laboratory exercises complement topics to be covered in the lectures.

Course Objectives

This course provides an introduction to the field of comparative cognition. It begins with an historical view of the field, emphasizing the synergy of different disciplines, both in terms of theoretical foundations and methodological tools. The lectures, reading material and laboratory exercises all emphasize the same principles. These include an understanding of:

• how evolution has shaped cognition.
• how species comparisons can inform discussions of both the function and mechanisms of cognition.
• how experimental techniques, both in the field and in the lab, are used to examine cognitive processes.
Readings and Lectures

There is no formal textbook for this course. The reading material for each lecture is loaded on Moodle under the topic ‘course notes’. Students are required to read these notes on your own; the lectures will NOT repeat the material provided in the course notes. Lectures will be devoted to explaining difficult concepts from the course notes and providing supplementary information such as detailed figures, demonstrations, and on-line videos. The most effective way to learn the course material is to read each chapter BEFORE the lecture. The first portion of each lecture will be devoted to answering questions about the assigned reading. Once you have read the material, you can submit questions directly to the instructor via email: olmstead@queensu.ca. Put ‘Psyc205 question’ in the subject line of the email but do not expect a personal response to these questions. Questions submitted at least 24 hours prior to the lecture will be addressed during the next class.

Supplementary Reading

In addition to the fundamental course material, there are seven separate readings loaded on Moodle under the topic ‘Supplementary Readings’. These are organized according to the topics covered in the course: three for the first section on History, Sensory Systems, and Memory; two for the second section on Associative Mechanisms; and 2 for the final section that covers more complex cognitive processes such as Categorization and Concept Formation. The supplementary material is geared to the students who wish to pursue one or more of the topics covered in the course material and lectures. None of the material from these readings will be tested in either the in-class tests or final exam.

Laboratory Sessions

Laboratory sessions are an integral part of PSYC 205. 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 (15% of final mark each; total 45%)
There will be 3 in-class tests, each worth 15% of your final mark. These tests will consist of multiple choice and short answer questions (1-2 marks each). All of the test questions will be based on the course notes and lectures (i.e. not the labs). The material covered on each test is non-cumulative. Thus, test 1 covers material from lectures 1-3; test 2 from lectures 4-6; and test 3 from lectures 7-9. Each test will last 60 minutes and must be written during class time. The dates for these tests are listed in the class schedule below.
There are no re-writes for the in-class tests. If a student brings valid documentation from a health professional, funeral home, team coach, etc., the percentage of the missed test will be divided across the remaining two in-class tests. That is, each of these two tests will be worth 27.5%. Students who miss two of the in-class tests are required to write the final exam. Please contact Dr. Olmstead AS SOON AS POSSIBLE if you are unable to attend a test or immediately after the test if you have missed one.

**Optional Final Exam (45% of your final mark)**
The 3-hour final exam, scheduled during the exam period, will consist of multiple choice and short answer questions from the entire course. Students who miss at least two of the in-class tests, must write the final exam. Marks for the exam and in-class test will be calculated in two ways: 45% from the final exam AND 15% from the in-class test plus 30% from the final exam. The final mark will be the higher mark of these two calculations.

You may opt to write the final exam even if you have written 2 or 3 of the in-class tests. Whichever mark is higher (the final exam or the combined in-class tests) will make up 45% of your final mark. In other words, a final mark can ONLY increase for those students who opt to write the final exam.

Students who are unable to write the final exam during the December exam period due to a serious, extenuating circumstance (with the supporting documentation required as outlined above) must be available to write a deferred exam during the Psychology Department’s Make up Exam period January 11th/12th, 2013.

Please see the following webpage under “Exam Absence” for additional information: [http://www.queensu.ca/psychology/Undergraduate/psycdepartmentalpolicies.html](http://www.queensu.ca/psychology/Undergraduate/psycdepartmentalpolicies.html)

**Laboratory Sessions (55% of final mark)**

<table>
<thead>
<tr>
<th>Lab</th>
<th>%</th>
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<tbody>
<tr>
<td>Lab #1</td>
<td>2.5%</td>
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<tr>
<td>Lab #2</td>
<td>15%</td>
</tr>
<tr>
<td>Lab #3</td>
<td>2.5%</td>
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<tr>
<td>Lab #4</td>
<td>7%</td>
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<tr>
<td>Lab #5</td>
<td>8%</td>
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<tr>
<td>Lab #6</td>
<td>10%</td>
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<tr>
<td>Presentation</td>
<td>5%</td>
</tr>
<tr>
<td>Effort/Participation</td>
<td>5%</td>
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</tbody>
</table>

*See lab manual for details of mark breakdown.*
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 Official Grade Conversion Scale:

**Queen’s Official Grade Conversion Scale**

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

**Request for Academic Accommodation**

If you need academic accommodation for the final exam or special class room arrangements please visit Queen’s Disability Service at: [http://www.queensu.ca/hcds/ds/students/accommodations.html](http://www.queensu.ca/hcds/ds/students/accommodations.html).

**Academic integrity**

Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see [http://www.academicintegrity.org](http://www.academicintegrity.org)). 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 at: [http://www.queensu.ca/secretariat/policies/senate-andtrustees/principlespriorities.html](http://www.queensu.ca/secretariat/policies/senate-andtrustees/principlespriorities.html)

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 http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations/regulation-1), on the Arts and Science website (see http://www.queensu.ca/artsci/academics/undergraduate/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.

Copyright of Course Material

All of the course material is for the sole use of students registered in PSYC 205. This material shall not be distributed or disseminated to anyone other than students registered in this course. 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.
Lecture Schedule

Sept. 11th  History of Comparative Cognition
Sept. 18th  Sensory Systems
Sept. 25th  Memory

Oct. 2nd    TEST 1

Oct. 9th    Associative Processes: Classical Conditioning
Oct. 16th   Associative Processes: Operant Conditioning
Oct. 23rd   Associative Processes: Neural Mechanisms

Oct. 30th   TEST 2

Nov. 6th    Categorization and Concept Formation
Nov. 13th   Navigation and Orientation
Nov. 20th   Choice and Decision Making

Nov. 27th   TEST 3

Exam Period  FINAL EXAM