PSYC 271 - Brain and Behaviour I Syllabus

Term Dates and Exam

Winter Term: Jan 5 - Apr 2, 2015
Examination Period: Apr 9 - 25, 2015

Course Description

An introduction to behavioural neuroscience. The course primarily focuses on the basics of neuronal operation, functional neuroanatomy, neuropharmacology, and behavioral neuroscience methods. This will be followed by an examination of input (sensory) and output (motor) systems of the brain. Finally, topics relevant to lateralization of function and language will be covered.

Prerequisite: PSYC 100/6.0

Course Introduction

PSYC 271 is a course designed to introduce you to the field of Behavioural Neuroscience. This course initially focuses on the basics of how neurons function, neuroanatomy, neurophysiology, behavioural neuroscience methods, genetics and evolution. This will be followed by an examination of the sensory and motor systems and finally, topics relevant to lateralization of function will be covered.

What does taking this course look like? Each unit is made up of a set of resources including:

- textbook readings
- unit course notes
- online videos, demonstrations or exercises from the textbook website and other websites

Throughout the course, as well as the textbook, four major themes are repeated and should be kept in mind when studying the material.

- Thinking creatively or thinking in productive, unconventional ways is the cornerstone of science and there are many research examples of this principle in Biopsychology.
- Much of what we have learned about the brain has come from various patient populations, so this course also has strong clinical implications that highlight the interplay between brain dysfunction and biopsychology.
- There is also an important evolutionary perspective that must be considered in biopsychological research, especially with comparative studies.
- Finally, the principles of neuroplasticity will be introduced: that the brain is a ‘plastic’ organ that grows and responds to an individual’s genes and environment.

Learning Outcomes

This course has a two-part learning objective.
First, you will gain a working knowledge of basic brain terminology and functioning. This information can then be used to gain an understanding of how the brain is able to process complex information and respond accordingly.

Second, you will learn about theories developed to explain how the brain works and also how scientists study the brain in order to assess these theories.

Biopsychology is very multidisciplinary and our body of knowledge comes from various fields of study, including physiological psychology, neuropsychology, neurology and neuroimmunology. By combining research ideas from all of these disciplines, a more complete picture of the brain is beginning to emerge. I say beginning because the brain is truly a challenge for scientists to understand, as its ability to evolve and adapt is so great. I believe understanding the brain and its role in behaviour is the ultimate challenge for science!

### Key Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Jan 5</td>
<td>Winter Term classes begin</td>
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<tr>
<td>Jan 16</td>
<td>Last day to add courses</td>
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<td></td>
<td>Last day to drop courses without financial penalty</td>
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<tr>
<td>Feb 27</td>
<td>Last day to change exam centre location</td>
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<td></td>
<td>Last day to drop courses without academic penalty</td>
</tr>
<tr>
<td>Apr 2</td>
<td>Winter Term classes end</td>
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<tr>
<td>Apr 9 - 25</td>
<td>Examinations</td>
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### Suggested Time Commitment

To complete the readings, assignments, and course activities, students can expect to spend on average, about 15 - 18 hours per week on the course.

### Students Traveling Overseas

For students who will be out of Canada for the duration of the term, please note that we have had instances in the past where certain Web sites that are required to complete the online courses, including Moodle, have been blocked intermittently in some countries (e.g. China). If the course you enroll in requires the completion of online quizzes or exams, this may pose an impediment to you successfully completing the course. We do not make accommodations based on the lack of reliable Internet access. It is your responsibility to make sure that you will have adequate high speed Internet coverage for the entirety of the term.

### Required Materials

Available from the Queen's Campus Bookstore:
• *Biopsychology*, 9th Edition, by John P.J. Pinel, with accompanying MyPsychLab access code (online study resource)

If you wish to buy access to MyPsychLab separately:

• MyPsychLab standalone access code card (includes ebook) ISBN: 020598827X - Available from Queen's Campus Bookstore
• MyPsychLab standalone access code card (without ebook) - Purchase online through [https://pearsonmylabandmastering.com](https://pearsonmylabandmastering.com) when registering

Please see the MyPsychLab Student Registration Instructions for more information on MyPsychLab access. The Course ID is valsangkar-smyth14897. The textbook website has online videos, simulations and review quizzes which can be found on the Course Homepage under ‘Study Plans and Course Content’ and ‘The Brain’ and are divided by each chapter in the textbook.

**Evaluation**

<table>
<thead>
<tr>
<th>Evaluation Item</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Group Discussion/Report</td>
<td>20%</td>
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<tr>
<td>Assignment 1</td>
<td>10%</td>
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<tr>
<td>Assignment 2</td>
<td>10%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>60%</td>
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</tbody>
</table>

**Group Discussion/Report**

Each student will be required to participate in a Group Discussion Assignment. This assignment consists of 3 parts: uploading an original post onto a discussion forum, posting comments on the forum and submitting an individual report. In total, this group project will be worth 20% of your final grade. For more details on this Group Discussion Assignment, please look under the icon on the Moodle Course Homepage.

**Assignments**

Over the course of the term, students must complete 2 written assignments. These assignments consist of 3 long-answer/essay questions with each question covering one Unit. Each question will be marked out of 10 and for each of these questions, I would expect a 1-2 page (double-spaced) answer. Please be as clear and concise as possible and remember to explain or define scientific terms (cannot assume the reader knows all of them). While each assignment will be marked out of 30 marks, each are worth 10% of your final grade. Assignment 1 will have questions on Units 2,3,4 while Assignment 2 will cover Units 6,7,8.

**Final Exam**
The 3-hour final exam will be written during the Exam Period (April 9-25). It will consist of 120 Multiple Choice Questions, covering the entire course and is worth 60% of your final grade.

**PLEASE NOTE:** You must PASS the final exam in order to pass the course.

Once the exam schedule has been finalized the exam date will be posted on your SOLUS account. Students living in the Kingston area will write their final exam on Queen's campus. Students writing off campus will receive an email to their Queen's email account with full details of date/time/location of their exam. Please note: off campus exams will be held on the same day as Kingston exams, but the **start time** may vary slightly due to the requirements of the off-campus exam centre.

When you registered for the course, you indicated the exam centre location. If you do not remember the exam location you chose, or if you wish to change your exam location, please email: cds@queensu.ca or call 613-533-3322. The deadline for changing your exam centre can be found at [http://www.queensu.ca/artsci_online/e-learning/completing-your-course](http://www.queensu.ca/artsci_online/e-learning/completing-your-course). You must request the change prior to this deadline or you will be subject to a non-refundable administrative fee of $100.00 per exam.

All special needs students should contact CDS, immediately following registration to inform them of any special accommodations which may be required for proctored exams. For further information regarding exams, see: [http://www.queensu.ca/artsci_online/e-learning/completing-your-course](http://www.queensu.ca/artsci_online/e-learning/completing-your-course)

**Accommodations**

**PLEASE NOTE:** If you require special accommodations for the assignments, please contact the instructor within the first 2 weeks of the course.

*Queen's University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact the Disability Services Office (DSO) and register as early as possible. For more information, including important deadlines, please visit the DSO website at:* [http://www.queensu.ca/hcds/ds](http://www.queensu.ca/hcds/ds)

**Grading**

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:

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

**Moodle Announcements and News**

The instructor will use the Announcements forum to post news to the class. Copies of the announcements are also sent to your Queen’s email account.

**Moodle Question and Answer Forum**

You are encouraged to use these forums to post questions of general interest to the class. The instructor, TA (if any), and other students in the class can reply to the posts in this forum. Copies of the forum posts are also sent to your Queen’s email account.

**Timeline and Calendar**

The link to the Course Timeline is located in the top right corner of the table on the course homepage and shows the dates for all of the assessments used in this course as well as provides links to other important course information. Please check the Timeline each time you enter the course.

The calendar located in the top right corner of the course Moodle homepage shows important course dates, such as assignment due dates and quiz due dates. Please check the calendar frequently.
If there are discrepancies between dates in the course Moodle site, the Timeline will be considered accurate.

**Computer Requirements**

**Microsoft Window Client:**
- Windows: XP/Vista/Windows 7/Windows 8
- Pentium III 1 GHz processor
- 256 MB RAM
- Soundcard with speakers and microphone or preferably a headset

**Mac:**
- OS X 10.5
- G4, G5 or Intel processor
- 256 MB RAM
- Internal, USB or external iSight microphone

**Browser:**
- FireFox (recommended)
- Internet Explorer version 6 or higher

**Java:**
- Version 1.5 or higher (Note: Windows users can use only the 32-bit version of Java - not the 64-bit version)

**Internet Connection:**
- High speed access: ADSL, Cable or better

**Media Player:**
- Flash 9 or higher

**Adobe Reader**
- Version 7 or above

**Queen's Email**

The university communicates with students by Queen's email. Please check your email regularly to ensure you do not miss out on important information.

**Email and Moodle Help - Monday To Friday**
Resources Available to You

**The Library** is here to help you make the most of your time at Queen's. It offers many great services to enhance your learning while at Queen's.

- [http://library.queensu.ca](http://library.queensu.ca)

**Writing Services**

- [http://sass.queensu.ca/writingcentre/](http://sass.queensu.ca/writingcentre/)

**Health, Counselling and Disability Services** supports the personal, academic and social development of students at Queen's University by providing a range of programmes and services appropriate to their needs, and by participating in associated activities.

- [http://www.queensu.ca/hcds/mission.html](http://www.queensu.ca/hcds/mission.html)

**Career Services** offers students, faculty, employers and alumni various services including workshops.

- [https://careers.sso.queensu.ca/home.htm](https://careers.sso.queensu.ca/home.htm)

**Academic Integrity**

Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see [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.

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/academic-calendars/regulations/academic-regulations/regulation-1](http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations/regulation-1)), and from the instructor of this course. For current policy updates visit: [http://www.queensu.ca/artsci/about/academic-integrity](http://www.queensu.ca/artsci/about/academic-integrity)

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.