

**PSYCHOLOGY 261**  
**Physiological Psychology**  
**Fall 2005**

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Chris Striemer clstriem@watarts.uwaterloo.ca	PAS room 4041	Mondays 12h30 – 1h30 Thursdays 12h00 – 1h00
Teaching Assistant: Gillian Munro <a href="mailto:gesmunro@watarts.uwaterloo.ca">gesmunro@watarts.uwaterloo.ca</a>	PAS room 4219	Mondays 3:00 – 4:00 Tuesdays 12:00 – 1:00

All course email will be sent to your **UW email account** using UW ACE. This is to ensure that all students receive the email.

**Lectures: Tuesdays and Thursdays, 1:00 – 2:20 in MC 2066**

This is an introductory course to physiological psychology in which we will cover a number of topics concerning brain-behaviour relations. Because of the breadth of the field, there will not be enough time to cover all the major areas, but we will cover the basic principles of brain organisation and neural transmission, and explore topics such as psychopharmacology, vision, audition, language, memory, and neurological disorders. The course goals include the following:

- By the end of this course, you should be able to *identify* various brain areas from a variety of brain images (diagrams, pictures, etc...)
- By the end of this course, you should be able to *describe the functions and processes* of various brain areas and brain systems.
- By the end of this course, you should be able to *apply* your knowledge about the brain to various situations.
- By the end of this course, you should have practiced and developed your *writing* skills.
- By the end of this course, you should be able to critically analyze information about neuropsychology presented in the media.

**Text:**

Carlson, N.R. (2004). *Physiology of Behaviour 8<sup>th</sup> Edition*. Toronto: Allyn and Bacon.

**Optional Texts:**

Carlson, M., & Carlson, N. R. (2004). *Study Guide for 'Carlson: Physiology of Behavior' (8<sup>th</sup> Edition)*. Toronto: Allyn and Bacon.

Pinel, J.P.J. (1998). *A colourful introduction to the anatomy of the human brain*. Toronto: Allyn and Bacon.

**Useful Websites:**

The Digital Anatomist Project: <http://www9.biostr.washington.edu/da.html>

The W.U.S.M. Neuroscience Tutorial: <http://thalamus.wustl.edu/course/>

Also be sure to make use of the CD-ROM packaged with the textbook. It contains lots of animations that are useful for studying.

**Course Requirements and Evaluations:**

Lectures: Lectures will often cover material that is not included in the text, and material from the text will not necessarily be covered in the lectures. For examination purposes, you are responsible for all material covered in the lectures (including videos or other material presented) as well as that in the assigned text chapters. The PowerPoint slides for each lecture will be available on the course website.

Grading: Exams and quizzes will consist of multiple choice questions. There will be one in-class mid-term exam (25%), and one final exam (scheduled between December 8 and December 22). Please make sure to note the dates of the midterm and quizzes. The final exam (40%) will be cumulative, but will focus on material not covered in the midterms.

There will also be five short on-line quizzes worth 2.5 marks each. We will take the best four out of six to make 10% of your final grade. The quizzes will be timed, and will be available on the course website for 24 hours.

Midterm	25%
Paper	25%
Final	40%
<u>Quizzes (top 4 @ 2.5% each)</u>	10%
	100%

**NOTE REGARDING ACADEMIC OFFENSES:**

This is an excerpt from the undergraduate calendar:

Student offences punishable by disciplinary action are described in Policy 71\*. Refer to the section (\*\*\*) at the end of Policy 33 for a list of on-campus individuals, services/facilities available to advise students of their rights under this Policy and to advise on the procedures to be followed.

**Academic offences** shall include, but shall not be limited to, the following:

- Infringing unreasonably on the work of other members of the University community (e.g. disrupting classes or examinations; harassing, intimidating or threatening others).
- Violation of safety regulations in a laboratory or other academic setting.
- Cheating on examinations, assignments, work term reports, or any other work used to judge student performance.
- Impersonating another student or entering into an arrangement with another person to be impersonated for purposes of taking examinations or tests, or carrying out assignments.

- Plagiarism, which is the act of presenting the ideas, words or other intellectual property of another as one's own.
- Obtaining by improper means examination papers, tests, or similar materials, or using or distributing such materials to others.
- Falsifying academic records, including tests and examinations, or submitting false credentials.
- Oral or written misrepresentations (e.g., fraudulent health claims) which may have an effect on academic evaluations.
- Submitting an essay, report, or assignment when a major portion has been previously submitted or is being submitted for another course without the express permission of all instructors involved.

**Disciplinary Penalties.** One or more of the following disciplinary penalties may be imposed:

- A **reprimand** or warning to the student that her/his behaviour has been unacceptable.
- **Submission of a failing grade** in an examination, test, assignment, or course, or in a term.
- **Disciplinary probation** for the balance of the period of registration at the University in the degree program in which the student was registered at the time of the offence.
- **Restraining orders** in the case of threats to individuals or restitution for property or other damages.
- **Expunging** grades or **revoking** degrees.
- **Suspension** of a student from the University, which shall not exceed three years.
- **Expulsion**, which shall be permanent.

*\* The full text of Policy 71 is available on the web.*

*(<http://www.adm.uwaterloo.ca/infosec/Policies/policy71.pdf>). Copies can also be obtained from the Secretariat (Needles Hall, Room 3060); the Co-ordinator, Ethical Behaviour and Human Rights (Mathematics and Computer Building, Room 4049); and the Ombudsperson (Student Life Centre, Room 2128).*

An additional note from the Associate Dean of Arts for Undergraduate Affairs:

“Note on avoidance of academic offenses: **All students registered in the courses of the Faculty of Arts are expected to know what constitutes an academic offense, to avoid committing academic offenses, and to take responsibility for their academic actions.** When the commission of an offense is established, disciplinary penalties will be imposed in accord with Policy #71 (Student Academic Discipline). For information on categories of offenses and types of penalties, students are directed to consult the summary of policy #71 (Student Academic Discipline) which is supplied in the undergraduate calendar. If you need help in learning how to avoid offenses such as plagiarism, cheating, and double submission, or if you need clarification of aspects of the discipline policy, ask your course instructor for guidance. Other resources regarding the discipline policy are your academic advisor and the Undergraduate Associate Dean.”

## Tentative Lecture Schedule

<u>Date</u>	<u>Lecture Topic</u>	<u>Readings</u>
Sept 13	Introduction - G/C	Chapter 1
Sept 15	Cell structure and function – G	Chapter 2
Sept 20	Organization of the nervous system – G	Chapter 3
Sept 22	Synapses and neuronal communication – G	Chapter 4
Sept 27 <b>Q</b>	Synapses and neuronal communication - G	
Sept 29	Neuroscience methods – C	Chapter 5
<b>Oct 4</b>	Neural development – G	No assigned reading
	<b>Assignment – Part 1 due</b>	
Oct 6	Aging and Brain damage – G	No assigned reading
Oct 11 <b>Q</b>	Vision – C	Chapter 6
Oct 13	Vision – C	
<b>Oct 18</b>	<b>MIDTERM – will cover everything up to and including ‘Vision’</b>	
Oct 20	Audition and Sensation – C	Chapter 7 pp. 201-240
Oct 25 <b>Q</b>	Movement – G	Chapter 8
Oct 27	Movement – G	
Nov 1	Memory – C	Chapters 13 and 14
<b>Nov 3</b>	Memory – C	
	<b>Assignment – Part 2 due</b>	
Nov 8	Emotions – (Gillian Munro)	Chapter 11
Nov 10 <b>Q</b>	Emotions and psychopathology - GM	
Nov 15	Language – (Karl Borgmann)	Chapter 15
Nov 17	Anxiety Disorders – G	Chapter 17
Nov 22 <b>Q</b>	Affective Disorders – C	Chapter 16
Nov 24	Schizophrenia – C	Chapter 16
Nov 29	Drugs – C	Chapter 18
Dec 1	Drugs - C	
	<b>Final Assignment Due</b>	

C = Lecture by Chris Striemer

G = Lecture by Geneviève Desmarais