

Psychology 261 Section 1

Physiological Psychology

Monday, Wednesday, Friday

10:30-11:20

MC 2066

Course Home Page: <http://watarts.uwaterloo.ca/~mjdixon/psych261>

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Course Content

This course concerns the brain structures underlying human behaviour. You will be introduced to the techniques used for uncovering these brain-behaviour relationships, (e.g., studying patients with circumscribed brain damage, studying healthy individuals using magnetic resonance imaging, and cognitive neuropsychological paradigms). Specific topics will include perception, object identification, motor control, sleep, emotion, learning and memory. A major emphasis in this course will concern neuroanatomy. To assist you in learning this neuroanatomy, you will be introduced to the Digital Anatomist Program – an Internet resource that provides photographs of dissected brains, Magnetic Resonance Imaging (MRI) images of the brain’s various structures, as well as 3-dimensional models of the brain. An additional key resource is the Neuroscience Animations CD enclosed with the text.

Textbook: *Physiology of Behavior: (Eighth Edition) Neil R. Carlson*

Course Requirements and Evaluation.

The primary responsibility of the student in this course is to learn and understand the material covered **both in the lectures and in the textbook**. Therefore, it is essential that students attend classes and read all the assigned material.

Lectures: It is important to note that the lectures will include materials that are not presented in the textbook.

Readings: Students in this course will be expected to have understood the material covered in the textbook, even if each and every topic in the text was not explicitly discussed in the class lectures.

Digital Anatomist Project/Neuroscience Animations Quizzes

10%: Four in-class Quizzes on material from the Digital Anatomist Project /Neuroscience Animations CD each worth 2.5%.

Four quizzes on material from the Digital Anatomist Project, or the Neuroscience Animations CD that comes with the text must be completed. Students will use these resources to learn the location of various anatomical structures. Students will be tested on what they have learned IN CLASS on the dates listed in the Schedule of Topics, Readings and Deadlines. Since the Digital Anatomist Project is on the Internet, all students must have a NEXUS Computer Account in order to access this web site (See paragraph entitled How do I Get my Nexus Computer Account at the end of this syllabus). Since not all students will have computers at home, the textbook's CD-ROM will be available to our class through their NEXUS Accounts. Once you have logged on Simply go to Start/Programs/Arts/Psychology/Neuroscience Animations.

Further specific information concerning the quizzes, including links to the Digital Anatomist Project can be found on the course home page <http://watarts.uwaterloo.ca/~mjdixon/psych261>

Examinations

For the successful completion of this course, a student must complete two examinations. The contributions of these examinations to your final grade are:

- 30% Mid-Term Examination given during class time.
- 60% Final Exam given during the exam period.

Examinations will consist of multiple choice questions, short answer (fill in the blank) questions and neuroanatomy questions (pictures of brain structures will be presented, and you will be required to label these structures and/or match brain structures with brain functions). For the examinations you will be responsible for all of the materials covered in the textbook and all of the materials covered in the lectures. Examinations will also include identifying structures that you learned for the quizzes using the Digital Anatomist Program and the textbook's Neuroscience Animations CD.

Miscellaneous

Make up examinations will be given ONLY for compassionate (e.g., death in family) or medical reasons; medical reasons must be supported by a physician's note. In order for a person's final exam to be rescheduled due to exam conflicts they must come and see me with proof that they have a conflict (i.e., a conflict is three exams scheduled on the same day). Do not make travel plans before your final exam schedule is known.

Exams which do not mesh with your travel plans are not considered conflicts.

Note on avoidance of academic offences: All students registered in the courses of the Faculty of Arts are expected to know what constitutes an academic offence, to avoid committing academic offences, and to take responsibility for their academic actions. When the commission of an offence is established, disciplinary penalties will be imposed in accord with Policy #71 (Student Academic Discipline). For information on categories of offences and types of penalties, students are directed to consult the summary of Policy #71 which is supplied in the Undergraduate Calendar (section 1; on the Web at http://www.adm.uwaterloo.ca/infoucal/UW/policy_71.html). If you need help in learning how to avoid offences such as plagiarism, cheating, and double submission, or if you need clarification of aspects of the discipline policy, ask your TA or course instructor for guidance. Other resources regarding the discipline policy are your academic advisor and the Undergraduate Associate Dean."

“Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.html>.”

*“**Note for students with disabilities:** The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.”*

SCHEDULE OF TOPICS, READINGS and DEADLINES

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|--|---|----------------------------|
| Jan 5, 7, 10 | Introduction, Cells of the Nervous system | Readings Chapters 1 & 2 |
| Jan 12, 14, 17 | Structure of the Nervous system | Reading Chapter 3 |
| <i>Deadline: All students must have Nexus account by Jan 17.</i> | | |
| Jan, 19, 21, 24 | Methods and Strategies of Research | Reading: Chapter 5 |
| <i>Deadline: Jan 24 Quiz #1.</i> | | |
| Jan 26, 28, 31 | Vision | Reading: Chapter 6 |
| Feb 2, 4, 7 | Synaesthesia | Reading can be found at... |
| | http://psyche.cs.monash.edu.au/v8/psyche-8-01-smilek.html | |
| Feb 9, 11, | Category-Specific Visual Agnosia | No readings |
| Feb 14, 16, 18 | Audition, the body senses and chemical senses | Reading Chapter 7 |
| <i>Deadline: Feb 18th Quiz #2.</i> | | |
| Feb 28, March 2, 4, | Control of Movement | Reading Chapter 8 |
| <u>March 7</u> | <u>Midterm</u> | |
| March, 9, 11, 14 | Sleep and Biological Rhythms | Reading Chapter 9 |
| March, 16, 18, 21 | Emotion | Reading Chapter 11 |
| March, 23, | Learning and Memory | Reading Chapter 13 |
| <i>Deadline: March 23 Quiz #3.</i> | | |
| March, 28, 30 | Learning and Memory Continued | Reading Chapter 13 |
| April 1, April 4, | Relational Learning and Amnesia | Reading Chapter 14 |
| <i>Deadline: April 4th Quiz #4.</i> | | |

Final Exam during Examination period (Covers entire course).

This is a flexible schedule for the readings/lectures. If certain topics take shorter or longer than expected this schedule will be revised accordingly. THE DEADLINES LISTED ABOVE ARE NOT FLEXIBLE.

How do I get my NEXUS COMPUTER ACCOUNT (Information from the Arts Computing Office)

To obtain your new Waterloo Nexus account:

- You will need your Quest Username and Password
- Sit down at a computer that is not logged on
- Press ctrl + alt + del to start
- Click on the new user option on the left of the window in the background
- Fill in your Quest information and click Go (once!!!)
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Arts Nexus labs are located in PAS 1080, 1098, 1102, 1103, 1237 (fastest computers) and HH 236. The help desk is PAS 1077. Most labs are open 24 hours a day. Other Nexus labs can be found in Engineering, Science, and AHS buildings across campus (but you may not be able to access the Neuroscience Animations CD through Nexus from these locations).