PSYC*3410, Course Outline: Winter 2020

General Information

Course Title: Psyc*3410 - Behavioral Neuroscience II

Course Description: This course will broaden your view and knowledge of the neurobiology of behavior, building on basics of brain structure and function covered in Psyc*2410 and NEUR*2000. We will cover such topics as neuroanatomy, neurodevelopment, the regulation of feeding, sleep, stress and emotions, the hormonal regulation of behavior as well as the neurobiology of brain damage and psychiatric disorders. Throughout, we will emphasize the behavioral relevance of the biological and physiological mechanisms under discussion. As a complement to in class lectures the lab will allow a thorough analysis of the anatomy of the brain. You will work in groups of about 4 students, and each of these groups will have several brains to dissect.

Credit Weight: 0.5

Academic Department (or campus): Psychology, Guelph

Semester Offering: Winter 2020

Class Schedule and Location:

Lectures: Tue & Thur: 04:00-5:20PM, Richards Building (RICH), Room 2520

Laboratories: (please be sure to attend the weekly session for which you are registered):
Wednesdays: 5:30-7:20
Fridays: 8:30-10:20
Fridays: 10:30-12:20
Fridays, 12:30-2:20
Fridays, 2:30-4:20
All lab sessions are held in the Summerlee Science Complex (SSC), Room 2307. If you have questions regarding the lab material or your session, email the TA that teaches your specific section.

Instructor Information

Instructor Name: Elena Choleris
Instructor Email: echoleri@uoguelph.ca
Office location and office hours: MacKinnon Building, Room 4020 ext. 52729. Office Hours: T&T 5:30-6:30. Meeting by arrangement.

GTA Information

GTA Names and emails:
Samantha Ayoub, ayoubs@uoguelph.ca
Noah Bass, nbass@uoguelph.ca
Yamna Rizwan, yrizwan@uoguelph.ca
Cassidy Wideman, widemanc@uoguelph.ca

GTA office location and office hours: Blackwood Hall, Rm. 211 ext. 56906. Office Hours: Meeting by arrangement, e-mail at all times.

Course Content

Learning Outcomes

1. Critical and Creative thinking,
    a. Depth and Breadth of Understanding, (introduce/reinforce)
    b. Creativity (reinforce)
2. Methodological Literacy (reinforce)
3. Global understanding, sense of historical development (introduce)
4. Communication
    a. Written (introduce)
    b. Reading (master)
    c. Integrative (introduce/reinforce)
5. Ethical Issues in Research (introduce/reinforce)

Course-Specific Learning Outcomes: At the end of this course, successful students will be able to:

1. Describe principles of neurobiology and neuroanatomy
2. Identify and remember appropriate terminology
3. Understand how these principles have been revealed by key experimental studies
4. Apply these principles to analyze animal behavior
5. Apply these principles to analyze normal and abnormal human behavior

To achieve course-specific learning outcomes, successful students will:

1. Attend lectures and actively engage with peers, Instructor and Teaching Assistants
2. Engage in interactive study groups to complete the Neuroanatomy Laboratory
3. Engage in independent and peer-facilitated studying activity

Lecture Content: The following is an outline of how the course will proceed. However, if necessary, I reserve the right to progress more slowly than indicated.

Date	Readings	Topic
Jan 7	Chpt 9	Course Overview - Neurodevelopment
Jan 9	Chpt 9.	Neurodevelopment
Jan 14	Chpt 9.	Neurodevelopment
Jan 16	Chpt 10.	Brain Damage and Neuroplasticity
Jan 21	Chpt 10.	Brain Damage and Neuroplasticity
Jan 23	Chpt 10.	Brain Damage and Neuroplasticity
Jan 28	Chpt 12.	Regulation of feeding
Jan 30	Chpt 12.	Regulation of feeding
Feb 4		**First midterm exam**
Feb 6	Chpt 12.	Regulation of feeding
Feb 11	Chpt 12.	Regulation of feeding
Feb 13	Chpt 13.	Behavioral Endocrinology
Feb 17-21		**No classes – winter break**
Feb 25	Chpt 13.	Behavioral Endocrinology
Feb 27	Chpt 13.	Behavioral Endocrinology
March 3	Chpt 13.	Behavioral Endocrinology
March 5	Chpt 17.	Emotions, Stress and Health
March 10	Chpt 17.	Emotions, Stress and Health
March 12	Chpt 17	Emotions, Stress and Health
March 17		**Second midterm exam**
March 19	Chpt 17.	Emotions, Stress and Health
March 24	Chpt 14.	Sleep and activity biorhythms
March 26	Chpt 14.	Sleep and activity biorhythms
March 31	Chpt 18.	Neurobiology of Psychiatric Disorders
April 2	Chpt 18	Neurobiology of Psychiatric Disorders

Labs: Lab sessions will proceed as follows

Date	Topics
Jan 15, 17	Orientation – Safety
Jan 22, 24	Outside View dorsal – ventral
Jan 29, 31	Sagittal cut
Feb 5, 7	Coronal cut
Feb 12, 14	Horizontal cut
Feb 19, 21	**No labs - winter break**
Feb 26, 28	Hippocampal dissection
March 4, 6	Cerebellum
March 11, 13	Review
March 18, 20	Bell Ringer Exam Practice
March 25, 27	**Lab Exam**

If you have a **valid excuse** for missing your normally scheduled lab session on any week, please contact the TAs to arrange to attend a different session that week. The same applies to those with a **valid reason** for missing the Bell Ringer Exam in their regular session during the week of March 25 (proper documentation will be requested for changing the date of the exam).

Course Assignments and Tests:

There will be two midterms, a laboratory exam and the final exam. The time of the Final exam is set by the university.

Midterms and Exams	**Dates**
1st Midterm, worth 15 %	February 4, 2020, in class
2nd Midterm (non cumulative), worth 25 %	March 17, 2020, in class
Lab Exam, worth 25%	March 25, March 27, 2020, in the lab (lab exam to be taken on the lab session for which you are registered)
Final Exam (cumulative), worth 35 %	April 20, 2020, (2:30-4:30 PM), location TBA

The written exams may be:

a) multiple choice questions
b) short-answer questions

c) questions relating to diagrams (e.g. label the diagram; explain the diagram)
d) fill in the blank questions

The lab exam will be a "bell ringer" type of exam. There will be several stations, each containing a brain with 3-4 pins that are numbered. Your job will be to identify the brain structures occupied by the pins and specify their main functions. You will have a certain number of minutes for each tray, and then you will progress to the next tray (as a bell rings). This is not as difficult as it might sound - you will be given ample opportunity to study and prepare for the exam, and there are not as many structures as there are pins because, in many cases, the same structure appears in different brain slices.

Final examination date and time: April 20, 2020, (2:30-4:30PM) location TBA

Final exam weighting: 35%

Course Resources

Required Texts: J. P. Pinel & Steven J. Barnes (2018). Biopsychology. New York: Allyn and Bacon, Tenth Edition.
There are a few copies of the textbook on reserve in the library.

Lab Manual: Peters, M & Jasper-Fayer F (2004). A laboratory manual for the dissection of the sheep brain. Manual and supplemental files are available for free download on courselink.

Course Policies

Grading Policies

All examinations are to be taken on the above-indicated dates.

Course Policy on Group Work: N/A

Course Policy regarding use of electronic devices and recording of lectures

Electronic recording of classes is expressly forbidden without consent of the instructor. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

University Policies

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

Academic Consideration:
Academic Consideration, Appeals and Petitions

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:
Academic Misconduct Policy

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Student Accessibility Services as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 54335 or email accessibility@uoguelph.ca or the Student Accessibility Services Website

Course Evaluation Information

Please refer to the Course and Instructor Evaluation Website **.**

Drop date

The last date to drop one-semester courses, without academic penalty, is **Friday April 03, 2020**. For regulations and procedures for Dropping Courses, see the Schedule of Dates in the Academic Calendar.
Current Undergraduate Calendar

Additional Course Information

Course instructors are allowed to use software to help in detecting plagiarism or unauthorized copying of student assignments. Plagiarism is one of the most common types of academic misconduct on our campus. Plagiarism involves students using the work, ideas and/or the exact wording of other people or sources without giving proper credit to others for the work, ideas and/or words in their papers. Students can unintentionally commit misconduct because they do not know how to reference outside sources properly or because they don't check their work carefully enough before handing it in. As the Undergraduate Calendar states: "Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it".