University of Wisconsin-Stevens Point **Fall 2021**

PSYC 325 – Behavioral Neuroscience (sec 003)

Instructor

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In-Person Office Hours: Friday 10am-11:50am
Zoom Office Hours: Monday 2:30pm-4:30pm

Class Schedule

September 2 – December 10; TuTh 2:00pm – 3:15pm, Science Building D217

Course Description

PSYCH 325 – Behavioral Neuroscience – 3 credit hours

This course introduces biological bases of behavior; nervous system function and its relation to behavior, perception, motivation, and thinking. This course may include behavioral endocrinology, behavioral genetics, evolutionary psychology, and psychopharmacology. Prerequisite – PSYC110; PSYC 200 not necessary but recommended

Course Structure

This course will be conducted in-person. Course materials and announcements will also be posted on the course Canvas page. You can access Canvas from the UWSP log in page using your UWSP credentials. If you have not activated your UWSP account, please visit the Manage Your Account page to do so.

Objectives

1. Examine how alterations in brain activity (from micro to whole brain) give rise to changes in behaviors including movement, reproduction, motivation, and learning/memory.
2. Gain an understanding of the how changes in the brain due to genetic or environmental influences result in the development of psychological disorders. Moreover, how this knowledge can inform treatment courses for psychological disorders.

Course Learning Outcomes:

- Understand chemical, hormonal, and electrical communication within the brain.
- Gain a deeper understanding on how the brain and behavior influence each other.
- Become familiar with the basics of neurophysiology/psychopharmacology and how these subfields provide information on psychological disorders.
- Gain an understanding of how behavior can influence brain development and function.
- Gain an understanding on the commonly used techniques within the neuroscience field.

Required Materials and Online Canvas Page

- *Behavioral Neuroscience, 9*th Edition by Breedlove & Watson

- Canvas will be used regularly to distribute documents, grades, and provide exam access. If you have any troubles accessing the course Canvas page please inform IT Service Desk (http://www.uwsp.edu/infotech/Pages/helpdesk/default.aspx)

Grading/assessment

Final grades will be based on unit exams, group assignments/homework, & group article presentations.

Exams: There will be 5 exams throughout the semester. Each exam will cover three specific chapters that are laid out in the syllabus below. Chapters will be covered in class through lectures and group assignments. Each test will be worth 50 points and will consist of mostly multiple-choice style (fill in the blank, recognition, etc...) with the possibility of short answer/assay. Exams will take place on the days designed on the syllabus. **There will be no makeup exams unless there is documentation of a family or personal emergency. I must be notified of an emergency before the scheduled test date for a makeup exam to occur.**

Group/individual assignments: Throughout the semester there will be 3 group assignments. Assignments will focus on a specific topic within the unit they are assigned. Groups will be completely random. Assignments will be due at a later date designated in the syllabus and submitted via Canvas. Each group assignment will be worth 25 points.

Article presentation: The field of neuroscience is constantly evolving. To keep up, a neuroscientist must be able to read, digest, and comprehend scholarly articles within the field. To gain a similar experience, groups draft (from a selection of articles) and present a neuroscience article to the class. Presentations will be 20 minutes long, occur at the end of the semester, and be worth 50 points. Expectations on presentations will be discussed in class.

The following will comprise your final grade:

- Exams: ~67% (250 points)
- Group assignments: ~20% (75 points)
- Group article presentations: ~13% (50 points)

Grading Scale

Final grades will be based on the percentages shown below. I reserve the right to lower/raise these cutoff points. The cutoff points are:

94%- 100%	A	80%- 83%	B-	67%-69%	D+
90%- 93%	A-	77%-79%	C+	64%-66%	D
87%- 89%	B+	74%-76%	C	60%-63%	D-
84%- 86%	B	70%-73%	C-	0%-59%	F

Attendance

Attendance will not count explicitly in the calculation of your grade, but attending class is imperative since all of the tests and final exam will be mostly based on what we cover in class. If you miss a class, please obtain the lecture notes from a classmate.

University Policy Regarding Students with Disabilities

The University will make reasonable accommodations for persons with documented disabilities. Students need to register with Disability and Assistive Technology Center every semester they are enrolled. DATC is located in Albertson Hall on the 6th floor (715-346-3365). To be assured of having services when they are needed, students should register no later than the end of the add/drop deadline of each term. If you have a disability that necessitates an accommodation or adjustment to the academic requirements stated in this syllabus, you must register with DATC as described above and notify your professor.

UWSP Technology Support

- Seek assistance from the IT Service Desk (Formerly HELP Desk)
    - IT Service Desk Phone: 715-346-4357 (HELP)
    - IT Service Desk Email: techhelp@uwsp.edu

Understand When You May Drop This Course

It is the student's responsibility to understand when they need to consider unenrolling from a course. Refer to the UWSP Academic Calendar for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

Statement of Academic Integrity

Academic Integrity is an expectation of each UW-Stevens Point student. Campus community members are responsible for fostering and upholding an environment in which student learning is fair, just, and honest. Through your studies as a student, it is essential to exhibit the highest level of personal honesty and respect for the intellectual property of others. Academic misconduct is unacceptable. It compromises and disrespects the integrity of our university and those who study here. To maintain academic integrity, a student must only claim work which is the authentic work solely of their own, providing correct citations and credit to others as needed. Cheating, fabrication, plagiarism, unauthorized collaboration, and/or helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. Failure to understand what constitutes academic misconduct does not exempt responsibility from engaging in it. Students suspected of academic misconduct

Course Schedule

Date	Topic	Readings	Class Activities/Homework
9/2	Course introduction and expectations	N/A	
9/7	Ch 1. Behavioral neuroscience: scope and outlook	Ch. 1	
9/9	Ch 2. Functional neuroanatomy	Ch. 2	
9/14	Ch 2. Functional neuroanatomy & Ch 3. Neurophysiology	Ch. 2 & Ch. 3	
9/16	Ch 3. Neurophysiology	Ch. 3	
9/21	**Exam 1- Ch. 1-3**		
9/23	Ch 4. The chemistry of behavior	Ch. 4	
9/28	Ch 4. The chemistry of behavior & Ch 5. Hormones and the brain - **Zombie drug handout**	Ch. 4 & Ch. 5	
9/30	Ch 5. Hormones and the brain & **Journal article presentation instructions**	Ch. 5	
10/5	Ch 7. Life-span development of the brain and behavior	Ch. 7	
10/7	Ch 7. Life-span development of the brain and behavior	Ch. 7	
10/12	**Exam 2 – Ch. 4, 5, & 7**		**Zombie drug handout**
10/14	Ch 8. General principles of sensory processing – **Test your senses handout**	Ch. 8	
10/19	Ch 8. General principles of sensory processing & Ch 9. Hearing, balance, taste, and smell	Ch. 8 & Ch. 9	**Article draft**
10/21	Ch 9. Hearing, balance, taste, and smell	Ch. 9	
10/26	Ch 10. Vision	Ch. 10	
10/28	**Exam 3 – Ch. 8-10**		**Test your senses handout**
11/2	Ch 11. Motor control and plasticity	Ch. 11	
11/4	Ch 11. Motor control and plasticity & Ch 12. Sex	Ch. 11 & Ch. 12	

11/9	Ch 12. Sex	Ch. 12	
11/11	Ch 13. Homeostasis	Ch. 13	
11/16	**Exam 4 – Ch. 11-13**		
11/18	Ch 15. Emotion, aggression, and stress – **Diagnosis handout**	Ch. 15	
11/23	Ch 15. Emotion, aggression, and stress & Ch 16. Psychopathology	Ch. 15 & Ch. 16	
11/30	Ch 16. Psychopathology	Ch. 16	
12/2	Ch 17. Learning and memory	Ch. 17	
12/7	**Groups 1 – 3 presentations**		
12/9	**Groups 4 – 6 presentations**		
12/15	**Exam 5 – Ch. 15-17**		**Diagnosis handout**

This syllabus is subject to change and you are responsible for keeping up with any changes and announcements. Any changes will be announced in-class and on the Canvas course page.