

## **PSYC 325 – Behavioral Neuroscience (sec 003)**



### **Instructor**

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In-Person Office Hours: Monday 1:45pm – 3:15pm; Tuesday 12:45pm – 2pm (or by appointment)

Zoom Office Hours: Wednesday 9am-10am (or by appointment)

### **Class Schedule**

September 6th – December 16th; Online Asynchronous – Content delivered via Canvas

### **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 delivered entirely online through Zoom and Canvas. You can access Canvas (which contains links to Zoom) 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<sup>th</sup> 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/essay. 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.**

**Article assignments:** 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, you will be tasked with reading primary articles and providing a summary of the rationale, methods, results, and conclusions of the study. Each article assignment will be worth 10 points and submitted on Canvas.

**Individual assignments:** Throughout the semester there will be 5 individual assignments. Assignments will focus on a specific topic within the unit they are assigned. Assignments will be due on a date designated in the syllabus and submitted via Canvas. Each assignment will be worth 10 points.

**Discussion posts:** There will be a discussion post each week hidden in the content for that week (it will be very obvious what the question is if you go through all of the content). Replying to the discussion post question will be worth 2 points.

The following will comprise your final grade:

- Exams: ~65% (250 points)
- Article assignments ~ 13(50 points)
- Individual assignments: ~13% (50 points)
- Discussion posts ~9% (30 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%	

## **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**

If you have a documented disability and verification from the Disability Resource Center and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to DRC and meet with a counselor to request special accommodation before classes start. The DRC is located in CCC 108 and can be contacted by phone at (715) 346-3365 or via email at [drc@uwsp.edu](mailto:drc@uwsp.edu).

## **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](mailto: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

<b>Date</b>	<b>Topic</b>	<b>Readings</b>	<b>Class Activities/Homework</b>
Week 1 9/6 - 9/11	Course introduction and expectations Ch 1. Behavioral neuroscience: scope and outlook <b>Reflection #1</b>	N/A Ch. 1	<b>Discussion post #1</b>
Week 2 9/12 - 9/18	Ch 2. Functional neuroanatomy Ch 3. Neurophysiology	Ch. 2 Ch. 3	<b>Discussion Post #2</b>
Week 3 9/19 - 9/25	Ch 3. Neurophysiology <b>Exam 1- Ch. 1-3</b>	Ch. 3	<b>Discussion post #3</b> <b>Reflection #1</b>
Week 4 9/26 – 10/2	Ch 4. The Chemistry of Behavior Ch 5. Hormones and the brain - <b>Zombie drug</b>	Ch. 4 Ch. 5	<b>Discussion post #4</b>
Week 5 10/3 – 10/9	Ch 5. Hormones and the brain Ch 7. Life-span development of the brain and behavior	Ch. 5 Ch. 7	<b>Discussion post #5</b>
Week 6 10/10 – 10/16	Ch 7. Life-span development of the brain and behavior <b>Exam 2 – Ch. 4, 5, &amp; 7</b>	Ch. 7	<b>Discussion post #6</b> <b>Zombie drug</b>
Week 7 10/17 – 10/23	Ch 8. General principles of sensory processing – <b>Test your senses</b> Ch 9. Hearing, balance, taste, and smell	Ch. 8 Ch. 9	<b>Discussion post #7</b>
Week 8 10/24 – 10/30	Ch 9. Hearing, balance, taste, and smell Ch 10. Vision	Ch. 9 Ch. 10	<b>Discussion post #8</b>
Week 9 10/31 – 11/6	Ch 10. Vision <b>Exam 3 – Ch. 8-10</b>	Ch. 10	<b>Discussion post #9</b> <b>Test your senses</b>
Week 10 11/7 – 11/13	Ch 11. Motor control and plasticity Ch 12. Sex <b>Reflection #2</b>	Ch. 11 Ch. 12	<b>Discussion post #10</b>
Week 11 11/14 – 11/20	Ch 12. Sex Ch 13. Homeostasis	Ch. 12 Ch. 13	<b>Discussion post #11</b>

Week 12 11/21 – 11/27	<b>Exam 4 – Ch. 11-13</b>		<b>Discussion post #12 Reflection #2</b>
Week 13 11/28 – 12/4	Ch 15. Emotion, aggression, and stress – <b>Diagnosis</b> Ch 16. Psychopathology	Ch. 15 Ch. 16	<b>Discussion post #13</b>
Week 14 12/5 – 12/11	Ch 16. Psychopathology Ch 17. Learning and memory	Ch. 16 Ch. 17	<b>Discussion post #14</b>
Week 15 12/12 – 12/18	Ch 17. Learning and memory	Ch. 17	<b>Discussion post #15 Diagnosis</b>
Finals week 12/19 – 12/22	<b>Exam 5 – Ch. 15-17</b>		

**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.**