

# PSB 3340: Behavioral Neuroscience

University of Florida

Summer A 2025

**Meeting Times:** Monday-Friday, 11:00 AM – 12:15 PM

**Location:** LAR (Larsen Hall) 310

**Instructor:** Matt (Wendel) Friedl, Ph.D.

**Office hours:** One hour immediately following class. Other times by request.

**email:** Please use Canvas messaging; alternate email: wfriedl@ufl.edu

**Office:** Psychology 017 (basement level)

\*I reserve the right to revise the syllabus in order to accommodate the needs of the course. Any updates will be posted to the course announcements section of Canvas.

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### Course Description

This course provides a broad background in the neural basis of human behavior. This is an in-depth introductory course covering how—as far as is currently understood—thoughts, actions, and feelings arise from the biology, anatomy, and physiology of the nervous system.

This course is required both for students in the Behavioral and Cognitive Neuroscience track and the Interdisciplinary Studies (IDS) Neurobiological Sciences major. This course is a pre-requisite for all 4000-level PSB courses.

### Learning Outcomes

- UNIVERSITY OF FLORIDA GENERAL EDUCATION COURSES

As part of the general education curriculum, this class pursues 3 broad categories of student learning outcomes (SLOs):

Category	Institutional Definition	Institutional SLO
<b>Content</b>	Content is knowledge of the terminology, concepts, methodologies, and theories used within the subject area.	Students demonstrate competence in the terminology, concepts, methodologies, and theories used within the subject area.
<b>Critical Thinking</b>	Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion.	Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the subject area.
<b>Communication</b>	Communication is the development and expression of ideas in written and oral forms.	Students clearly and effectively communicate knowledge, ideas, and reasoning in written or oral forms appropriate to the subject area.

This course is part of the Biological Sciences subject area, as described below:

*Biological science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the life sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern biological systems. Students will formulate empirically-testable hypotheses derived from the study of living things, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.*

#### COURSE SPECIFIC LEARNING OUTCOMES

Demonstrate familiarity with:

- major concepts, theoretical perspectives, empirical findings, and historical trends in physiological/biological psychology
- the structure and function of the of the central and peripheral nervous systems
- how the body transforms physical sensations into psychological perceptions
- symptoms and potential causes for selected psychological and neurological disorders

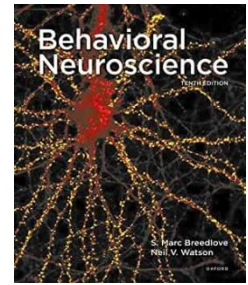
#### Course Requirements and Policies

##### Required Readings

All readings will make use of Perusall, a software program designed to make required readings a more interactive and collaborative experience. Perusall will be discussed more during the first week of the course.

**IMPORTANT: Only purchase the textbook through the Perusall link on the Canvas course page. Reading and commenting through the Perusall application is part of the graded material for the course.**

- Behavioral Neuroscience, 10 th ed. (2023), by S. M. Breedlove and N. V. Watson.
- There is one copy of the 10<sup>th</sup> edition at Library West, available for 2-hour blocks. **Note** that if you choose to read a physical copy of the book outside of the Perusall application, you will still need to log in to Perusall to post comments and respond to comments from other students.



### Course Prerequisite

An introductory course in biology (BSC2010).

### Other Requirements

- ACCESS TO OFFICIAL UF E-MAIL

Check your UF e-mail regularly (daily). All course announcements, including any modifications to this syllabus, will be communicated via e-mail and Canvas announcements. Any grade-related information will only be sent to a UF e-mail address or discussed in-person.

- COMPUTING / TECHNOLOGY

This course requires adherence UF's minimum technology requirements (recommendations [here](#)). These include a computer with webcam, microphone, speakers, and access to a stable internet connection.

A wired connection is recommended when taking quizzes.

- A dedicated room for online assessments is available in UF Library West. To make a reservation for a time of high demand go to the following website: <http://ufl.libcal.com/spaces?lid=4458&gid=8873>
- Other on-campus computer options can be found here <https://labs.at.ufl.edu/>

For technical support, contact the UF Help Desk: <https://helpdesk.ufl.edu/>.

In the event of a technical problem, a support ticket must be obtained from the UF help desk. Technical support will be able to diagnose and certify the source of any problem. Course instructor will not respond regarding *any* technical problems that do not have a prior support ticket from the UF helpdesk—include this support ticket # when communicating the problem.

- CANVAS

Course materials and assignments will be posted to the course Canvas page (<http://lss.at.ufl.edu>; click “Canvas Login”).

Be sure to familiarize yourself with the page and how/where to access information during the first week of class.

### Course Policies

- MAKE UP POLICY FOR MISSED EXAMS, QUIZZES, OR READINGS

Extensions will only occur in extreme circumstances. A Dean of Students note (<https://care.dso.ufl.edu/instructor-notifications/>) verifying documentation of illness or a personal matter should be provided for extended periods of absence. All requests for completing assigned work at days or times other than provided in the syllabus should be submitted well in advance of the regularly scheduled assignment. In emergency situations where advance notice is not possible, provide notice and documentation **within 24 hours** (1 day) of the due date for the scheduled assignment.

Note that **an e-mail prior to class will not be considered sufficient**, unless it is just to provide notice that you will be missing class and that some form of corroborating documentation is forthcoming.

Due dates for make-up Exams or quizzes will be adjusted according to the number of days outlined in supporting documentation. For example, if a doctor's note states that a student should be excused for a Friday class period and can return to school on Monday, due dates will be adjusted by 1 business day such that a quiz or exam scheduled on Friday will need to be completed by the end of the day on Monday.

All exams must be taken in-person with a proctor. Thus, the available times and dates for make-up exams will be limited.

Reading assignments and Perusall posts are available throughout the week and **are not intended to be completed at the last possible minute**. It will usually not be possible to earn full points on a Perusall assignment by reading and posting comments in a single day.

- ACCOMMODATION FOR DISABILITIES

Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). **Accommodations are not retroactive**, so students should contact the office as soon as possible in the term for which they are seeking accommodation. Documentation should be provided prior to taking quizzes or exams – the earlier the better. The Dean of Students Office will provide documentation (an accommodation letter) to the student and the instructor.

- RELIGIOUS OBSERVANCES / UF SPONSORED ACTIVITIES

Documentation is not required, but a student needs to inform the instructor if religious observances of their faith or UF sponsored activities (e.g. sports, student government, etc.) will conflict with scheduled quizzes or examinations **prior to** the class or occurrence of that test or activity.

- ILLNESS OR OTHER PERSONAL EMERGENCIES

For any medical conditions, psychological conditions, illnesses, or injuries that prevent completing scheduled quizzes or examinations, the student should notify the instructor as soon as possible and arrange to provide supporting documentation. The student healthcare center

(<https://shcc.ufl.edu>) can provide verifications of visits, as well as excuse notes in certain situations (see <https://shcc.ufl.edu/forms-records/excuse-notes/>).

- Counseling and wellness center: <http://www.counseling.ufl.edu/cwc/Default.aspx>
- University Police Department: 392-1111 or 9-1-1 for emergencies.

- SEXUAL HARASSMENT

Sexual Harassment is not tolerated in this class, in the Department of Psychology, or at the University of Florida. Sexual harassment includes: the inappropriate introduction of sexual activities or comments in a situation where sex would otherwise be irrelevant. All UF employees and students must adhere to UF's sexual harassment policy which can be found here: <https://hr.ufl.edu/forms-policies/policies-managers/sexual-harassment/>. Please review this policy and contact a university official if you have any questions about the policy.

As mandatory reporters, university employees are required to report knowledge of sexual harassment to UF's Title IX coordinator. For more information about UF's Title IX office see: <https://titleix.ufl.edu/>. You can also complete a Sexual Harassment Report online (Title IX) at: <https://titleix.ufl.edu/title-ix-reporting-form/>.

- COURSE EVALUATIONS

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online. Students can complete evaluations in three ways:

1. The email they receive from GatorEvals
2. Their Canvas course menu under GatorEvals
3. The central portal at <https://my-ufl.bluera.com>

Guidance on how to provide constructive feedback is available at <https://gatorevals.ua.ufl.edu/students/>. Students will be notified when the evaluation period opens. Summaries of course evaluation results are available to students at <https://gatorevals.ua.ufl.edu/public-results/>.

- ACADEMIC HONESTY

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

**"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

Students who share information pertaining to course content from quizzes or exams will be referred to Student Conduct and Conflict Resolution (SCCR) Office in the Dean of Students Office (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>).

- LECTURE RECORDINGS

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are

prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

Publication without permission from the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section.

### Grading

Final course grades will follow the standard grading scale shown to the right.

- **No individual exceptions to this grading scale will be considered.**
- Letter grades will be applied **without rounding**; for example, 93.499% would be an A- and 93.500% would be the lowest average to earn an A.
- No grading curve will be applied unless the final class average is lower than 72.5% (C-). If the average final course grade is lower than 72.5%, an equal number of points will be added to each student’s grade until the average is 72.5% (C).
- No extra credit assignments are anticipated. If extra credit is available, it will be announced to the entire class.

Letter Grade	Range
A	100% to 93.5%
A-	< 93.5% to 89.5%
B+	< 89.5% to 86%
B	< 86% to 82.5%
B-	< 82.5% to 79.5%
C+	< 79.5% to 76%
C	< 76% to 72.5%
C-	< 72.5% to 69.5%
D+	< 69.5% to 66%
D	< 66% to 62.5%
D-	< 62.5% to 59.5%
E	< 59.5% to 0%

**A minimum grade of C is required for general education credit.**

#### • FINAL GRADE CALCULATION

	each	Total
<b>Exams (3)</b>	22%	66%
<b>Quizzes (6)</b>	4.50%	27%
<b>Perusall readings (6)</b>	1.17%	7%

We will cover *roughly* 12 chapters worth of content over the course of the semester. Only select sections from some of the chapters will be assigned, and some weeks will cover material from multiple chapters—be sure to follow the reading schedule.

#### • EXAMS

Three non-cumulative exams will be taken in-person. Each exam will be composed of approximately 50 multiple choice questions. Each exam must be completed within a standard class period (75 minutes in Summer), with any unanswered questions at the end of the period counted as incorrect. Exams must be completed and turned in before leaving the room (such as for bathroom breaks or to answer a phone call) or accessing phones for any reason. Phones should be kept out of sight once the student ID has been entered on the exam Scantron form.

Exams will cover only the text and lecture material from the chapters that have been covered since the last exam (exams 2 and 3) or the first day of class (exam 1). Syllabus information will not be tested on Exam 1.

Exams are closed book, but you may bring **one page of handwritten notes** (standard sized paper, front and back). Printed handwritten notes from an iPad/tablet are acceptable, but be sure that the text is recognizable as human handwriting (do not use a handwriting to font conversion).

Be sure to be on time for exams. Anyone arriving after the first person has turned in his/her/their exam will not be allowed to take the exam and thus will receive a 0. Students with DRC accommodations should **schedule to take exams at the DRC office at the beginning of the semester**.

Answers will be marked on a scantron sheet with a #2 pencil. Be sure to **bring a pencil, your student ID card, and your single page of handwritten notes** to class on exam days.

No course material will be covered on exam days.

To preserve the integrity of exam materials across classes and years, exam answers will NOT be provided on the class Canvas page or submitted in any electronic format (e-mail, Zoom, etc.). Feedback pertaining to missed questions or correct answers will be provided only during office hours for an individual student. During office hours meetings to discuss exams, a hardcopy (printed on paper) version of the exam will be available for review only (no pictures, no recordings). You will never see these exact questions again, so there is no need to memorize them anyway.

Each exam will be available for review during office hours for a period of one week following the exam.

- QUIZZES

Each week there will be a 20-question quiz on the Canvas course website. Quizzes will cover only new material since the preceding quiz (non-cumulative).

Quizzes are **open notes and open book**. However, quizzes will be limited in time, so you will not be able to look up or Google-search every question. Each quiz must be **completed within 14 minutes** of starting it, after which time the quiz will be automatically submitted, and any unanswered questions will be counted as incorrect. Be sure you are well prepared before beginning the quizzes.

Quizzes **must be taken twice** before the due date (different questions will usually appear), and the highest score will be kept. Starting at 12am following the due date for a quiz, **completing the second attempt after 12am will result in an automatic deduction of 10% per day, starting one minute after 12am on the due date**.

There will be an initial quiz covering the syllabus. This initial quiz serves both to familiarize students to the structure and timing of the quizzes and to ensure course policies are known. On the initial syllabus quiz only, you will be able to re-take the quiz an unlimited number of times until you score 100%.

- PERUSALL DISCUSSIONS AND QUESTIONS

Perusall is a social annotation tool designed to make course readings interactive, akin to social media posting. It has been estimated that after two weeks, we only remember about 10% of what we read, 20% of what we hear, but 70% of what we discuss with others (Dale, E. (1969). Audiovisual methods in teaching.)

Note that posts must demonstrate proper written English, including capitalization, spelling, and grammar. A link to Perusall will be in the Canvas course menu, and instructions for using this tool will be provided.

Each week, you should access Perusall assignments at least twice as you complete your reading and commenting – DO NOT WAIT UNTIL THE LAST MINUTE.

Posts will be evaluated for quality by Perusall's automated AI algorithm.

Points are awarded for:

- Making at least 4 "high quality posts" (identified by AI) per reading assignment. Medium quality posts receive half credit (2 medium quality posts = 1 high quality post). Low quality posts do not receive credit.
- Distribution of comments (questions/comments should be spread throughout the reading assignment)
- Reading to the end of the assignment
- Active time spent in the application (time spent reading & replying to other comments)
- Having comments replied to or upvoted by others
- Logging in to each assignment on at least 2 separate occasions

**Attendance:** Attendance will not be taken. However, material that is covered during the lecture will be included on the quizzes. Attending class and taking notes is highly recommended. Exams are in-person, and **physical presence** within the Gainesville area should be maintained throughout the semester.



## Reading & Course Schedule

- READINGS

When the first section of a chapter is assigned (e.g. 1.1, 2.1, etc.), also read the unnumbered opening page(s) of the chapter. Read any “Box” sections included within assigned reading sections (e.g. include Box 1.1 in the reading for chapter 1.1).

Week	Day	Topics	Reading	Week	Day	Topics	Reading
<b>1</b>	<b>Mon</b>	syllabus, history	Ch.1	<b>4</b>	<b>Mon</b>	vision	10.1-10.3
<b>5/12 -</b>	<b>Tue</b>	evolution of the CNS	6.1, 6.3	<b>6/2 -</b>	<b>Tue</b>	vision	10.4-10.6
<b>16-May</b>	<b>Wed</b>	neuron structure & function	2.1, 3.1	<b>6-Jun</b>	<b>Wed</b>	vision	10.7, 7.3
	<b>Thu</b>	neuron structure & function	3.2-3.3		<b>Thu*</b>	motor control	ch. 11 (all)
	<b>Fri*</b>	neurotransmitters & drugs	4.1,4.2		<b>Fri**</b>	Exam 2	
<b>2</b>	<b>Mon</b>	drugs & hormones	4.3-4.4, 5.1	<b>5</b>	<b>Mon</b>	sleep & biorhythms	14.1-14.4
<b>5/19 -</b>	<b>Tue</b>	neuroanatomy	2.2-2.4	<b>6/9 -</b>	<b>Tue</b>	sleep & biorhythms	14.5-14.6
<b>23-May</b>	<b>Wed</b>	neuroanatomy	2.2-2.4	<b>13-Jun</b>	<b>Wed</b>	emotions & stress	15.1-15.2
	<b>Thu*</b>	research methods	2.5,3.4		<b>Thu</b>	emotions & stress	15.3-15.5
	<b>Fri**</b>	Exam 1			<b>Fri*</b>	psychopathology	16.1-16.3
<b>3</b>	<b>Mon</b>	holiday		<b>6</b>	<b>Mon</b>	psychopathology	16.4, 4.5
<b>5/26 -</b>	<b>Tue</b>	sensory processing	ch. 8 (all)	<b>6/16 -</b>	<b>Tue</b>	learning & memory	17.1-17.3
<b>30-May</b>	<b>Wed</b>	hearing	9.1-9.3	<b>20-Jun</b>	<b>Wed*</b>	learning & memory	17.4-17.5, 7.5
	<b>Thu</b>	hearing	9.4-9.5		<b>Thu</b>	holiday	
	<b>Fri*</b>	vestibular & chemical	9.6-9.8		<b>Fri**</b>	Exam 3	
	*= Perusall posts & quiz due (11:59 PM)				**= Exam day		

## FAQ

Q: Will there be a study guide for exams?

A: No. The best review sources will be class PowerPoints and the learning objectives found at the beginning of each assigned reading in the textbook. PowerPoints are already my summary of the most important topics for each chapter. Visual summaries at the end of each chapter in the textbook are also good for review.

Q: What do I have to do to get an A (or a B, or a C...)?

A: There is no guaranteed path to success, but reading the text before each class and *actively* taking notes during class are common habits of students who do very well.

**There will not be any extra credit opportunities or “reopening” of missed assignments or quizzes at the end of the semester** to boost grades. Consistency throughout the semester is key to doing well.

Q: I had some challenging personal situation(s) throughout the semester that negatively impacted my academic performance. What can be done?

A: Legitimate hardships are, unfortunately, going to occur. Each student must decide for themselves if they are able to continue attending school if/when encountering these types of situations. If you decide to remain in the class, you will be graded no differently than anyone else (see grading policy).

Be sure to understand your options for dropping or withdrawing from classes and/or taking medical leave:

<https://catalog.ufl.edu/UGRD/academic-regulations/dropping-courses-withdrawals/#droppingcoursestext>

<https://umatter.ufl.edu/concern/taking-medical-leave-withdraw/>

\*\*Q: I finished with a final score that is a fractional percentage away from a grade cut-off (for example, 93.4% would be an A- instead of an A). What can be done?

A: **Nothing** (unfortunate, maybe, but true). Be sure to complete all work on schedule throughout the semester and document any extenuating circumstances as they arise, instead of waiting until final grades are calculated.