

## PSB 3002 PHYSIOLOGICAL PSYCHOLOGY

SPRING 2023

Meeting time: 1:55 PM – 2:45 PM | Monday, Wednesday, Friday | Period 7

Location: PSY 0151

### Instructor

*Saurabh Ranjan*

Office: PSY 236 D

Office Hours (Walk-ins): Mondays, 10 AM-1 PM in PSY 236 D or By Appointment;

Office Hour (Online): By Appointment

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### Course description

This course is an introductory survey of neuroscience with special relevance to psychology. An overall goal of this course is to appreciate many of the physiological processes that result in brain functions. With an exposition of the tools and perspectives of neuroscience, we will consider how molecular pathways and neural systems produce psychological phenomena. Finally, we will study the application of neuroscience to understand normal brain development, optimize personal well-being, and treat disruptions in brain function.

### Course Objectives

1. Understand how behavior relates to the structures and functions of the nervous system.
2. Explore the mechanisms of sensation, homeostasis of internal states, and behavior.
3. Survey mechanisms of functions of motor control, motivation, effect, and cognition.
4. Examine how applying neuroscience principles and approaches contributes to the remediation and enhancement of psychological well-being.
5. Investigate how disruptions of neural systems contribute to mental dysfunction.

### Attendance Policy

You are expected to attend every class. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. Although lecture slides will be posted, a lot of class time will be spent on discussions. Changes in the tentative schedule and assignments may be made in class, and if so, will be reflected in Canvas. If you miss any information by missing class, it is your responsibility to obtain it from your fellow students. Please realize that if you miss class for any reason, it is still your responsibility to (1) complete & submit assignments prior to the deadline and (2) get notes, assignments, and announcements that you missed from another student.

## Materials and Access

1. **Required Textbook:** Carlson, N.R. and M.A. Birkett (2021). Physiology of Behavior, 13th ed. Pearson Education.  
**ISBN:** UF ALL ACCESS

*Please note that this course will be participating in the UF All Access program. Login at the following website and Opt-In to gain access to your UF All Access course materials - <https://www.bsd.ufl.edu/AllAccess> to an external site. – UF All Access will provide you with your required materials digitally at a reduced price and the charge will be posted to your student account. This option will be available starting 1 week prior to the start of the semester and ending 3 weeks after the first day of class. After the opt-in, students will receive an email from RedShelf for textbook access.*

NOTE: Chapters 15 through 19 will not be covered.

2. **Class/Lecture Slides:** Class slides (in pdf or .ppt form) will be posted on the Canvas website prior to each lecture. You should look at them ahead of time. However, they are NOT a substitute for attending class nor contain all the information covered in class.
3. **Additional Readings:** Reading materials like research papers and popular educational videos will be available via Canvas.
4. **Assignments:** Information on Weekly Assignments and projects for the course will be managed on Canvas.
5. **Projects:** Information and submission of project related documents will be managed over Canvas.

## Prerequisite Knowledge and skills

Students who register for this course are required to have an introductory course in Psychology (e.g. PSY2012). Fundamental knowledge in introductory Biology (e.g. BSC2010) is helpful, but not required. The course is self-contained - meaning that everything you need is contained within the course materials. Accordingly, this course is appropriate for students who have a broad interest in Psychology and the biological basis of behavior.

## Assignments and Exams

1. **Weekly Quizzes (30% of overall marks):** 10 quizzes with Multiple-choice and 20 questions will be scheduled across 10 weeks of the course. The deadline will be Sunday at 11:59 PM of the respective week. **1<sup>st</sup> Quiz is a Practice Quiz but take it**

**seriously, as there will be a survey about the pedagogy of the class and your interests.**

- 2. Projects (25% of overall marks):** You can choose one of the following and can choose to work in a group of at least three individuals. If you cannot find someone to pair then the Instructor can help you find teammates.
- a. Paper:** The paper cannot be 1500 words, and the reference list cannot exceed 10 articles. The presentation can be 15 minutes at maximum.
  - b. Debate:** Submit your arguments as a document. It can be 1500 words at maximum, and the reference list can be at most 10 articles. The Debate cannot exceed more than 20 minutes. A debate team will be matched with another debate. More information will be available on Canvas.

NOTE: Check the course schedule for deadlines on different milestones to be met to complete the projects successfully.

- 3. Exams (35% of overall marks):**
- a. Exam 1:** Exam 1 is in-person and for a duration of 1 hour. It consists of 50 marks. It consists of Multiple-choice questions, Matching the correct phrases and Fill-in-the-blanks type of question.
  - b. Exam 2:** Exam 2 is in-person and for a duration of 1 hour. It consists of 50 marks. It consists of Multiple-choice questions, Matching the correct phrases and Fill-in-the-blanks type of question. This is a non-cumulative exam.
  - c. Exam 3:** The exam 3 is in-person and for the duration of 2 hours. It consists of 50 marks. Multiple-choice questions will be worth 30 marks. There will be short-answer type questions for 10 marks. You will be given 4 short-answer questions and have to do any 2. There will be one long-answer question of 10 marks. You will be given three long-answer questions and must attempt any 1. **If you do more than required in long or short-answer questions, the first 2 in the short answer and the first answer in the long answer will ONLY be graded.** *The short and long-answer questions are non-cumulative. The multiple-choice questions are cumulative.* Check the course schedule for their date and time.

- 4. Department Research Requirements (10% of overall grade):**
- We will discuss the details about how to complete these assignments throughout the course, and guides will be posted on Canvas about how to use SONA to earn research credit. DO NOT leave research participation until the last minute!!! You should be earning this credit throughout the term.

Grading\*  
(\* Subject to Change)

*Course Grades are based on the following:*

1. 10 Weekly Quizzes: 100 pts (10 pts each)
2. Exam 1: 50 pts
3. Exam 2: 50 pts
4. Exam 3: 50 pts (30 pts for multiple choice and 20 pts for short/long essay-type answers)
5. Project: 100 pts (20 pts for choosing the topic, 10 pts for team selection, 20 pts for project outline, 25 pts for Debate/Presentation, 25 pts for project document submission)
6. Extra Credits: 2 Extra Credits will be offered to attend the Project Presentation/Debate of other Participants daily and participate in the discussions.

*Weightage of Quizzes, Exams, Projects, Research Requirements on overall grade:*

1. Weekly Quizzes: 30%
2. Exam 1: 10 %
3. Exam 2: 10 %
4. Exam 3: 15 %
5. Project: 25%
6. Department Research Requirement: 10%

*Final letter grades in the course will be assigned according to the following percentage scale:*

Grade	Scale	Grade	Scale
A	93 – 100%	C	73 – 76%
A-	90 – 92%	C-	70 – 72%
B+	87 – 89%	D+	67 – 69%
B	83 – 86%	D	63 – 66%
B-	80 – 82%	D-	60 – 62%
C+	77 - 79%	E	<60

**A minimum grade of C is required for general education credit.** Rounding of final grades is not required or guaranteed by the Instructor. Likewise, extra credit will only be provided at the discretion of the Instructor and never on an individual basis. Prior to any class announcements regarding either extra credit or grade rounding, any student inquiries as to whether grades will be rounded or extra credit afforded will receive the following reply: "As Instructor, I do not commit to rounding any grades or offering any extra credit at this time." Students will have up to one week to dispute a grade after it has been posted on Canvas. However, as final grades must be submitted by **May 6th** students will have until the end of the business day on **May 3rd** to resolve any disputed Final Exam grades.

Course Schedule\*  
(\* Subject to Change)

Week	Lecture Date	Lecture Agenda	Deadline
1	Jan 8 <sup>th</sup> , 9 <sup>th</sup> & 12 <sup>th</sup>	Introduction and Functions of Neural Cells (Chapters 1 and 2)	Jan 14 <sup>th</sup> 11:59 PM Quiz 1 (Syllabus)
2	Jan 17 <sup>th</sup> and 19 <sup>th</sup>	Functions of Neural Cells and Structure of Nervous System (Chapters 2 and 3)	Jan 21 <sup>th</sup> 11:59 PM Quiz 2 (Chapter 1, 2, and 3)
3	Jan 22 <sup>nd</sup> , 24 <sup>th</sup> and 26 <sup>th</sup>	Psychopharmacology, Neurotransmitters and Research Methods (Chapters 4, and 5)	Jan 28 <sup>th</sup> 11:59 PM Project Milestone 1: Submit the Name of Team-members.
4	Jan 29 <sup>th</sup> , 31 <sup>st</sup> and Feb 2 <sup>nd</sup>	Research Methods and Vision (Chapters 5, and 6)	Feb 4 <sup>th</sup> 11:59 PM Quiz 3 Chapter (4, 5 and 6)
5	Feb 5 <sup>th</sup> , 7 <sup>th</sup> and 9 <sup>th</sup>	Vision, Audition, Body Senses and the chemical senses (Chapter 6 and 7)	Feb 11 <sup>th</sup> 11:59 PM Quiz 4 Chapter (6 and 7)
6	Feb 12 <sup>th</sup> , 14 <sup>th</sup> and 16 <sup>th</sup>	Class Discussions and Exam 1 on Feb 16 <sup>th</sup> in person	Feb 18 <sup>th</sup> 11:59 PM Quiz 5 (Chapter 1 through 7)
7	Feb 19 <sup>th</sup> , 21 <sup>st</sup> and 23 <sup>rd</sup>	Audition, Body Senses and the chemical senses and Control of Movement (Chapter 7 and 8)	Feb 25 <sup>rd</sup> 11:59 PM Quiz 6 (Chapter 7 and 8)
8	Feb 26 <sup>th</sup> , 29 <sup>th</sup> and March 1	Sleep and Biological Rhythms and Reproductive and Parental Behavior (Chapter 9 and 10)	March 3 <sup>rd</sup> 11:59 PM Project Milestone 2: Submit Topic
9	March 4 <sup>th</sup> , 6 <sup>th</sup> and 8 <sup>th</sup>	Project Discussions	March 10 <sup>th</sup> 11:59 PM Quiz 7 (Chapter 9 and 10)
10	March 18 <sup>th</sup> , 20 <sup>th</sup> and 22 <sup>nd</sup>	Emotion and Ingestive Behavior (Chapter 11 and 12) Exam 2 March 20 <sup>th</sup> in person	March 22 <sup>nd</sup> 11:59 PM Project Milestone 3: Submit Outline
11	March 25 <sup>th</sup> , 27 <sup>th</sup> and 29 <sup>th</sup>	Learning and Memory (Chapter 13)	March 31 <sup>th</sup> 11:59 PM Quiz 8 (Chapter 13)

12	April 1 <sup>st</sup> , 3 <sup>rd</sup> and 5 <sup>th</sup>	Human Communication (Chapter 14)	April 7 <sup>th</sup> 11:59 Quiz 9 (Chapter 14)
13	April 8 <sup>th</sup> , 10 <sup>th</sup> and 12 <sup>th</sup>	Project Presentations/Debate	April 14 <sup>th</sup> Quiz 10 Chapter 7 through 14)
14	April 15 <sup>th</sup> , 17 <sup>th</sup> and 19 <sup>th</sup>	Project Presentations/Debate	March 19 <sup>th</sup> 11:59 PM Project Milestone 3: Submit Written Project Document
15	April 22 <sup>nd</sup> and 24 <sup>th</sup>	Class Discussions	
16	May 1 <sup>st</sup>	FINAL EXAM 3 10 AM -12 NON; LOCATION: TBD	

### Make-Up and Late Policy

NO MAKE-UPS WILL BE GIVEN ON ANY MATERIAL FOR THIS COURSE, except for university excused absences with adequate documentation (i.e. doctor's note). Documentation should be provided at least 7 hours before the course material is due unless there are extenuating circumstances. Doctor's notes etc. must be provided as soon as possible. Makeups need to be completed no later than a week after the material was due (including weekends and holidays). Thus, if the material was due on Wednesday, then it must be completed by the following Wednesday unless there are extenuating circumstances. Late work is allowed on most individual assignments. Individual assignments that are marked in canvas as such are allowed to be up to 3 days late but will have a penalty of 2.5 pts for each day.

### Proctoring

Quizzes for this course are proctored by HonorLock. The benefits of HonorLock are that the proctoring framework is embedded in Canvas without intrusiveness and the need for prior scheduling. The goal of proctoring in this course is to place all students on a level field. Benefits of this technological support for our course include convenience and technical support for assessments online. At the start of the semester please examine and ensure the minimum requirements for your learning environment, and take the practice quiz in Canvas.

<https://honorlock.com/support/>

### Misconduct and Honesty Policy

Cheating and plagiarism will not be tolerated in this course. Students who are caught cheating or plagiarizing will be subjected to the Student Honor Code Process.

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code." 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." The Conduct Code specifies a number of behaviors that are in violation of this code, including cheating and plagiarism, and the possible sanctions. If you have any questions or concerns, please consult with the Instructor in this class.

### In-Class 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.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any Instructor-led discussions that form part of the presentation, and delivered by any Instructor hired or appointed by the University, or by a guest Instructor, as part of a University of Florida course. A class lecture does **not include** lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or guest lecturer during a class session.

**Publication without permission of 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. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

### Online Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on

how to give feedback in a professional and respectful manner is available at

<https://gatorevals.aa.ufl.edu/students/>.

Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>.

Summaries of course evaluation results are available to students at

<https://gatorevals.aa.ufl.edu/public-results/>.

### Accommodations for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

### Sex or Gender Discrimination/Misconduct Resources

UF fosters a campus free of sexual violence including sexual harassment, domestic violence, dating violence, stalking, and/or any form of sex or gender discrimination. In support thereof, if you disclose a personal experience as a UF student, the Instructor may be required to notify the Title IX Coordinator by completing the report form available at <https://titleix.ufl.edu/report-an-issue/>, emailing [titleix@ad.ufl.edu](mailto:titleix@ad.ufl.edu) or calling (352) 273-1094.

### Health and Wellness Resources

**U Matter, We Care:** If you or someone you know is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu), 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.

**Counseling and Wellness Center:** Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.

**Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.



**University Police Department:** Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

**UF Health Shands Emergency Room / Trauma Center:** For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

**GatorWell Health Promotion Services:** For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273-4450.

### Academic Resources

**E-learning technical support:** Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).

**Career Connections Center:** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

**Library Support:** Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center:** Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.

**Writing Studio:** 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

**Student Complaints On-Campus:** Visit the Student Honor Code and Student Conduct Code webpage for more information.

**On-Line Students Complaints:** View the Distance Learning Student Complaint Process.