PSB 3340: Behavioral Neuroscience University of Florida Department of Psychology

Course: 17611; Section 5735

Fall 2022

Meeting Times: T Period 3 (9:35-10:25); Th Periods 3/4 (9:35-11:30)

Location: PUGH 170 and Zoom

Instructor: Lori Knackstedt, Ph.D. Email: knack@ufl.edu Office: Psychology 322 Office hours: Tuesday11:45-12:45 & by request Location: Zoom link in Canvas Phone: 352-273-2185

| Graduate TA's | Office Hours | Office location | |
|--------------------|---------------------------|-----------------------|--|
| Cassidy Goucher | Monday 1 – 3 pm | Psychology Bldg. 311B | |
| Eliany Perez | Friday 9 – 11 am | Psychology Bldg. 098B | |
| Alexandra Sanchez | Wednesday 10 am – 12 pm | Psychology Bldg. 311B | |
| Undergraduate TA's | Office Hours | Office location | |
| Rachael Major | Monday 12-1 pm | Psychology Bldg. 136 | |
| Tyler Thompson | Monday 4-5 pm | Psychology Bldg. 136 | |
| Leah Bolles | Wednesday 12:50-1:40 pm | Psychology Bldg. 136 | |
| Ajay Garg | Wednesday 9:30 – 10:30 am | Psychology Bldg. 136 | |

*Use Canvas messaging to communicate with Dr. Knackstedt and the TA's **Please reach out to a TA if you prefer to join their regularly scheduled office hours via Zoom.

Learning Objectives: This course is designed to introduce you to basic concepts of Behavioral Neuroscience. After covering the anatomy & physiology of the nervous system, we will be discussing topics of behavior such as sensory perception, learning, sleeping, and motivation. We will also learn about psychological disorders and their treatments. By the end of this course, students should be able to:

-Describe the major features of the brain and spinal cord.

- -Understand the electrical and chemical properties of neurons.
- -Understand the mechanisms of action for different drugs.
- -Understand the basic principles of sensory stimuli.

-Describe the paths of sensory information.

-Describe how motor actions are generated.

-Explain how complex behaviors are studied by neuroscientists.

-Understand the neuroscience behind sleeping, learning, emotion and motivation.

- -Understand the causes and symptoms of psychiatric disorders such as schizophrenia and depression.
- Understand the hormonal regulation of the stress response and feeding.

- Develop skills for conducting literature review and summarizing the results of published papers.

Instructional Methods and Class Format: Class format will primarily be lecture. While lecture powerpoint slides are posted on Canvas, it is strongly advised that you take detailed notes.

Textbook: Biological Psychology 9th edition by Breedlove and Watson

Course Policies:

Attendance: Attendance will not be factored into your grade but you will <u>not</u> do well in this class if you do not attend/listen to lectures and <u>take notes</u>. Powerpoints will be posted online but the majority of information will need to be written down by YOU. If you have a family emergency or lengthy illness that requires a long absence from the class please send me an excuse from the Dean's office or Health Services.

Electronic Devices: Use of a laptop/tablet is acceptable. However, if your use of electronic devices is distracting to the class you will be asked to stop.

Missed exams or assignments: An excuse from the DSO is needed to schedule a make-up exam. This excuse must be sent to Dr. Knackstedt on the day of the exam. Makeup exams will consist of a different exam than the one administered on the regularly scheduled exam day and may have a different format (e.g. more essay questions). Make-up exams will be given on Thursdays in the Psychology Building during regularly scheduled class time, unless you have scheduled to take the exam at the Disability Resource Center. As lectures are recorded and posted on Canvas, this will not result in missing course material.

Legibility of exams or assignments: *Handwritten exams that are illegible will not be graded*.

Academic dishonesty: Guidelines for this course will follow the University of Florida Student Honor Code, see <u>http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php</u>. DO NOT CHEAT - WE WILL CATCH YOU. Anyone caught cheating on an exam will fail the class, period.

Disabled Students: Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. The student is responsible for scheduling a room at the Disability Resource Center (DRC) to take their exams. For this class, it is required that the exam be scheduled for the exam date and time (and can start no more than 30 minutes prior to the regularly scheduled class exam). This applies to make up exams. It is strongly suggested that you book your exam room early. If a regularly scheduled exam date is changed, it is the student's responsibility to change the exam date with the DRC. No late or early exams will be accepted from the DRC.

On a personal note... Courses which discuss psychological disorders can touch on personal issues, and may make you more sensitive to difficulties in your own life. Please feel free to talk to me about anything, anytime. If you feel like you could benefit from professional counseling, contact the Counseling and Wellness Center at 392-1575

Learning Assessment and Grading:

1. Exams: This course will have three exams and one cumulative final exam. Each exam will be composed of 40-45 multiple choice or T/F questions and one essay question. Each of the first three exams will cover only the text and lecture material from the chapters that have been covered since the last exam or the first day of class. If you miss an exam or do poorly on an exam, you can drop this grade and replace this exam with the Final Exam. The <u>optional</u> final exam will be comprehensive. If you take all the three regular tests and are satisfied with your grade, you may skip the final exam. **In this case the better test score (regular test or final exam) will count. You don't need to check with me – this will happen automatically.** Each exam is worth 25% of your final grade.

You will need to bring an official photo ID (Gator1, driver's license) to take exams. You will be required to display the ID on your desk during the exam. You will also need a #2 pencil to take exams. Note – If you arrive late for an exam, you may be refused. If you arrive after any student has completed the exam and left, you will not be permitted to write the exam.

2. The second component of your grade will be a Term Paper (see assignment description on Canvas). This assignment is worth 20% of your final grade.

3. The third component of your grade is the completion of the Research Requirement (see assignment description on Canvas). This assignment is worth 5% of your grade.

Final Grade Calculation

Highest exam score x 0.25

2nd highest exam score x 0.25

3rd highest exam score x 0.25

Mini Literature Summary score x 0.20

Research Requirement score x 0.05

Final grade = sum of the above values x 100:

The grading scheme is APPROXIMATELY as follows:

| А | (outstanding) | 93-100 | C (slig | ightly below average) 73-76 | | |
|----|---------------|-------------|---------|-----------------------------|------------------|--|
| A- | (superior) | 90-92.99 | C- | (below average | ge) 70-72.99 | |
| B+ | (excellent) | 87-89.99 | D+ | (well below a | verage) 67-69.99 | |
| В | (very good) | 83-86.99 | D | (poor) 63-66. | .99 | |
| B- | (above averag | e) 80-82.99 | D- | (very poor) | 60-62.99 | |
| C+ | (average) | 77-79.99 | E | (failure) | <60.99 | |

IF any curve is applied to the grades, it will be done at the end of the semester to the Final course grade. If the average final course grade is lower than a 75%, points will be added to everyone's grade until the average is a 75%. Last year there was no curve as the class average was higher than 75%. PLEASE DO NOT ASK ABOUT A CURVE. YOU WILL BE NOTIFIED IF THERE IS A CURVE. WE DON'T KNOW IF THERE WILL BE A CURVE UNTIL THE FINAL EXAM HAS BEEN GRADED.

Please see the following website for UF policy on grades: https://catalog.ufl.edu/ugrad/current/regulations/info/grades

| Week | Dates | Торіс | Reading |
|------|------------------------|---|---|
| 1 | 8/25 | Introduction to the course and to neuroscience | Ch. 1.1 and 1.4 |
| 2 | 8/30 9/1 | The neuron & action potential Neurotransmission & Psychopharmacology | Ch. 2.1, Ch. 3.1 Ch. 3.2-3.3, and Ch. 4.1-4.5 |
| 3 | 9/6, 9/8 | Neuroanatomy | Ch. 2.2-2.5 |
| 4 | 9/13, 9/15 | Research Methods in Neuroscience | Ch. 1.2-1.3, 2.5, 3.4 |
| 5 | 9/20 9/22 | Review for Exam 1 Exam 1 | |
| 6 | 9/27 9/29 | Sensation & Perception: Intro, Somatosensory System Sensation & Perception: Hearing, Balance, Vision | Ch. 8 Ch. 9.1-9.7, Ch.10 |
| 7 | 10/4 10/6 | Sensation & Perception: Smell & Taste Motor System (Recorded Lecture) | Ch. 9.8- 9.9 Ch. 11 |
| 8 | 10/11, 10/13 | Learning & Plasticity | Ch. 17 |
| 9 | 10/18, 10/20 10/21 | Sleep & Circadian Rhythms *Deadline to declare Option 2 for Research Requirement | Ch. 14 |
| 10 | 10/25 10/27 | Review for Exam 2 Exam 2 | |
| 11 | 11/1 11/3 | Movie: Psychological Disorders Psychological Disorders | Ch. 16 Ch. 16 |
| 12 | 11/8 11/10 11/15 | Psychological Disorders Hormonal Control of Behavior: Intro **Term paper due | Ch. 16; Ch. 4.6 Ch. 5 |
| 13 | 11/15 11/17 | Hormonal Control of Behavior: Eating Hormonal Control of Behavior: Stress | Ch. 13.4-13.6 Ch. 15.5 |
| 14 | 11/22 11/24 | Catch up day/Review for Exam 3 No Class – Thanksgiving Break | |
| 15 | 11/29 12/1 | Emotion Exam 3 | pp. 15.1-15.4 |
| 16 | 12/6 | Review for Final exam | |

Optional Final Exam: 12/16/2022: 12:30 PM - 2:30 PM in the classroom

This is a difficult course – not because as an instructor I will deliberately make the tests hard, but due to the nature of the material. It is my goal to get you to understand this material so that you leave the class with a strong foundation in behavioral neuroscience. I am here to help you. However, there are several things that I will not do because I don't believe that they "help" you learn.

What I will not do:

- 1. Offer extra credit to individuals. If the class average is below 75% after 2 exams I will *consider* offering extra credit to the entire class. This will most likely not happen.
- 2. Answer questions about class material via email that require more than a paragraph of typing. If you don't understand something, please come see me before or after class, raise your hand in class and ask for clarification or come to my office hours.
- 3. Provide study guides for tests. ALL material on lecture slides should be reviewed and understood for exams.

What I will do:

- 1. Meet with you to explain material and go over exams the best time is during office hours but also before and after class or by appointment. Your first stop to go over an exam should be the grading TA.
- 2. Do my best to explain material in a slow, coherent manner. If you feel that I am going too fast during lecture, please let me know. There is a good chance that your classmates feel the same way. Raise your hand during class to let me know this, stop by afterwards, or even drop an anonymous note in my Psychology Dept. mailbox. I won't know that I am going too fast unless someone tells me.
- 3. Provide guidance regarding the format of exams.

In response to COVID-19, the following recommendations are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.

- If you are not vaccinated, get vaccinated. Vaccines are readily available and have been demonstrated to be safe and effective against the COVID-19 virus. Visit one.uf for screening / testing and vaccination opportunities.
- If you are sick, stay home. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 to be evaluated.
- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work.
- This course will be offered in hyflex format, live in class lectures and remotely over Zoom. The lectures will also be recorded.

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 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.

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/.