PSB 3002: Physiological Psychology

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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 gain appreciation of many of the physiological processes that result in functions of the brain. 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 wellbeing, and treat disruptions of 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, affect, and cognition
4. Examine how application of neuroscience principles and approaches contributes to remediation and enhancement of psychological well being
5. Investigate how disruptions of neural systems contribute to mental dysfunction
6. Engage in and facilitate discussions to apply knowledge and deepen understanding

Required Readings


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 behaviour.
Class Schedule

Table 1: Schedule of course modules and chapter topics from Carlson and Birkett (2016)

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Exam</th>
<th>Chapter</th>
<th>Module</th>
<th>Quiz</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/07 - 01/11</td>
<td></td>
<td>1</td>
<td>Introduction</td>
<td>Ch.1 Jan-14</td>
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<tr>
<td>2</td>
<td>01/14 - 01/18</td>
<td></td>
<td>2</td>
<td>Structure and Function of Nervous System Cells</td>
<td>Ch.2 Jan-21</td>
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<tr>
<td>3</td>
<td>01/21 - 01/25</td>
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<td>3</td>
<td>Structure and Function of the Nervous System</td>
<td>Ch.3 Jan-28</td>
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<tr>
<td>4</td>
<td>01/28 - 02/01</td>
<td>Exam 1 Jan-31</td>
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<tr>
<td>5</td>
<td>02/04 - 02/08</td>
<td></td>
<td>4</td>
<td>Psychopharmacology</td>
<td>Ch.4 Feb-11</td>
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<tr>
<td>6</td>
<td>02/11 - 02/15</td>
<td></td>
<td>6</td>
<td>Vision</td>
<td>Ch.6 Feb-18</td>
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<td>7</td>
<td>02/18 - 02/22</td>
<td></td>
<td>8</td>
<td>Control of Movement</td>
<td>Ch.8 Feb-25</td>
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<td>8</td>
<td>02/25 - 03/01</td>
<td>Exam 2 Feb-28</td>
<td>9</td>
<td>Sleep and Biological Rhythms</td>
<td>Ch.9 Mar-18</td>
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<tr>
<td>9</td>
<td>03/04 - 03/08</td>
<td>SPRING</td>
<td></td>
<td>BREAK –</td>
<td>no classes –</td>
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<tr>
<td>10</td>
<td>03/11 - 03/15</td>
<td></td>
<td>10</td>
<td>Reproductive Behavior</td>
<td>Ch.10 Mar-25</td>
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<tr>
<td>11</td>
<td>03/18 - 03/22</td>
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<td>11</td>
<td>Emotions</td>
<td>Ch.11 Apr-1</td>
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<tr>
<td>12</td>
<td>03/25 - 03/29</td>
<td>Exam 3 Apr-4</td>
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<tr>
<td>13</td>
<td>04/01 - 04/05</td>
<td></td>
<td>12</td>
<td>Ingestive Behavior</td>
<td>Ch.12 Apr-8</td>
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<tr>
<td>14</td>
<td>04/08 - 04/12</td>
<td></td>
<td>13</td>
<td>Learning and Memory</td>
<td>Ch.13 Apr-15</td>
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<tr>
<td>15</td>
<td>04/15 - 04/19</td>
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<td>18</td>
<td>Drug Abuse</td>
<td>Ch.18 Apr-22</td>
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<tr>
<td>16</td>
<td>04/22 - 04/26</td>
<td>Exam 4 Apr-24</td>
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Summary of Grading

- 40% of the grade is determined by **Chapter Quizzes**.
- 60% of the grade is determined by **Exams**.

**Please note:**

- We will not cover chapters 5, 7, and 14-17 of the textbook.

- Pay careful attention to the due dates for quizzes and exams.

- Usually, there is one quiz per week. Some weeks are skipped due to longer chapters. Most quizzes are due on Mondays, and most exams are due on Thursdays. However, exam #4 is due on Wednesday April 4 because that is the end of the semester.
Details of Grading and Class Policies

GRADING: This course will have 12 quizzes (one quiz per module), and 4 examinations. Each of the quizzes will cover only the material in the module (chapter) for which the quiz is assigned. Each examination will address the material from the relevant segment of the course. The quizzes will count for a total of 40% of the final grade (4% per quiz, counting the best 10 quizzes; see quiz/exam policy). The exams will count for a total of 60% of the final grade (15% per exam, all exams count).

QUIZ/EXAM POLICY: Each online quiz is available during the weekend before its due date and time. Then, it will disappear, along with the opportunity to get points for it. Each quiz has a time limit of 10 minutes, and it will lock you out at the end of the 10 minutes. You have only one opportunity to take each quiz, so make certain you are well prepared before you start the quiz. Each online exam will only be available during the dates and times specified in this syllabus. Each exam has a time limit of 60 minutes, and it will lock you out at the end of the 60 minutes. You have only one opportunity to take each exam. All online quizzes and examinations must be completed on time (i.e. by the due date and time). Late quizzes or examinations will not be available under any circumstances.

If you complete all quizzes, your best 10 out of 12 quizzes will count toward your final grade. If you miss one or two quizzes, your remaining best 10 quizzes will count. If you miss more than two quizzes, you will be given a score of 0 (zero) on the additional missed quizzes, and those grades will be included in the calculation of your final grade. All four examinations must be completed, and the grades for all four exams will be included in the calculation of your final grade.

ATTENDANCE POLICY: Students are expected to progress through the course on the timetable outlined in this syllabus. It is advised that students turn in assignments early, in order to avoid any potential problems with technology. If you encounter technical difficulty, you must contact the UF help desk (note that the phone and e-mail support is available after hours 24 hrs/day, except holidays – for further information see http://helpdesk.ufl.edu/hours-of-operations/). Information for getting technical help is provided under “getting help”, below. Any inquiries that are communicated through the course e-mail will receive a response from the Professor typically within 24 hours. Please allow additional time on weekends and holidays.

CLASS EVALUATIONS: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

COUNSELING AND WELLNESS CENTER: Contact information for the Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

ADDITIONAL SUPPORT FOR STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc/). 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.
ACADEMIC HONESTY GUIDELINES: The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XI of the Student Conduct Code. The conduct set forth hereinafter constitutes a violation of the Academic Honesty Guidelines (University of Florida Rule 6C1-4.017).

Cheating. The improper taking or tendering of any information or material which shall be used to determine academic credit. Taking of information includes, but is not limited to, copying graded homework assignments from another student; working together with another individual(s) on a take-home test or homework when not specifically permitted by the teacher; looking or attempting to look at another student’s paper during an examination; looking or attempting to look at text or notes during an examination when not permitted. The tendering of information includes, but is not limited to, giving of your work to another student to be used or copied; giving someone answers to exam questions either when the exam is being given or after taking an exam; giving or selling a term paper or other written materials to another student; sharing information on a graded assignment.

Plagiarism. The attempt to represent the work of another as the product of one’s own thought, whether the work is published or unpublished, or simply the work of a fellow student. Plagiarism includes, but is not limited to, quoting oral or written materials without citation on an exam, term paper, homework, or other written materials or oral presentations for an academic requirement; submitting a paper which was purchased from a term paper service as your own work; submitting anyone else’s paper as your own work. Bribery. The offering, giving, receiving, or soliciting of any materials, items or services of value to gain academic advantage for yourself or another.

Misrepresentation. Any act or omission with intent to deceive a teacher for academic advantage. Misrepresentation includes using computer programs generated by another and handing it in as your own work unless expressly allowed by the teacher; lying to a teacher to increase your grade; lying or misrepresenting facts when confronted with an allegation of academic dishonesty.

Conspiracy. The planning or acting with one or more persons to commit any form of academic dishonesty to gain academic advantage for yourself or another.

Fabrication. The use of invented or fabricated information or the falsification of research or other findings with the intent to deceive for academic or professional advantage. UF’s Academic Honesty Policy is clearly stated in rule 6C1-4.017 Student Affairs: Academic Honesty Guidelines.

Honor Pledge. We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty 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.”