

Physiological Psychology

Fall 2021

M/W 3:45 – 5:05 p.m.

Instructor

Professor Lisa Payne

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I want to help you succeed in this course! Please don't hesitate to reach out to me throughout the semester with any questions or concerns you may have.

Email

Please direct all general course questions to the “General Course Questions” discussion board in Canvas (available in the Course Essentials module). Check both the syllabus and the discussion board before asking a question.

Personal issues regarding grades, individual assignments or life circumstances should not be addressed in Canvas; please email me these questions. You will receive a response from me within 24 hours with the exception that emails received Friday night through Sunday night will likely not be answered until Monday.

Office Hours

Should be renamed “Student Hours!” Office hours are a designated time that instructors are available for you to ask questions, get help with study habits or difficult material, and/or just have a discussion. In compliance with Rutgers health safety regulations, office hours will be via zoom or phone. Use my Calendly link to schedule an appointment: <https://calendly.com/lisa-payne/payneofficehours>

Course Description

Physiological Psychology is the scientific investigation of the influences of biological processes on behavior. How do we form memories? Why are some drugs so addictive? Why don't we like the taste of our favorite food when sick? The goal of this course is to explore answers to questions like these by providing a comprehensive introduction to the physiological mechanisms of behavior. We will begin with the details of the nerve cell, conduction and neurotransmission. We will build upon this smallest unit of the nervous system in order to survey the neural basis of sensory, motor, rhythmic, reproductive, cognitive, emotional and dysfunctional behavior.

Learning Goals: Students who complete this course will be able to:

1. Describe the major features of the nervous system.
2. Explain neural communication and how chemicals affect neural processing.
3. Describe how our underlying physiology influences a wide range of human behaviors.
4. Appreciate the variety of methods for studying complex phenomena like learning and memory.

Requirements and Grading

Readings: It is critical to read the posted material(s) in preparation for class discussion. Class time will be used to provide context and overview, as well as visualize and demonstrate the more difficult concepts.

Online Quizzes (20%):

There will be a quiz due every Monday based on the posted readings for that coming week. We know that people learn and understand new information significantly better when a context is given first. The readings give you context and prime your brain with the terminology. Your lowest quiz score will be dropped.

In-class Activities (30%):

There will be an assortment of in-class activities designed to help you integrate and solidify the material. For full credit, they are due by the end of class. Activity sheets will be posted on Canvas and may be completed and submitted for up to 85% credit any time before the exam on which the material is covered.

Exams (50%):

Three (3) exams with mix of question types. The exams cover material from lectures and assigned readings. Each exam emphasizes topics covered in that section; however, because the material is cumulative by nature, some concepts may be included on more than one exam. Makeup exams will be given *only* with *prior* agreement from the instructor; there will be no exceptions.

Brain Game. Read class notes and the anatomy Modules of the text. Complete the LabelTheseBrains and NeuroAnatomy handouts noting the location and, whenever possible, **the function** of all the parts of the brain and nervous system listed on the handout. You might also want to make yourself some diagrams and also include any additional brain regions we have already discussed in class. You'll use your assignment to help your team earn extra credit points in the brain game. Students who do not hand in completed LabelTheseBrains and NeuroAnatomy handouts will be put in a group together. Rules for The Brain Game:

1. Bring your completed handouts to class. Your handouts will be very important to you and your group because you cannot use your textbook to answer questions. You may however supplement your handout with additional **hand-drawn** diagrams or notes that you think may help you during the game.
2. During the game each group will use their knowledge of brain anatomy and the functions of different parts of the nervous system to either locate the region of brain involved in a particular case or "diagnose" what area of the brain is damaged on the basis of behavioral symptoms. I'll give your group a set of symptoms – e.g. a person who has a brain tumor that causes deafness – and your group will identify which brain area may be involved.
3. Correct Answer: If your group answers correctly, your group receives a point added onto your first exam score! If your group answers incorrectly, you receive no points and the next group can steal the question.

Standard disclaimer:

No guarantees are made that class will precisely follow the plan above. Every effort will be made to adhere to the plan; failing that, changes will be telegraphed as far ahead as possible.

Grading: A 90 and above; B+ 87-89; B 80-86; C+ 77-79; C 70-76; D 60-69

Policies

Face coverings: In order to protect the health and well-being of all members of the University community, masks must be worn by all persons on campus when in the presence of others (within six feet) and in buildings in non-private enclosed settings (e.g., common workspaces, workstations, meeting rooms, classrooms, etc.). Masks must be worn during class meetings; any student not wearing a mask will be asked to leave.

Masks should conform to CDC guidelines and should completely cover the nose and mouth:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html> Each day before you arrive on campus or leave your residence hall, you must complete the brief survey on the [My Campus Pass symptom checker](#) self-screening app.

Technology in the classroom. Each class period is “protected time.” Thus, the use of smart phones, iPods, etc. is neither appropriate nor allowed. Please remember to silence your phones and other devices before class begins. Laptops may be used for taking notes, but please refrain from using the Internet (Facebook, e-mail, twitter, etc.) during class time.

See “**Campus Resources**” document in **Course Syllabus tab on Canvas.**

Date	Day	Topic
1-Sep	Wed	Introduction
6-Sep	Monday	<i>NO CLASS Labor Day</i>
8-Sep	Wed	Nervous system: cells (A)
13-Sep	Monday Q1	Nervous system: synapses (A)
15-Sep	Wed	Nervous system: anatomy
20-Sep	Monday Q2	Sensory systems: vision
22-Sep	Wed	
27-Sep	Monday Q3	Sensory systems: audition (A)
29-Sep	Wed	
4-Oct	Monday Q4	Sensory systems: other
6-Oct	Wed	<i>BRAIN GAME</i>
11-Oct	Monday	Exam I
13-Oct	Wed	Development & plasticity
18-Oct	Monday Q5	Motor systems: Movement (A)
20-Oct	Wed	
25-Oct	Monday Q6	Wake & sleep (A)
27-Oct	Wed	
1-Nov	Monday Q7	Reproductive behavior
3-Nov	Wed	Internal regulation
8-Nov	Monday	Exam II
10-Nov	Wed	Emotions
15-Nov	Monday Q8	Learning & memory (A)
17-Nov	Wed	
22-Nov	Monday Q9	Attention
24-Nov	Wed	<i>NO CLASS THANKSGIVING BREAK</i>
29-Nov	Monday Q10	Language (A)
1-Dec	Wed	Neurobiology of disorder
6-Dec	Monday Q11	
8-Dec	Wed	Methods (A)
13-Dec	Monday	Exam III