Biopsychology

COURSE DESCRIPTION

Introduction to the field of behavioral neuroscience, the study of neurobiological basis of cognition and behavior. Topics include neuroanatomy and physiology, localization of function, brain injury, research methods in behavioral neuroscience, and biological basis of language, memory, emotion, conscious states and sexual behavior, with an evolutionary perspective.

Professor:

Dr. Rebecca J. Houston

"Dr. Houston" or "Professor"

Pronouns: she/her/hers

rjhgss@rit.edu

Student (office) hours

T/Th 2:00 to 3:15pm

EAS 2354

LEARNING OBJECTIVES

By the end of the course, you can expect to:

- Describe the basic characteristics and functions of brain cells, brain structures, and their role in behavior;

- Characterize different neurotransmitter systems and how drugs affect these systems;

- Recognize and differentiate between different scientific methodology for investigating the neurobiological basis of behavior;

- Describe the neurological basis for sleep, reproduction, emotion, learning and behavior, language, and mental illness;

TEXTBOOK

Freberg, L. (2018) *Discovering Behavioral Neuroscience: An Introduction to Biological Psychology* (with MindTap). Cengage Learning.

This digital product includes the e-textbook as well as important assignments and resources used throughout the semester. See myCourses for more information on purchasing options. You will need to purchase access to MindTap for this course.

Course website

This course will use myCourses (https://mycourses.rit.edu) to disseminate announcements, materials, provide grade information, and facilitate communication among the instructor and students. You must log in using your RIT username and password and click on the course link.

3 CREDIT HOURS
PREREQUISITE: PSYC 101

COURSE ASSESSMENTS

The following are the course activities and assignments. Detailed information will be available on myCourses.

MindTap Chapter Activities

(25%) For each chapter, students will complete two activities in MindTap: 1) **mastery training** (1% each) and 2) a **chapter quiz** (1% each). Mastery training provides a platform for students to engage with the material in order to help solidify it in your memory. **You will need to start the mastery training at least 2 days before the deadline in order to complete it on time**. Once you've achieved the required level of mastery, you can continue to use the mastery training to help you study. The Chapter Quizzes will also take place in MindTap and will cover material primarily from the assigned readings (textbook chapters). The chapter quizzes are not timed. Chapter quizzes will be due weekly on Sundays while mastery training will be due weekly on Mondays (but students will need to begin the mastery training by Sundays at the latest). The two lowest grades on these MindTap activities will be dropped. **Mastery Training activities are NOT accepted late**. Late quizzes will be subjected to a 5% grade penalty per 24 hours late (e.g., a quiz submitted after 11:59 pm on due date, but before 11:59pm the next day would be penalized by 5%). These activities are designed to help you to keep up with the material, thus it is important to submit on time.

In-class Activities (10%)

Ten percent of your course grade will be based on participation in learning activities that take place in-class. These activities may range from simply taking attendance to more formal in-class group activities and are designed to aid in the understanding of the material and to promote class discussion. Some activities may require submission of short assignments in class or via myCourses. There will typically be some type of activity each week so regular attendance is highly encouraged.
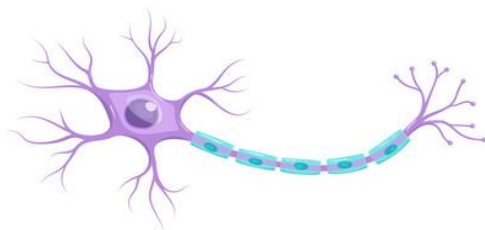
Exams (51%)

There will be 4 examinations in this course: 3 non-cumulative unit exams and 1 cumulative final exam. Fifty-seven percent (51%) of your course grade will be based on your 3 highest exam scores (17% each); the lowest score will be dropped. This means that the final exam is not required if you complete the 3 regular exams to your satisfaction (and taking the final cannot hurt your grade). The exams will be taken in class and are typically a combination of multiple choice and short answer questions. They may also include questions that require matching or labeling. Exams will cover topics discussed in lectures, class activities, *and* material from the textbook. The posted lecture slides provide guidance on the main topics. Note: PLEASE DO NOT ARRIVE LATE FOR EXAMS!! Exams will be distributed at the beginning of the class; if you are not there, you must come up to the front of the classroom to be seated and receive an exam. No exams will be distributed to incoming students after the first student in class has completed and turned in his/her exam.

Assignments (14%)

The course involves multiple assignments that will vary in terms of their requirements. This will include mindmap assignments to help students reflect on their general knowledge about the brain, assignments that involve gathering more in depth information about a specific topic or concept, and assignments to help students evaluate and, if needed, improve their learning and study strategies. Late assignment submissions will be subject to a late penalty 5% per 24 hours late. These assignments should be submitted through the appropriate Dropbox on myCourses.

Extra Credit

Students may opt to participate in psychological research for extra credit by participating in psychology research studies. These studies are conducted through an online platform called SONA, so research participation credits are called SONA credits. Each study lists the number of credits it offers. Studies give one credit per 15 minutes of participation plus a bonus credit for face-to-face studies. For our course, each SONA credit is worth 2 exam % points of extra credit and students may complete up to 5 SONA credits (equivalent to 10 % points on an exam; this is equivalent to one full letter grade on an exam). SONA credits must be completed by 5pm ET on the last day of classes (December 11, 2023). If you already have a SONA account, do not create a new one. Use the password recovery function to access your old account. If you have never made an account before, please visit https://people.rit.edu/amsgss/ for more information on how to make an account and use SONA. To begin participating in research you will need to first complete a 5-question prescreen which will ask about your age, hearing, and vision.

I may also assign other extra credit opportunities during the course. These will be announced in class and available via myCourses. **Extra Credit assignments will not be accepted late for any reason**.

GRADING

The following shows the relative weight of the various assessments in determining your final grade in the class.

Exams (best 3 out of 4)	3 @ 17% each	51%
Mastery Training (MindTap)*	10 @ 1.25% each	12.5%
Chapter Quizzes (MindTap)*	10 @ 1.25% each	12.5%
Exam Reflection Assignments	2 @ 2% each	4%
Mind Map Assignment 1		1%
Mind Map Assignment 2		3%
Unit Assignments	3 @ 2% each	6%
In-class Activities		10%
*two lowest MindTap assignments will be dropped	Total	100%

Final course letter grades will be assigned based on the following scale:

Percentage	+/- Equivalent	Institute GPA Equivalent
93-100	A	4.00
90-92	A-	3.67
87-89	B+	3.33
83-86	B	3.00
80-82	B-	2.67
77-79	C+	2.33
73-76	C	2.00
70-72	C-	1.67
60-69	D	1.00
<60.00	F	0.00

TIPS FOR SUCCESS

Managing Your Time

Manage your time is a key component of academic success. Much of the material for the course will be available in myCourses or MindTap early within each unit. Assignment instructions will also be available early. A good strategy is to schedule a regular time period each week to read the textbook, work on the various MindTap activities and unit assignments, and study for the exams.

Use Your Own Words!

When working on assignments that require writing outside of class, please do NOT copy directly from a source. Do not use direct quotes. Just **USE YOUR OWN WORDS**. This will show me that you understand the material. If it's someone else's wording, then that suggests that you haven't learned the concepts. In our course, I am most interested in your thoughts and ideas, not those of others! This includes any work written, created, or developed by artificial intelligence (such as ChatGPT). AI is an exciting new technology, but it cannot replace student ideas and work. All assignments will be subjected to multiple AI-checking softwares. Any work with a high probability of being written by AI will require a face-to-face discussion with the instructor. Students who are unable to verbally convey the ideas consistent with those in the written work will be penalized with a large reduction in their course grade, up to and including failure of the course. Repeated instances of plagiarism is ground for failing the course.

Use Active Study Strategies

Research has shown that study strategies in which students engage with the material is more successful than passively reading or looking over notes. This includes activities such as repeatedly quizzing yourself, reorganizing your notes, and studying over several days rather than cramming right before an exam.

Stay in Contact During the Course

Please utilize me as a resource to help you succeed. I want you to come away from this course feeling like you learned something and enjoyed it! If you run into problems, please reach out to me so we can work together to figure out a plan to improve your situation.

Student (Office) Hours

I will have student hours on Tuesdays and Thursdays 2 to 3:15 pm. Feel free to drop in to the student hours or make an appointment for a different time if that time does not work for you.

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POLICIES & EXPECTATIONS

Course Format

This is a face-to-face course. The course will include some lecture content as well as in-class activities and discussion. Note: there will be some instances in which students will be asked to view lecture videos prior to class so that we can use class time for more in-depth and active learning opportunities. Exams will take place in class. Students should bring paper and a writing instrument to class regularly for in-class activities. All major assignments in this course should be submitted online (unless completed in class) and each assignment will have a specified deadline. Please plan accordingly and get in touch with me if you run into any issues.

Contacting the Instructor

I am very willing to communicate with you to answer any questions you might have. Please email me to determine the extent of your questions and we can then arrange whether an email response, videoconference or phone conversation will work best for you. Please remember, I am not online 24 hours a day. I try to check email regularly during weekdays, when possible, and at least once per day on the weekends. I will try to respond to your queries as soon as possible (within 24 hours on a weekday, although usually sooner than that). Please plan ahead when contacting me. For example, if you email me 10 minutes before a deadline, it's highly unlikely I will be able to respond immediately.

Disability Services Offices

RIT is committed to providing academic adjustments to students with disabilities. If you would like to request adjustments such as special seating or testing modifications due to a disability, please contact the Disability Services Office. It is located in the Student Alumni Union, Room 1150; the website is www.rit.edu/dso. After you receive adjustment approval, it is imperative that you see me during office hours so that we can work out whatever arrangement is necessary.

Submitting Assignments

It is your responsibility to ensure that you have reliable internet access. If you do not have reliable internet access, please reach out to me immediately so we can determine whether there are resources available to assist. I also recommend, if at all possible, you have plans for a back-up internet source should you have problems with your regular source. **A lack of internet access or technical difficulties with your computer will not be accepted as an excuse for missing course due dates**. If you experience internet access difficulties, please contact me immediately. This means that you should plan ahead when submitting assignments (i.e., avoid submitting at the last minute). For example, if a computer issue arises when trying to submit a quiz or assignment resulting in a late submission, grade penalties for a late submission will apply.

Student Well-being

Student well-being can have a significant impact on course performance. If any student faces challenges related to securing food or housing or mental or physical well-being, please contact Tigers Care (www.rit.edu/tigerscare), the RIT Counseling and Psychological Services Center (https://www.rit.edu/studentaffairs/student-wellness/counseling-center), or the Office of Student Affairs (https://www.rit.edu/studentaffairs/). If you feel comfortable, please contact me and I will do my best to get you in touch with the appropriate resources to help put you in the best possible position to succeed. Please be aware that RIT faculty are considered "Responsible Employees," which means that we are required to report Title IX violations (e.g., discrimination, harassment) to the appropriate authorities. If this is a concern, there are also a number of confidential reporting options on and off campus (see University Policy D19). Title IX violations are taken very seriously at RIT. RIT is committed to investigate complaints of sexual discrimination, sexual harassment, sexual assault and other sexual misconduct, and to ensure that appropriate action is taken to stop the behavior, prevent its recurrence and remedy its effects.

RIT Resources for Students

In addition to the resources above, RIT has a number of resources designed to help students succeed. These range from academic resources, such as the Writing Center, to Wellness resources, Personal Development resources, and Career Guidance. Please see the Student Resource page for a full listing.

Policy on Academic Dishonesty

RIT expects that all students will conduct themselves in an honest and ethical manner, particularly with regard to their coursework. Please review RIT's
Academic Integrity Policy
(http://www.rit.edu/academicaffairs/policiesmanual/d080)
Honor Code
(https://www.rit.edu/academicaffairs/policiesmanual/p030) and
Student Conduct Policy
(https://www.rit.edu/academicaffairs/policiesmanual/d180)
and contact me if you have any questions. Please be aware that violations related to academic dishonesty (e.g., cheating, plagiarizing, or duplicating work for similar courses) will result in a grade of "0" for the specific assignment and may result in a grade of "F" for the course. In addition, such instances will be reported to the Psychology Department Chair and your Academic Advisor.

Copyrighted material

Many materials used in this course are protected by copyright and may not be copied or distributed by students. This includes posting to study assistance sites (e.g., Quizlet, Course Hero). You can find more information at
http://www.rit.edu/academicaffairs/policiesmanual/sectionC/C3_2.html.

Policy on Grade of Incomplete

Incomplete grades can only be given under special circumstances beyond the student's control, as described by University policy (https://www.rit.edu/academicaffairs/policiesmanual/d050, and as such, are very rare. Students are encouraged to meet with the instructor as soon as possible if they find that their ability to complete the class is in jeopardy.

COURSE SCHEDULE

Tentative Course Schedule (subject to change)

Class meets from 12:30 pm to 1:45 pm on T/Th each week unless otherwise specified

Black text = task completed via myCourses

Purple text = task completed via MindTap

Week	Class Mtgs	Topic	Tasks & Deadlines
1	Tues, Aug 29	Introduction	
	Thurs, Aug 31	Chapter 1: What is Behavioral Neuroscience?	
		UNIT 1 FOUNDATIONS	
2	Tues, Sep 5 Thurs, Sep 7	*Sept 5th - Last Day to Drop/Add*	
		Chapter 1: What is Behavioral Neuroscience? Chapter 2: Functional Neuroanatomy	
3	Tues, Sep 12 Thurs, Sep 14	Chapter 2: Functional Neuroanatomy	• Ch 1 Quiz due Sun, Sep 10 • Complete Ch 1 Mastery Training by Mon, Sep 11 • Mind Map #1 due Mon, Sep 11
4	Tues, Sep 19 Thurs, Sep 21	Chapter 3: Neurophysiology: The Structure and Functions of Cells of the Nervous System	• Ch 2 Quiz due Sun, Sep 17 • Complete Ch 2 Mastery Training by Mon, Sep 18
5	Tues, Sep 26 Thurs, Sep 28	Chapter 4: Psychopharmacology	• Ch 3 Quiz due Sun, Sep 24 • Complete Ch 3 Mastery Training by Mon, Sep 25 • Unit 1 Assignment due Mon, Sep 25
6	Tues, Oct 3 **Thurs Oct 5**	**UNIT 1 EXAM**	• Ch 4 Quiz due Sun, Oct 1 • Complete Ch 4 Mastery Training by Mon, Oct 2
		UNIT 2 BEHAVIOR AND COGNITION	
7	*Tues, Oct 10* Thurs, Oct 12	*Oct 9 & 10 – Fall Break – No Class* Chapter 10: Sexual Behavior	
8	Tues, Oct 17 Thurs, Oct 19	Chapter 11: Sleep and Waking	• Ch 10 Quiz due Sun, Oct 15 • Complete Ch 10 Mastery Training by Mon, Oct 16 • Unit 1 Exam Reflection due Mon, Oct 16
9	Tues, Oct 24 Thurs, Oct 26	Chapter 12: Learning and Memory	• Ch 11 Quiz due Sun, Oct 22 • Complete Ch 11 Mastery Training by Mon, Oct 23
10	Tues, Oct 31 Thurs, Nov 2	Chapter 13: Cognitive Neuroscience	• Chapter 12 Quiz due Sunday, Oct 29 • Complete Ch 12 Mastery Training by Mon, Oct 30 • Unit 2 Assignment due Mon, Oct 30
11	Tues, Nov 7 **Thurs, Nov 9**	**UNIT 2 EXAM**	• Ch 13 Quiz due Sun, Nov 5 • Complete Ch 13 Mastery Training by Mon, Nov 6
		UNIT 3 BEHAVIOR AND DISORDERS	
12	Tues, Nov 14 Thurs, Nov 16	Chapter 14: Emotion, Aggression, & Stress	
13	Tues, Nov 21 *Thurs, Nov 23*	Chapter 15: Neuropsychology *Nov 22-24 - Thanksgiving Break – No class*	• Ch 14 Quiz due Sun, Oct Nov 19 • Complete Ch 14 Mastery Training by Mon, Nov 20 • Unit 2 Exam Reflection due Mon, Nov 20
14	Tues, Nov 28 Thurs, Nov 30	Chapter 15: Neuropsychology Chapter 16: Psychopathology	• Ch 15 Quiz due Sun, Nov 26 • Complete Ch 15 Mastery Training by Mon, Nov 27
15	Tues, Dec 5 **Thurs, Dec 7**	Chapter 16: Psychopathology **UNIT 3 EXAM**	• Ch 16 Quiz due Sun, Dec 3 • Complete Ch 16 Mastery Training by Mon, Dec 4 • Unit 3 Assignment due Mon, Dec 4
16		*Dec 12th – Reading Day*	• Mind Map #2 due Mon, Dec 11th
	FINALS	**FINAL EXAM – Thursday, Dec 14th**	1:30pm to 4:00 pm