

Instructor/TA Info

Instructor Information

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TA Information

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Course Information

Description

Welcome to PSYCH 381,

The content of this course was selected to provide upper-level knowledge on the principles of behavioral neurobiology as they relate to the 5 core competencies outlined by the American Psychological Association: (1) knowledge base in psychology, (2) scientific inquiry and creative thinking, (3) ethical and social responsibility, (4) communication, and (5) professional development. As your instructor, I will do all I can to ensure that you gain a solid foundation in these core competencies in the context of behavioral neurobiology.

There are several units of analysis relevant to human experience. Four units of analysis were traditionally studied within the field of neuroscience (i.e., circuits, cells, molecules, and genes), one unit was traditionally studied within the field of physiological psychology (i.e., physiology), and three were traditionally studied within psychology (i.e., behavior, self-report, paradigms). In isolation, these units of analysis provide an incomplete picture of human experience. Therefore, in accordance with the original perspective of psychology promoted by Wilhelm Wundt, we will use each of these units of analysis to understand a wide range of psychological topics. I will encourage you to take the next step by beginning to think about how integrating knowledge across units of analysis can enhance your ability to improve the human condition.

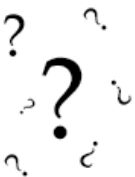
Prerequisites

PSYCH 307

PSYCH 309

PSYCH 310 or NEURO 205

Materials

Item	Price (new)	Price (used)
 IClicker+ - Required by ICLICKER	47.00	

Learning Outcomes

1. The brain, experience, and behavior

Students will develop their understanding of how the brain influences one's experience of the world and one's behavior in it.

Measurement: In-class quizzes and/or exams on assigned textbook reading, lectures, and class discussions and written reports and/or in-class presentations of self-selected articles from the scientific literature.

2. Scientific methods and behavioral neurobiology

Students will identify scientific methods, especially those of cognitive neuroscience, that are valuable in behavioral neurobiology.

Measurement: In-class quizzes and/or exams on assigned textbook reading, lectures, and class discussions and written reports and/or in-class presentations of self-selected articles from the scientific literature.

3. Diseases, trauma, drug usage, hormones, and genes

Students will extend concepts and research findings to diseases, trauma, drug usage, hormones, and genes.

Measurement: In-class quizzes and/or exams on assigned textbook reading, lectures, and class discussions and written reports and/or in-class presentations of self-selected articles from the scientific literature.

Grading Scale

Grades	Percent
A	93%
A-	90%
B+	87%
B	83%
B-	80%
C+	77%
C	73%
C-	70%
D+	67%
D	63%
D-	60%
E	0%

Grading Policy

Course Components

Your grade for this class will be based on points earned in the following categories:

1. Midterm Exam (100 points): The midterm will cover Chapters 1-8 and will include 50 multiple-choice questions.

2. Final Exam (100 points): The final will cover Chapters 9-16 and will include 50 multiple-choice questions.

3. Pop quizzes (100 points): There will be 10 pop quizzes throughout the course. You will be able to earn up to 10 points each. These quizzes will take place anytime during the class, but will usually take place within the first few minutes to encourage punctuality. These quizzes will cover major points from the assigned readings. Unexcused absences/late arrivals will not qualify for these points. The lowest quiz score will be dropped.

4. Experiential Neuroimaging Assignment (50 points): Each student will need to attend a magnetic resonance imaging (MRI) scan conducted by Dr. Kay at the MR Facility during the class period. Each student will be provided with a copy of the scan. You will need to download neuroimaging software to your personal computer and use this program to answer questions, identify the x,y,z coordinates for specific brain regions, and make brain images that highlight specific brain regions. The details for this assignment can be found in the Content tab on Learning Suite. If you miss the submission deadline, you can submit the assignment late but this will come with a penalty of -5 points per day it is late. This assignment will be graded by your TA.

5. Experiential Research Assignment (50 points): Identify a psychological construct for which you would like to become the world expert. Go to Pubmed (<http://www.ncbi.nlm.nih.gov/pubmed>) (<http://www.ncbi.nlm.nih.gov/pubmed>)) and identify a research article that measures that construct at 2 or more units of analysis. One unit must be a traditional "neuroscience" unit (genes – physiology) and another one needs to be a traditional psychology unit (behavior, self-report, paradigms). Download or go to the library

to make a copy of the article. Read the entire article. Write an essay (1-2 pages, 12-point font, double spaced, Times New Roman, .5 inch margins). The details for this assignment can be found in the Content tab on Learning Suite. If you miss the submission deadline, you can submit the assignment late but this will come with a penalty of -5 points per day it is late. This assignment will be graded by your TA.

6. Extra Credit: You will receive 10 extra credit points by completing the end of semester course evaluation.

Participation Policy

Lectures are designed to encourage participation. You will need to purchase an i-clicker from the BYU bookstore so that you can complete the in-class pop quizzes and other in-class activities.

During class discussions, please be mindful and respectful of your fellow students by:

1. Asking questions that are thoughtful, critical to understanding course material, and promote discussion. Before making a comment or asking a question, reflect on whether it might help other students in the class, could be answered by reading the material, or might be best saved for discussion during office hours.
2. Be aware of how often you make comments. If you find you are making a lot of comments, make sure you are allowing others to participate by giving them time to respond. For those of you who are more reserved, maybe set a goal to make at least one comment every other week.

Attendance Policy

Students are expected to be on time and present for all classes. Attendance will not be formally measured. As a matter of mutual courtesy, please let the instructor or TA know when you're going to be late, when you're going to miss class, or if you need to leave early. Students who have extraordinary circumstances preventing attendance, or who must leave early, should explain these circumstances to the instructor or TA prior to the scheduled class, or as soon as possible thereafter so that you can obtain the attendance points for those days. The instructor will then make an effort to accommodate reasonable requests. You are responsible for the content of all classes, including issues raised in the spontaneous class discussions. If you must miss a class, please request notes from your classmates.

Study Habits

Completing the assigned reading before class, attending all classes, and taking advantage of office hours will increase your chances of learning the material and doing well in this course. Study rooms in the library are a great place to study class material and can be reserved in the library at <https://groupstudy.lib.byu.edu/>.

Assignments

Assignment Descriptions

Neuroimaging Assignment

Oct
11

Due: Wednesday, Oct 11 at 11:59 pm

See Content tab

Midterm

Oct
27

Due: Friday, Oct 27 at 10:00 am

Chapter 1-8, not including chapter 6

Research Writing Assignment

Nov
29

Due: Wednesday, Nov 29 at 11:59 pm

End of Semester Evaluation

Dec
08

Due: Friday, Dec 08 at 11:59 am

Quiz 4

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Quiz 9

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Quiz 6

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Quiz 1

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Quiz 8

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Quiz 3

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Quiz 2

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Quiz 7

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Quiz 5

Dec
13

Due: Wednesday, Dec 13 at 11:59 pm

Final

Chapters 8-14 Final Exam: 270 SWKT 7:00am - 10:00am

Quiz 10

University Policies

Honor Code

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and every instructor's expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

Preventing Sexual Misconduct

In accordance with Title IX of the Education Amendments of 1972, Brigham Young University prohibits unlawful sex discrimination against any participant in its education programs or activities. The university also prohibits sexual harassment-including sexual violence-committed by or against students, university employees, and visitors to campus. As outlined in university policy, sexual harassment, dating violence, domestic violence, sexual assault, and stalking are considered forms of "Sexual Misconduct" prohibited by the university.

University policy requires all university employees in a teaching, managerial, or supervisory role to report all incidents of Sexual Misconduct that come to their attention in any way, including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Incidents of Sexual Misconduct should be reported to the Title IX Coordinator at t9coordinator@byu.edu or (801) 422-8692. Reports may also be submitted through EthicsPoint at <https://titleix.byu.edu/report> (<https://titleix.byu.edu/report>) or 1-888-238-1062 (24-hours a day).

BYU offers confidential resources for those affected by Sexual Misconduct, including the university's Victim Advocate, as well as a number of non-confidential resources and services that may be helpful. Additional information about Title IX, the university's Sexual Misconduct Policy, reporting requirements, and resources can be found at <http://titleix.byu.edu> (<http://titleix.byu.edu>) or by contacting the university's Title IX Coordinator.

Student Disability

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact the University Accessibility Center (UAC), 2170 WSC or 422-2767. Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. The UAC can also assess students for learning, attention, and emotional concerns. Services are coordinated with the student and instructor by the UAC. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures by contacting the Equal Employment Office at 422-5895, D-285 ASB.

Academic Honesty

The first injunction of the Honor Code is the call to "be honest." Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life's work, but also to build character. "President David O. McKay taught that character is the highest aim of education" (The Aims of a

BYU Education, p.6). It is the purpose of the BYU Academic Honesty Policy to assist in fulfilling that aim. BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct.

Deliberation Guidelines

To facilitate productive and open discussions about sensitive topics about which there are differing opinions, members of the BYU community should: (1) Remember that we are each responsible for enabling a productive, respectful dialogue. (2) To enable time for everyone to speak, strive to be concise with your thoughts. (3) Respect all speakers by listening actively. (4) Treat others with the respect that you would like them to treat you with, regardless of your differences. (5) Do not interrupt others. (6) Always try to understand what is being said before you respond. (7) Ask for clarification instead of making assumptions. (8) When countering an idea, or making one initially, demonstrate that you are listening to what is being said by others. Try to validate other positions as you assert your own, which aids in dialogue, versus attack. (9) Under no circumstances should an argument continue out of the classroom when someone does not want it to. Extending these conversations beyond class can be productive, but we must agree to do so respectfully, ethically, and with attention to individuals' requests for confidentiality and discretion. (10) Remember that exposing yourself to different perspectives helps you to evaluate your own beliefs more clearly and learn new information. (11) Remember that just because you do not agree with a person's statements, it does not mean that you cannot get along with that person. (12) Speak with your professor privately if you feel that the classroom environment has become hostile, biased, or intimidating. Adapted from the Deliberation Guidelines published by The Center for Democratic Deliberation.

(<http://cdd.la.psu.edu/education/The%20CDD%20Deliberation%20Guidelines.pdf/view?searchterm=deliberation%20guidelines>)

Devotional Attendance

Brigham Young University's devotional and forum assemblies are an important part of your BYU experience. President Cecil O. Samuelson said, "We have special and enlightening series of devotional and forum assemblies...that will complement, supplement, and enrich what will also be a very productive period in your classrooms, laboratories, and libraries. We look forward to being with you each Tuesday...and hope that you will regularly attend and bring your friends and associates with you...A large part of what constitutes the unique 'BYU experience' is found in these gatherings where the Spirit has been invited and where we have the opportunity to discuss and consider things of ultimate worth and importance that are not afforded to the academic community on almost any other campus" (from the address "The Legacy of Learning", 30 August, 2005). Your attendance at each forum and devotional is strongly encouraged.

Inappropriate Use Of Course Materials

All course materials (e.g., outlines, handouts, syllabi, exams, quizzes, PowerPoint presentations, lectures, audio and video recordings, etc.) are proprietary. Students are prohibited from posting or selling any such course materials without the express written permission of the professor teaching this course. To do so is a violation of the Brigham Young University Honor Code.

Mental Health Concerns

Mental health concerns and stressful life events can affect students' academic performance and quality of life. BYU Counseling and Psychological Services (CAPS, 1500 WSC, 801-422-3035, caps.byu.edu) provides individual, couples, and group counseling, as well as stress management services. These services are confidential and are provided by the university at no cost for full-time students. For general information please visit <https://caps.byu.edu> (<https://caps.byu.edu>); for more immediate concerns please visit <http://help.byu.edu> (<http://help.byu.edu>).

Plagiarism

Intentional plagiarism is a form of intellectual theft that violates widely recognized principles of academic integrity as well as the Honor Code. Such plagiarism may subject the student to appropriate disciplinary action administered through the university Honor Code Office, in addition to academic sanctions that may be applied by an instructor. Inadvertent plagiarism, which may not be a violation of the Honor Code, is nevertheless a form of intellectual carelessness that is unacceptable in the academic community. Plagiarism of any kind is

completely contrary to the established practices of higher education where all members of the university are expected to acknowledge the original intellectual work of others that is included in their own work. In some cases, plagiarism may also involve violations of copyright law. Intentional Plagiarism-Intentional plagiarism is the deliberate act of representing the words, ideas, or data of another as one's own without providing proper attribution to the author through quotation, reference, or footnote. Inadvertent Plagiarism-Inadvertent plagiarism involves the inappropriate, but non-deliberate, use of another's words, ideas, or data without proper attribution. Inadvertent plagiarism usually results from an ignorant failure to follow established rules for documenting sources or from simply not being sufficiently careful in research and writing. Although not a violation of the Honor Code, inadvertent plagiarism is a form of academic misconduct for which an instructor can impose appropriate academic sanctions. Students who are in doubt as to whether they are providing proper attribution have the responsibility to consult with their instructor and obtain guidance. Examples of plagiarism include: Direct Plagiarism-The verbatim copying of an original source without acknowledging the source. Paraphrased Plagiarism-The paraphrasing, without acknowledgement, of ideas from another that the reader might mistake for the author's own. Plagiarism Mosaic-The borrowing of words, ideas, or data from an original source and blending this original material with one's own without acknowledging the source. Insufficient Acknowledgement-The partial or incomplete attribution of words, ideas, or data from an original source. Plagiarism may occur with respect to unpublished as well as published material. Copying another student's work and submitting it as one's own individual work without proper attribution is a serious form of plagiarism.

Respectful Environment

"Sadly, from time to time, we do hear reports of those who are at best insensitive and at worst insulting in their comments to and about others... We hear derogatory and sometimes even defamatory comments about those with different political, athletic, or ethnic views or experiences. Such behavior is completely out of place at BYU, and I enlist the aid of all to monitor carefully and, if necessary, correct any such that might occur here, however inadvertent or unintentional. "I worry particularly about demeaning comments made about the career or major choices of women or men either directly or about members of the BYU community generally. We must remember that personal agency is a fundamental principle and that none of us has the right or option to criticize the lawful choices of another." President Cecil O. Samuelson, Annual University Conference, August 24, 2010 "Occasionally, we ... hear reports that our female faculty feel disrespected, especially by students, for choosing to work at BYU, even though each one has been approved by the BYU Board of Trustees. Brothers and sisters, these things ought not to be. Not here. Not at a university that shares a constitution with the School of the Prophets." Vice President John S. Tanner, Annual University Conference, August 24, 2010

Schedule

Date	Dates and Deadlines	Reading/Topic Schedule
Week 1		
W Sep 06 Wednesday		
F Sep 08 Friday		Neuroscience in the Twenty-First Century: Chapter 1.1 and 1.2 Please read critically and with the intention of discussing strengths and weaknesses of the perspectives presented by the authors of your book.
Week 2		
M Sep 11 Monday		Physiology and Circuits Units of Analysis: Chapter 2

W Sep 13 Wednesday		Today we will finish talking about sections 2.5 and 2.4, then we will move on to sections 2.1.
F Sep 15 Friday		Today we will discuss section 2.2 and 2.3. I will bring in a human brain to help demonstrate gross anatomy.
Week 3		
M Sep 18 Monday		We will finish talking about brain anatomy today.
W Sep 20 Wednesday		Chapter 7.1, 7.3, and 7.4
F Sep 22 Friday		Today, students with their last name beginning with A-L (not including M) will meet at the MRI Facility. McDonald Building room 155. Students with their last name beginning with M-Z will meet in our class and Rory will go over neuroanatomy.
Week 4		
M Sep 25 Monday		Cells Unit of Analysis: Chapter 3.1 and Chapter 4
W Sep 27 Wednesday		Chapter 7.2
F Sep 29 Friday		Today, students with their last name beginning with M-Z will meet at the MRI Facility. McDonald Building room 155. Students with their last name beginning with A-L will meet in our class and Rory will go over neuroanatomy.
Week 5		
M Oct 02 Monday		Molecules Unit of Analysis: Chapter 5.1 - 5.3
W Oct 04 Wednesday		Chapter 7.1

F Oct 06 Friday		Everyone will meet in the normal classroom, and Dr. Steffensen will give a presentation about animal research.
Week 6		
M Oct 09 Monday		
W Oct 11 Wednesday	Neuroimaging Assignment	Genes Unit of Analysis: Chapter 3.2, 3.3, and Chapter 7.5
F Oct 13 Friday		
Week 7		
M Oct 16 Monday		
W Oct 18 Wednesday		Chapter 8
F Oct 20 Friday		
Week 8		
M Oct 23 Monday		
W Oct 25 Wednesday		
F Oct 27 Friday	Midterm	
Week 9		
M Oct 30 Monday	Today the lecture will be about Chapter 6, how drugs affect the brain.	Chapter 6.1- 6.2
W Nov 01 Wednesday		Chapter 10.2
F Nov 03 Friday		Chapter 10.4 Auditory perception demonstration (McPherson)
Week 10		
M Nov 06 Monday		Chapter 11
W Nov 08 Wednesday		
F Nov 10 Friday		
Week 11		
M Nov 13 Monday		Chapter 12
W Nov 15 Wednesday		
F Nov 17 Friday		
Week 12		
M Nov 20 Monday		Chapter 13

T Nov 21 Tuesday	Friday Instruction	
W Nov 22 Wednesday	No Classes	
Th Nov 23 Thursday	Thanksgiving	
F Nov 24 Friday	Thanksgiving Holiday	
Week 13		
M Nov 27 Monday		Chapter 5.4
W Nov 29 Wednesday	Research Writing Assignment	Chapter 14
F Dec 01 Friday		
Week 14		
M Dec 04 Monday		Chapter 15
W Dec 06 Wednesday		
F Dec 08 Friday	End of Semester Evaluation	
Week 15		
M Dec 11 Monday		Chapter 16
W Dec 13 Wednesday		
Th Dec 14 Thursday		
F Dec 15 Friday	Fall Exam Preparation (12/15/2017 - 12/15/2017)	
Week 16		
M Dec 18 Monday	Final	Final Exam: 270 SWKT 7:00am - 10:00am
W Dec 20 Wednesday		