

PSY 331: Neuroscience

FALL 2019 ——— 3 Credits

MARIAN UNIVERSITY
COLLEGE OF ARTS, SCIENCE, & LETTERS
Department of Social, Behavioral, and Forensic Sciences

Why should you take (and be interested in) this class?

The brain is one of the last mysteries of the body. It is a complex organ that shapes our every experience: from automatically controlling and monitoring our most basic functions to interpreting the world around us to planning and making decisions. In this class we will learn more about how the brain functions on its most basic levels and then explore several important processes such as vision, movement, sleep, memory, and language. We will also explore what happens when the brain functions abnormally.

Whether you are going into the medical field as a nursing student or are interested in counseling others, a more in-depth understanding of the brain and its functions will help you better understand yourself and others.

In this class, there will be at least one thing you discover that will excite you, and that will influence how you see the world!

Catalog Description: An examination of the data and theories which help us to understand the connections between our bodies and our actions. The anatomical, physiological, and chemical correlates of a wide range of human activities, from simple reflexes to complex decision making and thinking, is examined. The issue of brain damage and recovery from it is also considered.

Who is your professor?

Dr. Kidder (she/her) is an assistant professor of psychology at Marian University. She completed her Bachelors in Psychology at Lock Haven University in Pennsylvania and her Masters and Ph.D. at the University of Texas at El Paso. There, she taught as a graduate student instructor. Dr. Kidder teaches general psychology, statistics for social science, research methods, social psychology, cognitive psychology, neuroscience and history and systems in psychology. She and her family (husband and two kids) have lived in Fond du Lac since 2016.

Contact Information

Email: ckkidder08@marianuniversity.edu

Office Hours: Monday 2-2:45, Wednesday 10-11, Thursday 2-3 OR by appointment

Office: Administration Building 301E

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What textbook do I need for this class?

We will be using a variety of open source materials for this course, including websites, videos, and PDF readings. If you prefer hard copies of readings, many readings can be printed off. I am happy to help anyone if they need assistance formatting materials for printing and accessibility.

You will also need reliable internet access and a working knowledge of MO2. Because of the nature of technology, you need to anticipate that there are sometimes outages. **You should have a back-up plan for technology issues including alternative devices, internet access, and file back-ups.** The campus or your local library work great for device and internet back-up. I recommend using cloud storage for all of your files. I am happy to chat with anyone if you need help setting something up. There are free options through Marian or from other widely-available platforms.

You will also need to regularly check your university email for course updates

What am I getting graded on (a.k.a. how will I show what I have learned)?

Your grade is a culmination of your demonstration of learning in this class. Your learning will be assessed through several assignments to give you the opportunity to demonstrate use of the course concepts in different ways.

Formative Assessment

As you are working through the material, it is important to identify the concepts you know and the concepts you don't. This allows you to know what questions to ask, or what supplemental resources to use.

In this class, formative assessments will take place in the form of **weekly quizzes and discussions.**

Each week you will have assigned readings and videos. Upon completing those assignments, you will have a multiple choice quiz. Within the quiz, you will have multiple tries at a particular question, this helps you learn the information. You will also have the opportunity to re-take the quiz one time, which may include new questions. **Each quiz is worth 5 points.** Over the course, there are 13 quizzes. **Your lowest quiz grades will be dropped from your overall grade.** This will include any quiz you miss. Quizzes make up 10% of your overall grade (60/600 points).

In addition to quizzes, you will complete small group discussions on current research in neuroscience. These discussions will help you explore neuroscience beyond the material for the course, and help us understand where the field is headed. Discussions will require multiple engagements throughout the week. There are 10 total discussion, **each discussion is worth 9 points.** Discussions make up 15% of your overall grade (90/600 points).

Summative Assessment

Mastering the course material comes from incorporating feedback from quizzes and discussions. You will demonstrate how well you have learned the concepts from the course in a few different ways.

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Exams: The largest portion of your grade is made up of 4 exams. These exams will assess your ability to recognize, explain and apply course concepts through multiple choice, short answer, and diagram questions. Exams must be completed within the 24 hours it is assigned. Exams will also have a time limit. It will be important to take notes on the readings, videos, websites and quizzes while you learn the material, and to organize that material prior to taking the exam. Failure to do so may make it difficult to complete the exam in the time allotted. **Each exam is worth 60 points**, for a combined 40% of your overall grade (240/600 points).

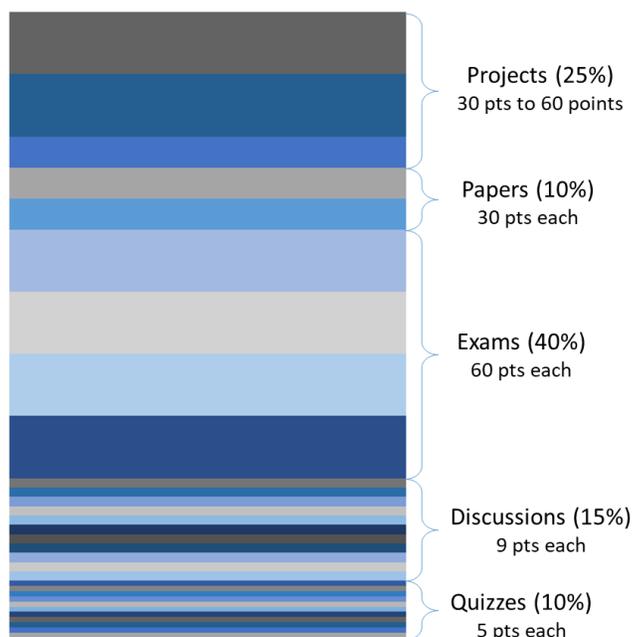
Application Papers: During the course you will write two short application papers. These papers will require you to engage with the neuroscience literature and to think about how neuroscientific topics relate to the real world. Your first paper, will explore how neuroscience relates specifically to your future career. Your second paper will give you an opportunity to more deeply explore a topic from the second half of the course. More information on these assignments are detailed on MO2. **Each paper is worth 30 points**, and combined, are worth 10% of your overall grade (60/600 points).

Projects: Throughout the course, you will complete three projects. The first project is a collaborative wiki on brain structures. This will allow the class to have a resource for brain structures we will not have a chance to cover as a class, but will need to know about in future chapters. **This wiki project is worth 30 points** or 5% of your overall grade.

For second project you will create an infographic or short animated video on one of the sensory systems we do not cover as a class. **This sensory system project will be worth 60 points**, or 10% of your overall grade.

Finally, the third project is your final. You will design and create a game that demonstrates what you have learned throughout the course. **This final project is worth 60 points** or 10% of your overall grade.

Grading Summary:



LETTER GRADES	
100-92.5%	A
92.4-89.5	A-
89.4-86.5%	B+
86.4-82.5%	B
82.4-79.5%	B-
79.4-76.5%	C+
76.4-72.5%	C
72.4-69.5%	C-
69.4-66.5%	D+
66.4-62.5%	D
62.4-59.5%	D-
Below 59.5%	F

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What will I learn about in this class?

Introduction to Neuroscience
Nervous System
Action Potential
Synaptic Communication
Brain Anatomy
Genes
Evolution
Brain Development
Vision

Pain
Movement
Sleep
Consciousness
Learning
Memory
Cognitive Functions
Brain Disorders

What are the learning goals and outcomes that this course assesses?

Psychology Program Learning Outcomes

1. Knowledge Base: *Describe and apply key concepts, principles, and overarching themes in psychology. Assessed with quizzes and exams.*
2. Scientific Inquiry & Critical Thinking: *2.2 Demonstrate psychology information literacy. Assessed with Application Paper 2.*
3. Ethical and Social Responsibility.: *3.1 Apply ethical standards to evaluate to psychological science and practice. Assessed with Application Paper 2.*
4. Communication: *4.2 Exhibit effective presentation skills for different purposes. Assessed with Sensory Systems Project.*
5. Professional Development.: *5.1 Apply psychological content and skills to career goals. Assessed with Application Paper 1.*

What are the expectations for this (online) classroom and campus wide of me?

Students are encouraged to maximize their learning experience at Marian University. Ideal learning takes place in an environment where trust, mutual respect and active engagement are valued and observed by all participants. Students at Marian University are expected to conduct themselves in a manner appropriate to a professional setting. Students are expected to be respectful of the learning environment established by the instructor. No student has the right to be disruptive, disrespectful or uncivil in their conduct – including language – in any setting at Marian University, including online, Facebook, and other web-based venues. A student who the instructor believes is acting inappropriately in the classroom may be asked to leave the class for a session or longer, or may be administratively withdrawn by University officials.

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Do I have to go to class?

Attendance is taken weekly based on timely engagement with course materials and/or discussions. I do not grade based on attendance, but failure to log-in and engage with course materials and activities regularly will likely impact your ability to complete course assessments successfully. If something comes up that prevents you from completing components of this course, you need to discuss it with me immediately. According to the published tuition rates, this class costs about \$2750.

Can I turn in things late?

I understand that things happen in your lives. Because of that, **you have ONE, 48hr extension on any course task (not for use on the final project), no questions asked.** If you wish to use this extension, simply send me an email 12 hrs. before or after the due date and time, to let me know that you are using your free pass. All other late work will be accepted only on a case-by-case basis.

I have assigned due dates for specific times. I expect that for the most part, you will adhere to these deadlines. I am willing to be flexible to a point, so can accept work turned in within a few hours of the deadline. However, I reserve the right to refuse late work and will do so if I feel anyone is taking advantage of my flexibility.

Academic Honesty Policy (about cheating and plagiarism):

The rules and procedures dealing with academic honesty set forth in the Marian University Academic Bulletin will be followed in this class. Students are expected to have familiarized themselves with these rules and procedures. This applies to cheating, plagiarism and intentional misrepresentation of the truth. If a paper is prepared by a student for this class, it is expected that the paper will be the student's own work and that any use of the work of another in a student's paper be properly quoted and cited.

All work in this class must be your own words with proper citation. In this class, quoting is rarely appropriate. Here are some common examples of academic dishonesty in this class:

- Copy-pasting from a textbook or website (even with citation) is plagiarism.
- Failure to cite is considered plagiarism.
- Working with another student on an application paper considered cheating.
- Working with another student, or giving another student the answers, on quizzes or exams is considered cheating.

Students suspected of these or any other form of academic dishonesty will be notified and face consequences in this course (e.g., a zero on an assignment) and may result in a report to the Office of Academic Affairs.

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Where can I get help?

Office Hours. Office hours are one of the ways in which I make myself available to answer questions about this course, your academic goals, or even just a chat. Office hours means that I am in my office specifically to meet with students. These are drop-in times, so you don't need to let me know that you are coming, you just have to show up!!!!

Tutoring. Marian offers free peer tutoring through the Learning Center (2nd floor of the library). If you are struggling in this (or another) class, check out this great resource.

Mental Health. If you are struggling with your mental health and need support, Marian offers free, confidential Counseling services to all students on campus between 8am and 4:30pm. Call 920-923-8799 or 920-923-7615 to schedule an appointment or stop into room 010 in the lower level of Regina Hall for urgent needs. If you are experiencing a crisis after hours, you can call the Fond du Lac County 24-Hour Crisis Line at 920-929-3535, The National Suicide Prevention Lifeline: 1-800-273-8255, or call 911. Please let me know if you need help finding off-campus mental health resources.

Statement Regarding Accessibility Resources. Marian University will provide reasonable accommodations to qualified people with disabilities. If you feel you need accommodations to fully participate in this class, please contact Lisa Olig, Director of Accessibility Resources, at 920-923-8951.

Marian University Credit Hour Policy (or how many hours can I expect to put into this class?):

According to commonly-accepted collegiate academic practices, success in this 3-credit course requires work equivalent to a minimum of 135 hours of work; **Over 14 weeks of classes, that's more than 9 hours of class related work per week!** It will be important to plan your work accordingly and start assignments prior to their due dates in order to have enough time to complete them (and to reach out for help when needed). Work ahead when possible!!

Coursework includes: quizzes, discussions, assignments, application papers, projects, and exams.

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When is stuff due?

September

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
LABOR DAY	3 <i>Classes Begin</i> Syllabus Quiz by 11:55 pm	4 Initial Post Discussion 1 by 11:59 pm	5 First Reply Set Discussion 1 by 11:59 pm	6 Second Reply Set Discussion 1 by 11:59 pm	7 Quiz 1 on Introduction to Neuroscience by 11:55 pm
9	10	11	12	13 Application Paper 1 by 11:55 pm	14 Quiz 2 on Neurons by 11:55 pm
16	17	18 Initial Post Discussion 2 by 11:59 pm	19 First Reply Set Discussion 2 by 11:59 pm	20 Second Reply Set Discussion 2 by 11:59 pm	21 Quiz 3 on Neurons/Synapses by 11:55 pm
23	24	25 Quiz 4 on Neurotransmitters by 11:55 pm	26 Exam 1 by 10 pm Initial Post Discussion 3 by 11:59 pm	27 First Reply Set Discussion 3 by 11:59 pm	28 Second Reply Set Discussion 3 by 11:59 pm

October

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	1	2 Initial Post Discussion 4 by 11:59 pm	3 First Reply Set Discussion 4 Due by 11:59 pm	4 Brain Wiki Assignment by 11:55 pm Second Reply Set Discussion 4 by 11:59 pm	5 Quiz 5 on Anatomy by 11:55 pm
7	8	9 Initial Post Discussion 5 by 11:59 pm	10 First Reply Set Discussion 5 by 11:59 pm	11 Second Reply Set Discussion 5 by 11:59 pm	12 Quiz 6 on Genes and Evolution by 11:55 pm
14	15 Quiz 7 on Development by 11:55 pm	16 Exam 2 by 10 pm	Fall Break 17-20		
21	22	23 Initial Post Discussion 6 by 11:59 pm	24 First Reply Set Discussion 6 by 11:59 pm	25 Second Reply Set Discussion 6 by 11:59 pm	26 Quiz 8 on Vision and Pain by 11:55 pm

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November

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	31	1 Sensory Project by 11:55 pm.	2 Quiz 9 on Movement by 11:55 pm
4	5	6 Initial Post Discussion 7 by 11:59 pm	7 Quiz 10 on Sleep/Consciousness by 11:55 pm First Reply Set Discussion 7 by 11:59 pm	8 Exam 3 by 10 pm Second Reply Set Discussion 7 by 11:59 pm	
11	12	13 Initial Post Discussion 8 by 11:59 pm	14 First Reply Set Discussion 8 by 11:59 pm	15 Second Reply Set Discussion 8 by 11:59 pm	Quiz 11 on Learning and Memory by 11:55 pm
18	19	20 Initial Post Discussion 9 by 11:59 pm	21 First Reply Set Discussion 9 by 11:59 pm	22 Second Reply Set Discussion 9 by 11:59 pm	Quiz 12 on Cognitive Functions by 11:55 pm
25	26 Application Paper 2 by 11:55 pm	Thanksgiving Break 27-1			

December

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2	3	4 Initial Post Discussion 1 by 11:59 pm	5 Quiz 13 on Disorders by 11:55 pm First Reply Set Discussion 1 by 11:59 pm	6 Exam 4 by 10 pm Second Reply Set Discussion 1 by 11:59 pm	
9-13 FINALS WEEK Create-A-Game Project due <u>Thursday at 5 pm</u>					