

MACALESTER COLLEGE
PSYCHOLOGY 248
BEHAVIORAL NEUROSCIENCE
COURSE SYLLABUS v2

Psychology 248-01

Fall, 2022

M-W-F, 10:50-11:50 A.M. *And*

Th 1:20-4:30 P.M.

Instructor: Eric P. Wiertelak

Olin 324, x6111

Student Hours: 12:00-1:00 W-F or by appointment.

Preceptor: Jason Tran

Office Hours: TBA

Course Description:

The goal of this course is to expand on and develop student understanding of the nervous system, the generation of behavior and its ecological, structural and functional organization. Particular emphasis is given to the analysis of sensation, motivation, emotion, learning, memory, and cognition. Participation in regularly scheduled laboratories is a component of the course. Prerequisite, Psychology 180, or Biology 265 with PSYC 100, or permission of the instructor.

Texts

Required:

Physiology of Behavior 12th edition, by Neil Carlson and Melissa Birkett.

The Man Who Mistook His Wife for a Hat, by Oliver Sacks.

Clinical Neuroanatomy Made Ridiculously Simple, by Stephen Goldberg (Lab).

Note: College textbooks can be costly; the college library has a copy of the text on reserve, and many used and rental copies are available through the college bookstore and online retailers. When choosing to use earlier editions of the text (or other books) in completing this course, students should be aware that there may be little or no coverage of newer information discussed in class or included in quizzes.

Recommended:

Principles of Neural Science (5th or 6th edition), E.R. Kandel, J.H. Schwartz, and T.M. Jessell, eds (for 5th edition). Although this text is not required, it is a highly valuable, comprehensive reference for this and any other courses in the field of neuroscience.

Stedman's Medical Dictionary or similar hardcopy or online reference. Behavioral neuroscience, like medical science, employs biomedical jargon that is not found in Webster's or any other general dictionary. A good medical dictionary, whether online version or hardcover is worth the price.

Additional readings may also be required (library reserve) in both the lecture and laboratory components of the course.

Course Format (and other) Notes:

Behavioral Neuroscience is an integrated course—as a class, it uses Monday and Wednesday primarily for lecture and group discussion, and the Thursday session devoted to lecture, group discussion and laboratory work. Friday sessions are typically devoted to the weekly quiz.

Lecture: I will follow the topical organization of the text closely, but this will not typically mirror the text; rather, it is aimed more at providing context and history for what you are reading, updating and expanding on topics as we go along. I will depend on you to let me know what parts of the text require clarification. It is an excellent text, but a dense one.

Laboratory: The laboratory component in this class is integrated with the lecture component, and conducted as a portion of the entirety of Thursday afternoon sessions. It consists of several experiences, including one practical examination and a number of graded assignments. The first Thursday session and laboratory is scheduled to begin next week! Note that some assignments may be altered or removed from the schedule in the semester due to any changing college and CDC guidelines related to COVID-19 or other health emergencies. Details of lab assignments and evaluation will be provided during the first session.

Attending all class and laboratory meetings is highly recommended, as material on quizzes is not solely from the text and may come from both lecture and laboratory components. Should an emergency require you to be absent from multiple class sessions or a lab, notify the instructor via e-mail as soon as is safely possible to do so.

Some General Notes:

1) Reading Assignments: Students are responsible for reading all assigned material prior to the class meeting for which the reading is assigned.

2) Written Assignments:

A. Legibility counts in the grading of all in-class handwritten assignments, so please write carefully.

B. All out-of-class assignments are to be computer word-processed.

C. Spelling, punctuation, and grammar count in grading all assignments.

3) The weekly quizzes will be mixed-format: combinations of essay, definitions, multiple choice, fill-ins and matching are all possible. Quizzes may take place during either the class (typical; primarily on Fridays) OR lab periods (rare!) OR as take-home. Deviations from the standard schedule (i.e., not on Friday, or take-home quizzes) will be announced in advance in class.

While make-up quizzes are not typically allowed in the course, given ongoing COVID-19 surges and how life is these days, in the case of such illness or other emergencies, make-ups will be considered on a case-by-case basis. As with class absences, should an emergency occur requiring absence from a quiz, contact the instructor's email as soon as it is safely possible to do so.

A word here about quizzes. Classes in-- and textbooks for-- neuroscience courses are incredibly dense in the amount of material included, and while our text is approachable and relatively brief for this area, that does not make it an exception. My philosophy for this course is to work across our sessions to *facilitate* your understanding of the material and subject, and check in on how that and the text-centered portion of our work is going for you frequently, through weekly quizzes. Expect that material we dwell on in our M, W, and Th sessions will have greater likelihood of being among the items included on quizzes.

4) When you need help or can't find an answer to your questions about the course, please ask your instructor or preceptor, or visit them during student hours!

Syllabus versions and revisions:

This syllabus is subject to revision by the instructor as needed in the course of the semester. The version posted on Moodle will be updated as may be required, and is the official version of the syllabus for this course.

Email Policy:

I am very happy to correspond via email during regular business hours Monday-Friday. For specific course-related questions, students should check their syllabus first to see if the answer to their question is there before emailing the instructor or preceptor. You may expect to receive a response within 1 business day during regular business hours.

Student Hours:

Come and visit, in-person (assuming we are allowed to!) or via Zoom! I am happy to meet with students for general advising, discussion of the psychology or neuroscience major and minor requirements, to clarify points/concepts from our course, or to discuss their progress in the course during these hours, or by scheduled appointment if needed. Details will be discussed in the first class session and posted in the "Announcements" in our Moodle page.

•Inclusion, Accessibility and Academic Accommodations:

I am committed to inclusive learning and ensuring access to course content for all students. I value the differences that students bring to their classes. If there are aspects of the course that prevent your effective learning or exclude you, please let me know as soon as you feel comfortable doing so. We will work together to develop a strategy to meet your needs and the course requirements.

If you have a disability, please contact me via email and meet with me in person or via Zoom early in the semester to discuss your accommodation plan. It is never too late to request accommodations-- if you have not yet obtained a plan or are unsure if you have a disability that requires accommodation, please contact Disability Services: disabilityservices@macalester.edu, or call 651-696-6974.

•**Academic Integrity Policy:** Macalester College expects academic honesty from all students and faculty. I follow the college policy as detailed on the college website.

•**A note on *Effective note taking*:** It's not just the classes I offer that call for really effective note taking, and most college students will encounter issues with this across academic disciplines and in semester-long classes at some point in the course of their undergraduate years—I know I did. My recommendation for note taking is to take advantage of how your brain organizes information! One very effective approach that does so is known as the *Cornell Note Taking* method, which some of you may have already heard of or used. I will post links to a couple of short videos on Moodle to introduce this approach (or refresh your memory of it), which may work well for you.

Health and Well-Being Statement

Here at Macalester, you are encouraged to make your well-being a priority throughout this semester and your career here. Investing time into taking care of yourself will help you engage more fully in your academic experience. Remember that beyond being a student, you are a human being carrying your own experiences, thoughts, emotions, and identities with you. It is important to acknowledge any stressors you may be facing, which can be mental, emotional, physical, cultural, financial, etc., and how they can have an impact on your academic experience. I encourage you to remember that sleeping, moving your body, and connecting with others can be strategies to help you be resilient at Macalester. If you are having difficulties maintaining your well-being, please reach out to one of the resources listed below.

On-Campus Resources

Laurie Hamre Center for Health & Wellness

Leonard Center Room 53

651-696-6275

www.macalester.edu/healthandwellness/

- Medical Services
 - Macalester has a nurse triage phone line for students. It is available 24 hours a day, seven days a week. Access Nurse can be reached by calling the Hamre Center (651-696-6275, Deaf, Hard of Hearing or Speech Limited Callers can access these numbers through MN Relay 711) and selecting option 3 on the voice mail message. If you call during office hours and reach a staff member, ask to be connected to the nurse line. Access Nurse is familiar with emergency referral resources in the area and will provide the Hamre Center with a report of the call. You can either share your name when you call or can remain anonymous. The call is always free.
 - There is no charge for an office visit to see a nurse, nurse practitioner, or doctor for most appointments at the HWC. Call 651-696-6275 to make an appointment.
- Counseling Services

Counseling appointments may be made in person by stopping at the front desk, by email, by Request a Counseling Appointment button on website, or by calling 651-696-6275.

If you would like to talk to a counselor immediately while the Hamre Center is closed, please call Press 2, our 24/7 counselor support line at **651-696-6275** and press 2 when directed.

- Stress Reduction Resources
 - Health Promotion
 - Provides a variety of resources and events, including free physical activity classes, tea, sleep masks, earplugs, and sexual health resources
 - Check the Mac Daily regularly to stay updated on events, or email healthpromotion@macalester.edu for more information.

After Hours and Off-Campus Resources

In cases of life-threatening emergency, call 911.

Macalester Security

Call 651-696-6555 in the case of any emergency to be connected with Macalester Security. They can connect you with other campus response personnel.

Deaf, Hard of Hearing or Speech Limited Callers can access these numbers through MN Relay, **711**.

- Macalester has certified student EMTs on call Friday and Saturday nights (9pm — 2 am) and Thursday and Sunday nights (8pm – 12am) when school is in session. They will respond to health-related emergencies via calls to Macalester Security or the RHD on duty.

Urgent Care Clinics and Emergency Rooms

- Urgent care facilities can be useful for cases when Health & Wellness is closed and you believe the medical condition is severe enough that it cannot wait. If the Urgent Care facility is not open, contact a hospital emergency room.

Urgent Care Clinic - Fairview Urgent Care

2155 Ford Parkway
St. Paul, MN 55116
651-696-5070

Allina Health Urgent Care – Bandana Square

1021 Bandana Blvd E
First floor
St. Paul, MN 55108
651-241-9700

- In life-threatening situations or when someone's immediate safety is a concern, Emergency Departments are best equipped to provide care. The hospitals that are closest to Macalester where we regularly refer students:

Regions Hospital

640 Jackson St, St Paul, MN 55101
651.254.3456 (Deaf, Hard of Hearing or Speech Limited Callers can access these numbers through MN Relay, 711)

United Hospital

333 Smith Ave N, St Paul, MN 55102
651.241.8000 (Deaf, Hard of Hearing or Speech Limited Callers can access these numbers through MN Relay, 711)

General Notes:

Evaluation:

1. Participation = 5% of final grade.

This portion of your grade will be based on *attendance* and *participation* in discussion, in both lecture and laboratory.

2. Laboratory = 20% of final grade.

This portion of grade will be based on the practical examination and completion of the assignments in each of the laboratory experiences. Requirements for this component of the course will be discussed in the laboratory meetings.

3. Group Project = 15% of final grade.

This portion of grade will be based on the research, development, and production of a digital project—such as a tested informational website or blog, which will serve in part as the basis for a group presentation to the class in the last weeks of the semester (topics must be pre-approved by the instructor; these will be related to the content of Chapters 16 and 17 in the text). Requirements for this component will be discussed in the class/laboratory meetings later in the semester (post add-drop).

4. Quizzes = 60% of final grade.

To provide you with flexibility, note that only the 10 highest scores out of all the weekly quizzes will be averaged and counted toward the final grade. As this grading policy may allow more than one quiz grade to be dropped, make-up testing is not typically allowed. However, as stated above, given the context of just how life is these days, in the case of such illness or other emergencies, make-ups will be considered on a case-by-case basis. As with class absences, should an emergency occur requiring absence from a quiz, contact the instructor's email as soon as it is safely possible to do so.

All grades will be calculated using the following scale:

B+ =88.2% to 91.5%	A =95.0% or higher	A- =91.6% to 94.9%
C+ =78.0% to 81.3%	B =84.8% to 88.1%	B- =81.4% to 84.7%
D+ =67.8% to 71.1%	C =74.6% to 77.9%	C- =71.2% to 74.5%
NC =60.9% and below	D =64.4% to 67.7%	D- =61% to 64.3%

Tentative Course Outline and Readings

Class Week	Topic	Chapter
8/31, 9/2, 9/7-9	Introduction to the course/ Cells of the nervous system Note: Holiday on 9/5, Lab Starts 9/8 Quiz 1 on 9/9	1-2 Sacks Intro. 1-2
9/12-16	Structures I	3*, Sacks 21
9/19-23	Psychopharmacology I	4, Sacks 16, 18
9/26-30	Research methods	5, Sacks 10, 11, 19
10/3-7	Sensing I	7*, Sacks 1, 6
10/10-14	Sensing II	7*, Sacks 8, 20
10/17-19	(TBA)	
10/20-21	Fall Break	
10/24-28	Movement Special LAB THIS WEEK	8 Sacks 3, 4, 5
10/31-11/4	Learning & Memory	13 Sacks 12, 17
11/7-11/11	Neurological Disorders	15 Sacks 2,7
11/14-16	EW at SfN; Presentation Preparation (No Classes)	
11/17	Consultations and Lab on Thursday	
11/18	Special Topics in Mental Disorders I	16*
11/21	Special Topics in Mental Disorders II	16*
11/23-25	Thanksgiving Break	
11/28-30	Special Topics in Mental Disorders III Quiz on Wednesday, 16** & Sacks 13, 14	16*, Sacks 13, 14
12/2	Special Topics in Mental Disorders IV	17*
12/5-7	Special Topics in Mental Disorders V, VI	17*, Sacks 22-24
12/9	Quiz, 17** & Sacks 22-24, class ends	
		Final Projects Due by 10:30 AM 12/14

**=As Assigned.

Tentative Lab Schedule

Class Week	Topic	Lab
8/31, 9/2, 9/7-9	Introduction to the course/ Cells of the nervous system	
	Lab Starts 9/8	Sheep Brain Dissection 1
9/12-16	Structures I	Sheep Brain Dissection 2
9/19-23	Structures II, Psychopharmacology I	Practical Exam
9/26-30	Psychopharmacology II	Video Lab
10/3-7	Research methods	Colony and Methods
10/10-14	Sensing I	Sensory Lab Session
10/17-19	Sensing II	Course session on Tuesday
10/20-21	Fall Break	
10/24-28	Movement	Special Lab Session (off campus)
10/31-11/4	Learning & Memory	Clinical Neurology Prep 1
11/7-11/11	Neurological Disorders	Clinical Neurol. Prep 2
11/14-16	EW at SfN; Presentation Preparation	
11/17-18	Consultations and Lab on Thursday	Clinical Neurol. Prep 3
	Special Topics in Mental Disorders I	
11/21	Special Topics in Mental Disorders II	
11/23-25	Thanksgiving Break	No Lab
11/28-30	Special Topics in Mental Disorders III	
	Quiz on Wednesday	
12/1		Clinical Neurol. Practice Day
12/2	Special Topics in Mental Disorders IV	
12/5-7	Special Topics in Mental Disorders V,VI	
12/8		Clinical Neurol. Test Day
12/9	Quiz, class ends	