

The Moral Brain

University of Pennsylvania, PSYC3230

Professor Sharon Thompson-Schill

Spring 2025: Tuesday 1:45 - 4:45 (Williams 315)

This seminar is designed to be a capstone experience for advanced students of psychological science and related disciplines. By this point in their education, students have been exposed to key ideas in about the biological, cognitive, and social science aspects of psychology. In this course, we will weave these ideas together around a single organizing theme: moral behavior. Students in the course will immerse themselves in the scholarly literature concerning fundamental aspects of human thought and behavior and the neural systems that support them, including decision making, emotion, mentalizing, memory and imagination, social cognition, and more. As we move through the course, we will discover how the understanding of moral thought and behavior is informed by research in all of these disparate areas. By the end of the course, students will be prepared to plan their own research projects that have the potential to reveal new insights about the most amazing organ, the moral brain.

Note. All students must have taken PSYC1210 (formerly PSYC109), PSYC1230 (formerly PSYC149), or PSYC1530 (formerly PSYC159) before enrolling in this course.

What is in this syllabus?

This syllabus has two important functions: Firstly, I have tried to set expectations and define your responsibilities in this course. My goal is for you to succeed, and I have tried to outline what you will need to do to make that happen. Much of that guidance is herein; more will be provided in person and via Canvas. Please think of this document as your primary source of information about the policies for the course. If it is in the syllabus, you are responsible for it. Since you are reading this sentence, you are already off to a good start on learning about the course! Secondly, this syllabus contains a preview of topics that we will be discussing in class. Keep in mind that the course schedule on this syllabus is provisional and subject to change. The most up-to-date version of the course schedule is on the course site on Canvas. Note. The due dates for major assignments will not change.

Contact details

How to reach me

Email: thompson@psych.upenn.edu – *only after reviewing the course email policy*

Where to find me:

Virtual: Meeting ID: 928 7322 4010 Passcode: knockknock

In person: Richards Labs, Room D405

When to find me:

Individual meetings by appointment

Drop-in “open house” with multiple students; times and locations TBA

Learning objectives

1. You will expand your knowledge of the fundamentals of social, cognitive, and affective neuroscience, including classic and cutting-edge findings about the human mind and brain and the experimental methodologies that were used to discover them.
2. You will improve your ability to critically read scientific articles, and to understand the logic behind each experiment, the details of the methodological approaches, the analysis and interpretation of data, and the limitations of any one particular study.
3. You will experience in the process of generating new scientific knowledge. You will apply your knowledge of the content and the methods that we discuss in this course to the development of your own proposal for a novel scientific investigation about any area relevant to this course. This proposal will demonstrate your understanding of both the existing research in your chosen area and the methods that can be used to address novel questions about the human brain.

Course requirements & grading

1. Weekly participation/preparation (50%)

For nearly all class sessions, we will spend our time discussing scholarly readings about that week's topic. You should plan on attending class and participating in our discussions every week. You are expected to do the readings prior to coming to class; it will be difficult to fully participate in our class discussions without having prepared. You should arrive to every session prepared to discuss all the readings, to answer questions about them—ranging from the specifics of study design to the theoretical implications of a finding—and to ask questions of your own. (Note. For many classes, there will be a set of readings that every student will read, and there will be a second set of readings from which you will be assigned only one to read. Please be sure to follow these directions closely.) Your grade will reflect both how frequently and how substantively you contributed (30% of final grade).

There are ten class sessions devoted to discussion of readings; your participation grade will be based on eight of these sessions (i.e., your lowest scores will be dropped; if you are absent that will be one of the dropped scores). In addition, there will be the option to make-up one additional absence by completing additional peer-review assignments of the research proposals.

There will be a short assignment each week about the readings. These assignments are always due the night before class (i.e., Monday at 9:00 pm). Please see the policy on deadlines below. Most weeks, the assignment will be to post a response to the readings on a Discussion thread on Canvas. Some weeks, I will have more specific prompts to which you will respond. Your grade will reflect the thoughtfulness, accuracy, and originality of your responses. The lowest two scores will be dropped, and there will be no other make-up opportunities for the remaining assignments (20% of final grade).

All of the course materials (including this syllabus) will be available on the course site on Canvas. When you navigate to the Modules tab, you will see a module for each week where I will post information about what you are expected to do before coming to class. Assignments will generally be available in the relevant module at least one week prior to class.

2. Research proposal (50%)

You will write a research proposal in the style of a proposal to the National Institutes of Health for a graduate school fellowship. There are several parts to the final proposal: (1) Specific Aims (one page); (2) Research Strategy, that explains the background and significance of the idea and outlines the research approach (6 pages); (3) Bibliography of works cited (at least 20). This may sound somewhat mysterious now, but we will be looking at examples and discussing the structure and format of the proposal as the semester goes on. The project will be broken into the following components:

- (1) Initial project brainstorming: Submit a brief summary of 3 ideas for the final project and schedule a meeting to discuss each idea. Due Feb 23, 9pm. (10%)
- (2) Rough draft of final project: Submit a draft of the Research Strategy, in preparation for a peer review session during class on April 15. Due April 8, 9pm. (30%)
- (3) Present a short talk on your research project in class; a draft of your Specific Aims will be submitted for peer-review on Canvas on Apr 20 (9pm) and your talk will be either on Apr 22 or Apr 29. (20%)
- (4) Submit the final version of the grant proposal by 9pm on May 4 (40%)

Communication and email policies

If you have a question about the course, your first resource should be the course site on Canvas. I will strive to pre-emptively address questions that will come up in relevant places on the site. Your second course of action should be to come to talk to me. I am often available in (or just outside) the classroom right before or right after class for quick questions. You might be tempted to email me, thinking that will be the fastest way to get your question answered, but this is not likely to be true. And, many issues are much better dealt with in person. If you are having any problems with the course, it is important to see me as soon as possible so we can work together to address the situation. **If you do decide to email me, please make sure to put the course number (3230) in the subject line of your message.** You can expect a reply between 24 - 72 hours after you send your message. But, if your email implies a long reply, please come to office hours.

Academic integrity and student accommodations

Intellectual development requires honesty, responsibility, and doing your own work. Taking ideas or words from others — plagiarizing — is dishonest and will result in a failing grade on any compromised assignment and possibly other disciplinary actions. Students are expected to be familiar with and comply with Penn's Code of Academic Integrity: <https://catalog.upenn.edu/pennbook/code-of-academic-integrity/>. If you have any doubts or questions about what constitutes academic misconduct, please do not hesitate to contact me. Any students with documented academic accommodations should discuss them with us by the second week of class and register with the Office of Learning Resources at the Weingarten Center (www.vpul.upenn.edu/lrc). In a crisis situation, you are encouraged to contact CaseNet for support in addition to informing me.

Classroom expectations & policies

Overview: This course is run as a discussion seminar, and its success depends upon your participation. We will be learning with and from each other around the seminar table (or its virtual equivalent) in every session. You will need to develop some comfort with the uncertainty and struggle that comes with learning in a very public environment. It is important for students in a seminar to value not just their own success but the success of others as well. You are encouraged to communicate your thoughts, but please also to allow others in your group to express their thoughts. You must always be supportive and encouraging of others, and you have the right to expect others to support and encourage you. You will be surprised how much you can learn by mutual respect of each other's ideas, even if you are knowledgeable about a subject. Try to be receptive to constructive criticism, and open about accepting mistakes.

Seminars are not for everyone, and you should not feel bad (nor will I be offended) if you decide that you would prefer a different learning environment. If you choose to take the course, I expect you to be committed to the goals, expectations, and opportunities of the seminar format.

Attendance: The discussion-based nature of this course means that everyone's presence is important for its success. Accordingly, you will need to attend class. Out of fairness to those who arrive on time, lateness will also be reflected in your participation grade. If you have to miss class for an extended period of time for any reason (usually involving CaseNet or the involvement of a dean, see above), we can discuss alternative arrangements for you. Other than these sorts of long-term absences from all of your courses, your grade in the course will be affected by repeated absences. You may miss one session for any reason—illness, religious observance, sporting events—with no penalty. A second missed session will require a make-up assignment, and additional absences will reduce your grade. **Please use the Course Absence Notice system to document any absence for any reason.**

Deadlines: In order for the course to run smoothly, you need to submit your assignments on time. Late submissions related to the research proposal are penalized 10% immediately after the deadline and another 10% for every 12 hours late. Late reading assignments (e.g., discussion comments) are penalized 25% immediately and another 25% for every hour late. In recognition of the fact that life happens, you may submit your discussion comments late (up to 12 hours late) *two times* without penalty. To ensure fairness to everyone, however, there are otherwise no extensions. Please plan ahead! If you find yourself in a tight spot and really need more time, turn in the assignment late, take the penalty, and try to avoid similar situations in the future. Rarely, a student experiences circumstances that are truly extreme. If that happens to you and you are concerned about your coursework, please (seek help and) contact me.

Note taking & technology: Laptops and tablets are welcome in class, but be mindful of their use and please only use them for note taking and for classroom activities as directed. More broadly, be considerate: it is distracting for your fellow students if you are accessing e-mail or online in class. Research has found that laptop use impaired academic performance not only for students using a laptop, but also for students within view of a laptop screen even if they themselves were not using a

laptop. Cell phones must be on silent and stowed away during class unless permission is given for their use in a specific activity. *Frequent non-course use of phones, laptops, or tablets will negatively impact your grade.*

Inclusivity & community membership: It is my intent that students from diverse backgrounds and perspectives are served well by this course and that our diversity as a class be viewed as a resource and benefit for our learning purposes. This can only happen if all members of the course community work together to create a supportive, inclusive environment that welcomes all students, regardless of their race, ethnicity, gender identity, sexuality, religious beliefs, physical or mental health status, or socioeconomic status. Diversity, inclusion, and belonging are all core values of this course. All participants in this course deserve to and should expect to be treated with respect by other members of the community. Some of the material we consider in class will be sensitive and challenging to discuss. It is imperative that there be an atmosphere of respect and safety in our classroom, and I expect that all students work towards this goal with an open mind, especially when discussing controversial subjects. Lectures, office hours, and group working time should be spaces where everyone feels welcome and safe. *If there is a situation inside the classroom or out that impacts your course performance or your work with other students, please let me know.*

Our community agreements: In order to create a welcoming environment, to cultivate a sense of belonging among students, and to facilitate students' ability to engage productively with one another across their differences, students of this course agree to:

[This will be completed in our first session.]

Course Outline (may be updated throughout the semester)

Most classes will be divided into two parts. The second part of one class will introduce a new topic that we will continue to explore in the first half of the next class. The topic that is listed next to each date in the outline below is the new topic that will be introduced (in the second half of the session) that week. For example, on Feb 11 we will discuss research about control systems in the brain, and then on Feb 18 we will discuss research about the role of those systems in moral reasoning.

Warm-up

Jan 21	Introduction to the course plan & review of neuroscience methods [no readings]
Jan 28	fMRI and QALMRI

Theme 1. Emotion and reason

Feb 4	Introduction to the moral brain; Reward and emotion systems
Feb 11	Control systems
Feb 18	Dual-process decision-making: Intuition vs reasoning
Feb 25	From thought to action: The fate of free will

Theme 2. Elaborative thought

Mar 4	Thinking about others: Mentalizing (theory of mind)
- Spring Break (no class Mar 11) -	
Mar 18	Thinking about distal events: Remembering the past and imagining the future

Theme 3. Social interactions

Mar 25	Intergroup relations: Friends and enemies
Apr 1	Empathy and compassion
Apr 8	Neuroscience and society

Let's make some science !

Apr 15	Peer review of project drafts	[no readings]
Apr 22	In-class oral presentations of projects – Part 1	[no readings]
Apr 29	In-class oral presentations of projects – Part 2	[no readings]

Other dates to know:

Research proposal due dates (all are due on a Sunday at 9:00 pm)

Feb 23	Submit project ideas and schedule a meeting (before Spring break) with Sharon
Apr 6	Submit draft of Research Strategy
Apr 20	Submit draft of Specific Aims
May 4	Submit final research proposal

Key dates on Penn Academic Calendar

Jan 28	Course selection period ends
Feb 24	Drop period ends
Mar 31	Last day to withdraw from the course