

PSYC 459 Cognitive Science – Fall 2022

Tues/Thurs 10:10 AM – 11:40 AM

Valentine 113

Welcome to Cognitive Science! I'm delighted we get to spend the semester together. I'm your instructor, Dr. Elyssa Twedt (pronounced: "ah-liss-ah tweet"). I prefer to be called Elyssa, but if you are uncomfortable using a more informal greeting, then Professor Twedt or Dr. Twedt are also acceptable.

I encourage you to talk with me regularly throughout the semester. In addition to chatting with me before or after class, you can email, call, or schedule a meeting:



etwedt@stlawu.edu

Expect responses
within 24 hours, M – F
8am - 5pm



315-229-5114



Schedule a meeting
Flint 107

COURSE DESCRIPTION

What will we learn in this course?

Analogies such as 'the mind is a blank slate' or 'the brain is like a computer' reflect different models of how humans acquire and process information. Cognitive science is the study of how the mind works from an interdisciplinary perspective. In this seminar, we will critically analyze theoretical approaches and scientific evidence related to human cognition through the lens of psychology, neuroscience, computer science, philosophy, anthropology, and linguistics. Topics include perception and action, learning, memory, language, decision-making, spatial cognition, and development, with applications in education, technology, and design.

Pre-req 1: PSYC-100 or PSYC-101 or PSYC-101WL or PSYC-101NL

Pre-req 2: PSYC-205 - Must be completed prior to taking this course.



LEARNING OBJECTIVES

1. Understand historical and contemporary models of cognition through an interdisciplinary perspective
2. Develop information and data literacy skills including how to find, summarize, evaluate, and integrate research findings
3. Foster curiosity and critical inquiry about how the mind works by examining converging and diverging evidence related to various cognitive domains.
4. Build an inclusive, respectful, and collaborative learning community with an appreciation for diverse perspectives and experiences
5. Communicate complex ideas to multiple audiences using visual, oral, and written mediums

COURSE MATERIALS AND TOOLS

Readings

There is no textbook to purchase. All readings, videos, and audio recordings will be provided for you on Canvas.

	
All course materials, assignment submissions, and grades will be available through Canvas	Perusall is a social annotation application that we will use for course readings.

PARTICIPATION AND ATTENDANCE

I do not grade attendance. However, I expect you to attend all class sessions and I will make note of who attends. During class we will engage in discussions, demonstrations, and activities that you cannot experience without attending class. You'll find that material is easier to process, and you will have a more positive experience if you regularly attend class and participate. And, class is fun and interesting! Come learn something that you can share with your friends and family.

If you need to miss class, it is courtesy to email me before class (if possible) or ASAP after class. If you miss more than one class in a row and I have not heard from you, I will send you an email to check-in. You should also check the syllabus and Canvas site for any assignment deadlines.

Being an engaged student is a vital component of this course. Make your peers glad you showed up to class! Participation comes in variety of forms including actively participating in discussions, contributing to group activities, being prepared for class, and demonstrating attentive, respectful, and active listening. You can also participate by attending office hours or speaking with me before and after class. I have also built in weekly reflections in which you can demonstrate your engagement with the course material. This is a seminar course, so it is expected that you will have completed the readings before class and will contribute to class discussions. If you struggle with participating in class, please feel free to speak with me about participation strategies and how to get the most out of each class.

ASSIGNMENTS

Most assignments will be completed online and submitted through Canvas or Perusall.

Reading Annotations

Every week you will be assigned several readings, typically scientific journal articles and book chapters. These can be challenging texts. To help you read material more deeply and critically, we will be using a program called Perusall, which is a social annotation application that is integrated with Canvas. You will read all articles through Perusall, and then use the application to make comments and ask questions directly within the text. You will also be able to read and respond to your peers' comments. My hope is this activity will make you a more engaged and critical reader, and will prepare you better for contributing to classroom discussions.

You will complete annotations for most weeks during the semester. I will count the highest 11 out of 12 scores toward your final grade. You can submit all 12, or choose to skip a week. Your grade will be dependent on the quality of your annotations, the number of annotations made, the spread of your comments (i.e., comments are throughout the whole document) and your engagement with peers. **Late annotations will not be accepted, because we will discuss the texts in the next class.** On the weeks that you are the discussion leader, you will be responsible for annotating the text early and monitoring other students' comments. More details will be given during the first week of class.

Discussion Leader

You are responsible for leading classroom discussion twice during the semester. During the second week of class, you will choose topics to present in groups of 2-3. To prepare for your discussion day, you should research information that supplements the required readings. You may use a variety of learning aids including handouts, activities, videos, and a PowerPoint presentation. The responsibility of a discussion leader is not to give a formal presentation, but rather to introduce the topic and guide discussion. As such, you should generate discussion questions and thoughtful commentary for your peers. You will be responsible for leading approximately 1 hour of class. When you are a discussion leader, you will also be responsible for monitoring Perusall annotations and adding comments early. The first student-led discussion will be Week 4 on Thursday, September 15th. Groups must meet with me the week prior to their assigned date to discuss their lesson plan. All group members are expected to equally contribute to the development and delivery of the discussion material.

Research Proposal Project

This project will be developed in stages throughout the entire semester. There are three primary goals of the project:

1. **Use an interdisciplinary approach to deepen your understanding about how the mind works.** You will choose a topic relevant to the course, and then gather and integrate

information from at least 3 perspectives covered in class: psychology; neuroscience; philosophy; anthropology; linguistics; and artificial intelligence.

2. **Develop a research proposal that demonstrates understanding of ethical, transparent, and reproducible research practices.** You will write a pre-registration of your research proposal, which outlines your research question, hypothesis, methods, and planned analyses.
3. **Communicate complex information to a non-scientific audience.** In many professional and personal contexts, you will need to summarize, integrate, and communicate complex information in a simplified, yet accurate and comprehensive manner. For Part 3 of the project, you will take what you learned in Parts 1 and 2 and convey that information to a general audience using an oral presentation.

Weekly Reflections

At the end of each week, you will write a reflection on your participation in class discussions, engagement with readings, and experience with other learning activities. For example you will be asked questions such as: “What part of the discussion was most unclear to you?”; “What do you feel was your best point during the discussion and why?; and “What did you do this week in class that helped you learn the material and why did it help?” You will be graded on the both quality of your contribution to the weekly discussion and the quality of your reflection answers.

Grades

Assignment	%
Reading Annotations	15%
Discussion Leader 1	15%
Discussion Leader 2	15%
Weekly Reflections	10%
Research Proposal Project	
Peer group meetings & drafts (P/F)	5%
Interdisciplinary literature review	20%
Pre-registration	10%
Oral Presentation	10%
Total	100%

The following table provides the cut-offs I will use to convert those percentages into the grades that will be assigned as course grades on the 4-point scale:

95 = 4.0	80 = 2.75	65 = 1.5
92 = 3.75	77 = 2.5	62 = 1.25
89 = 3.5	74 = 2.25	60 = 1
86 = 3.25	71 = 2.0	Below 60% = 0.0
83 = 3.0	68 = 1.75	

Policies

Respect for Diversity and Inclusion

It is vital that we create a classroom environment that is respectful, inclusive, and supportive of diverse opinions, values, and experiences. Our goal is to have a learning space where all students feel comfortable to contribute and collaborate with their peers. I am actively working to include more classroom resources and examples that reflect diverse voices and perspectives across multiple dimensions including race, ethnicity, gender identity, sexual orientation, religion, class, and disability. I expect everyone to be respectful and open towards each other.

Assignment Submission

Unless specified otherwise, all assignments will be submitted through Canvas or Perusall. Save your documents as lastname_assignmentname in Word. Formatting instructions will be provided for each assignment, but the default is to use a font such as Times New Roman, Calibri, or Arial, font size 12, double-spaced. A single-spaced header with your name, date, and assignment name should be included in the document.

Late assignments

When determining assignment deadlines, I consider how assignments will most effectively prepare you for class and reinforce recently learned material. I also consider my own schedule so that I have time to provide quality feedback in a timely manner. Therefore, just as I aim to return graded assignments quickly, I expect you to adhere to deadlines outlined in the course schedule. However, we all lead busy lives and often have competing demands for our time. You may find yourself overwhelmed one week when all your classes have the same deadlines, or you may fall behind on work after an illness. To accommodate for these circumstances, I have built in some flexibility for assignment submissions.

For each assignment, there is a 24-hour grace period in which you can submit your assignment late, without penalty. This policy does not apply to reading annotations, which cannot be completed after the due date because we will discuss the readings during the next class.

However, after the 24-hour extension, the following late assignment policy will be used: 5% will be deducted from your assignment grade for every additional 24-hour period after the extension period. For example, 5% deduction if submitted within 24-hours after extension period, 10% deduction for next 24-hours, etc. After 1 week, late submissions will no longer be accepted to allow for timely feedback.

In extenuating circumstances, the late policy may be modified; these situations will be evaluated on a case-by-case basis.

Personal Electronics

You may bring a laptop to class because it can be helpful to view your Perusall annotations during our class discussions. I recognize that computers offer endless distractions, but I trust

that you'll use them responsibly in class. Please do what you can to limit distractions – e.g., close other browser tabs, keep chat apps closed, and silence your cell phone. I will build in breaks throughout class so you can check email and texts.

Office Hours

I set aside three hours per week for office hours. You can use Canvas to sign-up for a meeting time during office hours. During office hours we can review class material, review project feedback, strengthen participation skills, or work on whatever aspects of the course (or college) you find challenging. Sometimes, students are hesitant to visit me during office hours until late in the semester. However, I encourage you to visit with me early to introduce yourself and discuss how we can work together to have a successful semester. Therefore, if you visit my office hours or make an appointment to meet with me during the first 4 weeks of the semester (8/24 – 9/16), you will earn one bonus point on one of your Weekly Reflections.

Contacting Me

I truly love talking to my students! I encourage you to ask me questions and to share interesting resources related to course content. There are several ways for you to do this including attending office hours (see above), scheduling an appointment, and emailing me. Please check the syllabus before emailing me about scheduling or course policies. I ask that you also check your email regularly, as I sometimes share class announcements, follow-ups to lecture material, and interesting stuff I find related to course content. I will respond to your emails within 24 hours if received Mon – Fri, 8 AM – 5 PM EST. For emails received over the weekend, I will respond the next Monday morning.

Academic Integrity

All assignments submitted must adhere to the university honor code as stated in the [Student Handbook](#). All work must be completed independently, except when specified as group work. All written work must be in your own words and properly cited following APA 7th edition guidelines. Some examples of academic dishonesty are: using another author's or student's work as your own, failing to properly cite a source when quoting or summarizing, and handing in work previously used in another course. If you have any questions about the honor code or plagiarism, please ask me.

Student Accessibility Services

Your experience in this class is important to me. It is the policy and practice of St. Lawrence University to create inclusive and accessible learning environments consistent with federal and state law. If you have already established accommodations with the Student Accessibility Services Office, please meet with them to activate your accommodations so we can discuss how they will be implemented in this course.

If you have not yet established services through the Student Accessibility Services Office but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision,

hearing, physical or health impacts), please contact the Student Accessibility Services Office directly to set up a meeting to discuss establishing with their office. The Student Accessibility Services Office will work with you on the interactive process that establishes reasonable accommodations.

Color Vision Deficiency:

If you are color vision deficient, the Student Accessibility Services office has on loan glasses for students who are color vision deficient. Please contact the office to make an appointment.

For more specific information about setting up an appointment with Student Accessibility Services please see the options listed below:

Telephone: **315.229.5537**

Email: studentaccessibility@stlawu.edu

For further information about Student Accessibility Services, you can check the website at <https://www.stlawu.edu/offices/student-accessibility-service>

SCHEDULE

Please note that the schedule is subject to change with notice. Any changes will be made in consultation with you, the students. These changes will be for your benefit to ensure that you have adequate preparation and enough time to complete assignments.

Note that the schedule below lists weekly course topics and deadlines for major assignments. Readings will be listed in the weekly Canvas Modules and accessed through Perusall. Please check Canvas Modules every week so you know exactly what is expected and can plan your schedule accordingly.

Reading annotations are due every Wednesday by 5 PM. This gives discussion leaders a chance to review comments before the next class.

Weekly reflections are due every Sunday by 11:59 PM.

Date	Topic	Assignment Due
Week 1 8/25	Introduction	
Week 2 8/30 & 9/1	Foundations of Cognitive Science	Discussion leader sign-ups
Week 3 9/6 & 9/8	Contemporary Approaches to Cognitive Science	RP: Topic Ideas (Thurs)
Week 4 9/13 & 9/15	Perception	First discussion leader
Week 5 9/20 & 9/22	Action	RP: Final Topic and References (Thurs)
Week 6 9/27 & 9/29	Learning & Memory	
Week 7 10/4 & 10/6	Attention	RP: Article Summary (Thurs)
Week 8 10/11	Research Proposal Meetings No Class Thurs: Mid-semester Break	
Week 9 10/18 & 10/20	Judgment & Decision-making	RP: Pre-registration Draft (Thurs)
Week 10 10/25 & 10/27	Extended Mind	
Week 11 11/1 & 11/3	Human-computer interaction	RP: Pre-registration Final (Thurs)
Week 12 11/8 & 11/10	Spatial Cognition	
Week 13 11/15 & 11/17	Development	RP: Literature Review Draft (Thurs)

11/22 & 11/24	NO CLASS – THANKSGIVING BREAK	
Week 14 11/29 & 12/1	Language & Gesture	RP: Oral Presentation Draft (Thurs)
Week 15 12/6 & 12/8	Oral Presentations	
Week 16 12/11 – 12/16	FINALS WEEK – NO CLASS	RP: Literature Review Final (Wed 12/14 by 11:59PM)