

# PSY4009-1 SP23 - Psychology Of Cognition And Learning

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## ***To Teach ~ To Shape ~ To Send***

*Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.*

<b>Instructor:</b>	Max E. Butterfield, Ph.D.
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<b>Office Phone:</b>	
<b>Office:</b>	Culbertson Hall 105
<b>Office hours:</b>	<p>Appointments available T/TH 2:00 PM - 5:00 PM</p> <p><a href="https://calendar.google.com/calendar/u/0/appointments/schedules/AcZssZ2L3piv_CFhFFnM_UD9-4YgB3CB9gxybZtWVYHoa_dlmLrCmlauVm7sTWigXmke8-XvRPvbBOew">Click here to book an appointment! (https://calendar.google.com/calendar/u/0/appointments/schedules/AcZssZ2L3piv_CFhFFnM_UD9-4YgB3CB9gxybZtWVYHoa_dlmLrCmlauVm7sTWigXmke8-XvRPvbBOew)</a></p>
<b>Teaching Assistant:</b>	Sophie Murray
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<b>Class Modality and Location:</b>	Modality: Traditional Location: Taylor Hall 105
<b>Class Meetings:</b>	MWF 12:15 - 1:20 PM
<b>Units:</b>	4
<b>Final Exam:</b>	Capstone 3 (see the Week 15 activity for more information)
<b>Text:</b>	<i>None, all required materials will be provided free of charge.</i>
<b>Course Reference List:</b>	<i>Thinking, Fast and Slow</i> by Daniel Kahneman <i>Learning and Memory: From Brain to Behavior</i> (2 <sup>nd</sup> ed.) by Gluck, Mercado, and Myers

## COURSE DESCRIPTION

In this course, we'll explore the ways in which our lives are shaped by two of the most powerful influences on human behavior: The architecture of our brains, and the scope of our past experiences. We will cover a variety of important topics such as classical and operant conditioning, memory, attention, language, judgment, and decision making. We will not approach this content as merely a collection of facts, figures, and theory to be memorized. Instead, this course will provide a rich framework for understanding why people behave the way that they do, and it will help you apply these lessons to improve your daily life and your future vocation. Classroom activities will focus on lecture, discussion, and hands-on experiences, and you will be evaluated based on your engagement with the material, your knowledge of it, and your ability to apply it to real-world problems and situations. When all is said and done, you will understand the ways in which the fields of cognition and learning provide useful, engaging, and widely applicable lessons for individuals with a wide variety of interests and goals.

From the catalog: "A study of the major theories and empirical findings in the fields of cognition and

learning, as well as practical applications to human behavior. Laboratory activities may be included. Prerequisite(s): PSY 1003 and PSY 3090 or consent of instructor.”

## COURSE OUTLINE

Week	Topic	Assignments/Activities	Supplemental Reading
01	Habituation and Sensitization	01a Intro to Learning 01b Habituation and Eating 01c Foundational Concept Analysis	FBB, Chapter 3
02	Classical Conditioning	02a Classical Conditioning 02b Addiction 02c Beyond Classical Conditioning	FBB, Chapter 4
03	Operant Conditioning	03a Parenting Practices 03b Applied Operant Conditioning 03c Applied Operant Conditioning 2	FBB, Chapter 5
04	Generalization and Discrimination	04a Applied Generalization and Discrimination 04b Advanced Operant Conditioning 04c Advanced Operant Conditioning 2	FBB, Chapter 6
05	Learning Capstone	05a Learning Capstone, Part 1 05b Learning Capstone, Part 2 05c Learning Capstone, Part 3	None
06	The Brain	06a Simplifying Brain Science	FBB, Chapter 2

		06b Questioning Brain Science?	
		06c Applied Brain Anatomy	
		07a Stolen Attention	
07	Attention	07b The Invisible Gorilla	None
		07c Testing Inattentional Blindness	
		08a Eternal Sunshine of the Spotless Rat	
08	Memory	08b The Accuracy of Memory	FBB, Chapters 7 - 9
		08c Non-Human Cognitive Skills	
		9a Bilingual Education	
09	Language	9b The Creation of Language	None
		9c Non-Human Language	
		10a Cognition Capstone, Part 1	
10	Cognition Capstone	10b Cognition Capstone, Part 2	None
		10c Cognition Capstone, Part 3	
		11a Two Systems Theory	
11	Systems of Thought	11b The Self-Control Controversy	TFS, p. 19 – 105
		11c The Curious Case of Priming	
		12a Cause and Effect	
12	Heuristics and Biases	12b Heuristic Thinking	TFS, p. 109 – 195
		12c Parenting and the Illusion of Control	
		13a JDM Illusions	
13	Judgment and Decision Making	13b Decision Making Formulas	TFS, p. 199 – 265
		13c Planning Your Life	

		14a Choices	
14	Choices	14b Mental Accounting	TFS, p. 269 – 407
		14c Framing	
15	Finals Week	15 Final Exam	None

## COURSE LEARNING OUTCOMES

Students will be able to...

- Explain the ways in which learning involves habituation, sensitization, discrimination, generalization, and conditioning.
- Design classical and operant conditioning paradigms for use in everyday life
- Explain the basic physiological bases of neural activity and identify basic brain architecture.
- Understand and explain the fundamental cognitive processes involved in attention, memory, and sensation and perception.
- Recognize and defend against common errors in judgment and decision making that lead to a variety of avoidable problems, such as poor financial decisions, interpersonal bias, and deadly car crashes.

## COURSE CREDIT HOUR INFORMATION

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a four unit class delivered over 15 weeks. Specific details about how the class meets the credit hour requirement can be provided by the university or our accrediting bodies.

## STATE AUTHORIZATION

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene

University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on State Authorization to view which states allow online (distance education) outside of California.

## **USE OF TECHNOLOGY**

In order to be successful in the online environment, you'll need to meet the minimum technology and system requirements; please refer to the Technology and System Requirements information. Additionally, students are required to have headphone speakers compatible with their computer available to use. If a student is in need of technological resources please contact student-tech-request@pointloma.edu. Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

## **PLNU ATTENDANCE AND PARTICIPATION POLICY**

Regular and punctual attendance at all synchronous class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of synchronous class sessions (virtual or face-to-face), the faculty member may issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. For example, when synchronous absences reach 20 percent, the final letter grade will be adjusted down one full letter grade to account for lost learning due to diminished participation and engagement (e.g., from an A to B).

### **Asynchronous Attendance/Participation Definition**

In some courses, a portion of the credit hour content will be delivered asynchronously and attendance will be determined by submitting the assignments by the posted due dates. See Academic Policies in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted. A day of attendance in asynchronous content is determined as contributing a substantive note, assignment, discussion, or submission by the posted due date. Failure to meet these standards will result in an absence for that day.

## **LATE ASSIGNMENTS**

Please pay close attention to the **due date** and the **available until** date. They are different. All assignments are due on the due date, but they are still eligible for full credit until the available until date. After assignments expire, they are not eligible for credit without an official excused absence. Official excused absences are given by the Provost's Office. Please be aware that the official PLNU policy is that illnesses are not excused absences, even with a note from a health care provider.

## INCOMPLETES

Incompletes for the course will only be assigned in extremely unusual circumstances.

## FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination **on its scheduled day**. The final examination schedule is posted on the [Class Schedules \(http://www.pointloma.edu/experience/academics/class-schedules\)](http://www.pointloma.edu/experience/academics/class-schedules). No requests for early examinations or alternative days will be approved.

## COURSE OUTLINE

See Course Summary (below) for the schedule of activities. You will work closely with me to track your hours and develop meaningful projects according to your own timeline.

## PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

## PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies \(http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278\)](http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278) for definitions of kinds of academic dishonesty and for further policy information.

## PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or

619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester. PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course and/or if they do not wish to utilize some or all of the elements of their AP in that course. Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC.

## CHANGE IN SYLLABUS OR SCHEDULE

It is possible that I will make modifications to the syllabus or schedule during the semester. If this occurs, I will make an announcement by email, in class, or both.

## ASSESSMENT AND GRADING

Your final letter grade will be determined by a variety of assessments of your engagement, knowledge, and ability to apply what you have learned. Your grade will be determined by the overall percentage of points at the end of the semester. In order to ensure fair grading, I will calculate your grade using both total points and z scores, which measure your performance compared with the performance of the class (i.e., grading on a 'curve'). The score that will ultimately be used for you is the one that results in the **higher** of the scores. In order to pass this course, however, you must earn at least 50 % of all possible points.

Grade	Minimum Points Needed	Percentage Needed	z Score Needed	Cumulative Percent	Percent Who Receive	Category Cumulative Percent
A	465	93 %	1.33	9.2 %	9.2%	
A-	450	90 %	1.00	15.9 %	6.7%	15.9%
B+	440	88 %	.67	25.1 %	9.3%	

<b>B</b>	420	84 %	.33	37.1 %	11.9%	
<b>B-</b>	400	80 %	.00	50 %	12.9%	34.1%
<b>C+</b>	385	77 %	-.33	62.9 %	12.9%	
<b>C</b>	350	70 %	-1.00	84.1 %	21.2%	
<b>C-</b>	325	65 %	-1.33	90.8 %	6.7%	40.8%
<b>D+</b>	310	62 %	-1.67	95.3 %	4.4%	
<b>D</b>	275	55 %	-2.00	97.7 %	2.5%	
<b>D-</b>	250	50 %	-2.33	99 %	1.3%	
<b>F</b>	0	0	< -2.33	100 %	1.0%	9.2%

## Course Summary:

Date	Details	Due
Sun Jan 15, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857525">Week 01: Habituation</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857525">https://canvas.pointloma.edu/courses/66018/assignments/857525</a> )	due by 11:59pm
Sun Jan 22, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857526">Week 02: Classical Conditioning</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857526">https://canvas.pointloma.edu/courses/66018/assignments/857526</a> )	due by 11:59pm
Sun Jan 29, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857527">Week 03: Operant Conditioning</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857527">https://canvas.pointloma.edu/courses/66018/assignments/857527</a> )	due by 11:59pm
Sun Feb 5, 2023	 <a href="#">Week 04: Generalization and Discrimination</a>	due by 11:59pm

Date	Details	Due
	<a href="https://canvas.pointloma.edu/courses/66018/assignments/857528">https://canvas.pointloma.edu/courses/66018/assignments/857528</a>	
Sun Feb 12, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857529">Week 05: Learning Capstone</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857529">https://canvas.pointloma.edu/courses/66018/assignments/857529</a> )	due by 11:59pm
Sun Feb 19, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857530">Week 06: The Brain</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857530">https://canvas.pointloma.edu/courses/66018/assignments/857530</a> )	due by 11:59pm
Sun Feb 26, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857531">Week 07: Attention</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857531">https://canvas.pointloma.edu/courses/66018/assignments/857531</a> )	due by 11:59pm
Sun Mar 5, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857532">Week 08: Memory</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857532">https://canvas.pointloma.edu/courses/66018/assignments/857532</a> )	due by 11:59pm
Sun Mar 19, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857533">Week 09: Language</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857533">https://canvas.pointloma.edu/courses/66018/assignments/857533</a> )	due by 11:59pm
Sun Mar 26, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857534">Week 10: Cognition Capstone</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857534">https://canvas.pointloma.edu/courses/66018/assignments/857534</a> )	due by 11:59pm
Sun Apr 2, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857535">Week 11: Systems of Thought</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857535">https://canvas.pointloma.edu/courses/66018/assignments/857535</a> )	due by 11:59pm
Sun Apr 9, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857536">Week 12: Heuristics and Biases</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857536">https://canvas.pointloma.edu/courses/66018/assignments/857536</a> )	due by 11:59pm
Sun Apr 16, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857537">Week 13: Judgment and Decision Making</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857537">https://canvas.pointloma.edu/courses/66018/assignments/857537</a> )	due by 11:59pm

Date	Details	Due
Sun Apr 23, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857538">Week 14: Choices</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857538">https://canvas.pointloma.edu/courses/66018/assignments/857538</a> )	due by 11:59pm
Sun Apr 30, 2023	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857539">Week 15: Social Cognition Capstone</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857539">https://canvas.pointloma.edu/courses/66018/assignments/857539</a> )	due by 11:59pm
	 <a href="https://canvas.pointloma.edu/courses/66018/assignments/857524">Roll Call Attendance</a> ( <a href="https://canvas.pointloma.edu/courses/66018/assignments/857524">https://canvas.pointloma.edu/courses/66018/assignments/857524</a> )	