

PSY4009-1 SP21 - 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.

Instructor:	Max E. Butterfield, Ph.D.
Email:	mbutter@pointloma.edu
Office Phone:	(619) 849-2405 (email preferred)
Office:	Culbertson Hall 105 (working remotely when possible)
Office hours:	Appointments available T/TH 2:00 PM - 5:00 PM Click here to book an appointment! (https://calendar.google.com/calendar/u/0/sefsched?sstoken=UU1NQ2x2ak51ZDc4fGRIZmF1bHR8ZDJmMjEzZGVjY2RiTlMTY2NTczYjImZGVjMTNIOTI)
Teaching Assistant:	Alex Liu
Email:	alexliu1127@pointloma.edu
Drop-In Remote Office Hours:	M/W: 11:30 AM - 1:00 PM

Class Modality and Location:	Hyflex: You may have the option to participate in this course face-to-face, remotely, or a combination of the two. All lectures are offered as on-demand videos, and open discussions will be held on Wednesdays from 12:30 PM - 1:30 PM in Starkey B 100 or on Zoom. Attendance is not required, and live discussions cannot be offered until the university opens for face-to-face instruction. Please be sure to see Workday for the most recent physical meeting spaces assigned to this course. Please also refer to PLNU, local, state, and national health guidelines when choosing your modality. My personal recommendation is to attend class remotely. The course is designed to facilitate an equivalent learning experience across modalities. I am committed to protecting the vulnerable, even though it involves personal sacrifice. I hope we share that commitment.
Class Meetings:	Live Discussion: W: 12:30 PM - 1:30 PM Lectures: On Demand ***Mental health days (no live discussion): W: 3/31, W: 5/5***
Units:	4
Final Exam:	Your final exam is due on June 11, 2020.
Text:	<i>None, all required materials will be provided free of charge.</i>
Completely Optional Texts: (No reading required)	<i>Thinking, Fast and Slow by Daniel Kahneman</i> <i>Learning and Memory: From Brain to Behavior (2nd ed.)</i> 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 they do.

<https://canvas.pointloma.edu/courses/54706>

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 Readi
01	Habituation and Sensitization	01a Intro to Learning	
		01b Habituation and Eating	FBB, Chapter 3
		01c Foundational Concept Analysis	
02	Classical Conditioning	02a Classical Conditioning	
		02b Addiction	FBB, Chapter 4
		02c Beyond Classical Conditioning	
03	Operant Conditioning	03a Parenting Practices	
		03b Applied Operant Conditioning	FBB, Chapter 5
		03c Applied Operant Conditioning 2	
04	Generalization and Discrimination	04a Applied Generalization and Discrimination	FBB, Chapter 6
		04b Advanced Operant Conditioning	
		04c Advanced Operant Conditioning 2	
05	Learning Capstone	05a Learning Capstone, Part 1	
		05b Learning Capstone, Part 2	None
		05c Learning Capstone. Part 3	

		06a Simplifying Brain Science	
06	The Brain	06b Questioning Brain Science?	FBB, Chapter 2
		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	
		15a JDM Capstone, Part 1	
		15b JDM Capstone, Part 2	
15	JDM Capstone	15c JDM Capstone, Part 3	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 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. 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.

Asynchronous Attendance/Participation Definition

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. Instructors will determine how many asynchronous attendance days are required each week.

INCOMPLETES AND LATE ASSIGNMENTS

Incompletes will only be assigned in extremely unusual circumstances. All assignments are to be submitted by the **due date** listed on Canvas. Work turned in after the **due date** will still be considered **late**, but it will be accepted until the **available until date**. Late work turned in before the available until date is still eligible for full credit, but the official PLNU policy is that **all late assignments are counted as absences**. If a student is absent for more than 10 percent of 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. Please be aware that the official PLNU policy is that illnesses are not excused absences, even with a note from a health care provider.

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>). 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>) for definitions of kinds of academic dishonesty and for further policy information.

PLNU ACADEMIC ACCOMMODATIONS POLICY

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center. (DRC@pointloma.edu or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the

Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.
<https://canvas.pointloma.edu/courses/54706>

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

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	420	84 %	.33	37.1 %	11.9%	
B-	400	80 %	.00	50 %	12.9%	34.1%
C+	385	77 %	-.33	62.9 %	12.9%	
C	350	70 %	-1.00	84.1 %	21.2%	

C-	325	65 %	-1.33	90.8 %	6.7%	40.8%
D+	310	62 %	-1.67	95.3 %	4.4%	
D	275	55 %	-2.00	97.7 %	2.5%	
D-	250	50 %	-2.33	99 %	1.3%	
F	0	0	< -2.33	100 %	1.0%	9.2%

Course Summary:

Date	Details	Due
Mon Mar 1, 2021	 01a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620510)	due by 11:59pm
Wed Mar 3, 2021	 01b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620511)	due by 11:59pm
Fri Mar 5, 2021	 01c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620512)	due by 11:59pm
Mon Mar 8, 2021	 02a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620513)	due by 11:59pm
Wed Mar 10, 2021	 02b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620514)	due by 11:59pm
Fri Mar 12, 2021	 02c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620515)	due by 11:59pm
Mon Mar 15, 2021	 03a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620516)	due by 11:59pm
Wed Mar 17, 2021	 03b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620517)	due by 11:59pm
Fri Mar 19, 2021	 03c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620518)	due by 11:59pm

Date	Details	Due
Mon Mar 22, 2021	 04a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620519)	due by 11:59pm
Wed Mar 24, 2021	 04b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620520)	due by 11:59pm
Fri Mar 26, 2021	 04c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620521)	due by 11:59pm
Mon Mar 29, 2021	 05a Activity: Learning Capstone, Part 1 (https://canvas.pointloma.edu/courses/54706/assignments/620522)	due by 11:59pm
Thu Apr 1, 2021	 05b Activity: Learning Capstone, Part 2 (https://canvas.pointloma.edu/courses/54706/assignments/620523)	due by 11:59pm
Sun Apr 4, 2021	 05c Activity: Learning Capstone, Part 3 (https://canvas.pointloma.edu/courses/54706/assignments/620524)	due by 11:59pm
Mon Apr 5, 2021	 06a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620525)	due by 11:59pm
Wed Apr 7, 2021	 06b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620526)	due by 11:59pm
Fri Apr 9, 2021	 06c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620527)	due by 11:59pm
Mon Apr 12, 2021	 07a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620528)	due by 11:59pm
Wed Apr 14, 2021	 07b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620529)	due by 11:59pm
Fri Apr 16, 2021	 07c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620530)	due by 11:59pm
Mon Apr 19, 2021	 08a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620531)	due by 11:59pm
Wed Apr 21, 2021	 08b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620532)	due by 11:59pm

Date	Details	Due
Fri Apr 23, 2021	 08c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620533)	due by 11:59pm
Mon Apr 26, 2021	 09a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620534)	due by 11:59pm
Wed Apr 28, 2021	 09b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620535)	due by 11:59pm
Fri Apr 30, 2021	 09c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620536)	due by 11:59pm
Mon May 3, 2021	 10a Activity: Cognition Capstone, Part 1 (https://canvas.pointloma.edu/courses/54706/assignments/620537)	due by 11:59pm
Thu May 6, 2021	 10b Activity: Cognition Capstone, Part 2 (https://canvas.pointloma.edu/courses/54706/assignments/620538)	due by 11:59pm
Sun May 9, 2021	 10c Activity: Cognition Capstone, Part 3 (https://canvas.pointloma.edu/courses/54706/assignments/620539)	due by 11:59pm
Mon May 10, 2021	 11a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620540)	due by 11:59pm
Wed May 12, 2021	 11b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620541)	due by 11:59pm
Fri May 14, 2021	 11c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620542)	due by 11:59pm
Mon May 17, 2021	 12a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620543)	due by 11:59pm
Wed May 19, 2021	 12b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620544)	due by 11:59pm
Fri May 21, 2021	 12c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620545)	due by 11:59pm
Mon May 24, 2021	 13a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620546)	due by 11:59pm

Date	Details	Due
Wed May 26, 2021	 13b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620547)	due by 11:59pm
Fri May 28, 2021	 13c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620548)	due by 11:59pm
Mon May 31, 2021	 14a Activity (https://canvas.pointloma.edu/courses/54706/assignments/620549)	due by 11:59pm
Wed Jun 2, 2021	 14b Activity (https://canvas.pointloma.edu/courses/54706/assignments/620550)	due by 11:59pm
Fri Jun 4, 2021	 14c Activity (https://canvas.pointloma.edu/courses/54706/assignments/620551)	due by 11:59pm
Mon Jun 7, 2021	 15a Activity: JDM Capstone, Part 1 (https://canvas.pointloma.edu/courses/54706/assignments/620552)	due by 11:59pm
Wed Jun 9, 2021	 15b Activity: JDM Capstone, Part 2 (https://canvas.pointloma.edu/courses/54706/assignments/620553)	due by 11:59pm
Fri Jun 11, 2021	 15c Activity: JDM Capstone, Part 3 (https://canvas.pointloma.edu/courses/54706/assignments/620554)	due by 11:59pm