

# DEPARTMENT OF PSYCHOLOGY Faculty of Arts

PSYC 365 Cognitive Psychology Winter 2023

Instructor: Emiko Muraki Lecture Location: ST 135

Phone: N/A Lecture Days/Time: MWF 13:00 - 13:50

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Office Hours: By Appointment

## **Course Description**

Cognitive psychology is the study of the mind and how it operates. This course introduces the theories and experimental methods used to study human cognition. The topics covered in this course include cognitive neuroscience, perception, attention, memory, concepts, language, imagery, problem-solving, and decision-making. We will learn how these different cognitive processes manifest in our everyday mental lives.

## **Course Learning Outcomes**

The Department of Psychology is committed to student knowledge and skill development. The table below lists the key learning outcomes for this course, the program-learning outcomes they facilitate (see <a href="https://live-arts.ucalgary.ca/psychology/about#program-learning-outcomes">https://live-arts.ucalgary.ca/psychology/about#program-learning-outcomes</a>), and the expected level of achievement.

Course Learning Outcomes	<b>Assessment Methods</b>	PLO(s)	Level(s)
Describe and discuss basic terminology, concepts, and theories of	Exams and	1,5	С
cognitive psychology	assignments		
Identify, evaluate, and apply relevant theories or concepts of	Exams and	1,2,4,5,7	С
cognitive psychology to explain mental or behavioral phenomena	assignments		
or processes related to human cognition – from empirical findings			
to everyday behavior, to issues of social and societal importance			
Explain various research methods use to study cognition and	Exams and	1,2,4,5,7	С
distinguish between different methodologies to select the	assignments		
appropriate or optimal method for research questions in			
cognition			
Interpret statistical results and figures and effectively summarize	Exams and	4,5,7	С
research findings	assignments		
Evaluate and communicate research findings and ideas,	Assignments	2,4,5,7	С
demonstrating the theoretical and applied significance of such			
findings to our understanding of cognition			

Notes. PLOs = Program-Learning Outcomes: 1 = demonstrate knowledge of psychological sciences, 2 = think critically and solve problems, 3 = conduct research and analyze data, 4 = communicate effectively, 5 = demonstrate information literacy, 6 = understand and implement ethical principles in a diverse world, 7 = apply psychological knowledge and skills, 8 = Demonstrate multicultural competence and awareness of issues related to equity, diversity,\* and inclusion. Level of PLO achievement facilitated by this course: I = introductory, C = competency, A = advanced.

## **Acknowledgments and Respect for Diversity**

Our classrooms view diversity of identity as a strength and resource. Your experiences and different perspectives are encouraged and add to a rich learning environment that fosters critical thought through respectful discussion and inclusion. The Department of Psychology would also like to acknowledge the traditional territories of the people of the Treaty 7 region in southern Alberta. The City of Calgary is also home to Métis Nation of Alberta, Region III.

#### **Course Format**

This is an in-person class held on campus.

# **Prerequisites**

Psyc 200 and 201 – Principles of Psychology I and II.

#### **Required Text**

Goldstein, E.B. (2019). *Cognitive psychology: Connecting mind, research, and everyday experience* (5th ed.). Boston, MA: Cengage.

**Note:** When purchasing this book from the university bookstore, please choose to purchase the textbook bundled with a *MindTap Access Code*. In this course, we will be completing assignments that draw on the material from the class. If you choose to purchase MindTap, then you will be asked to complete assignments using their CogLab experiments, which will give you an appreciation for some of the classic experiments in Cognitive Psychology. If you go this route, please note that each Access Code will only work once - so if you choose to buy the textbook from another retailer, please ensure that you are getting the bundle with MindTap. Or, if you choose to purchase a previous edition or used copy, and would like CogLab access, you would need to purchase a CogLab Access Code directly from the publisher (it costs about \$50 on its own, but does not include the rest of the MindTap content). The link is here: https://www.cengage.ca/c/coglab-5-44-1-term-6-months-instant-access-44-5th-edition-5e-francis-neath/9781285461083/.

If you would prefer not to purchase MindTap (or CogLab), you have the option to complete an alternative assignment on the topic (for each of the four assignments). See below for details.

#### **Assessment Methods**

Course Component	Weighting	Due Date
Midterm 1	20%	February 6
Covers chapters 1 – 4 and lectures from Jan 11 – Feb 3		
Midterm 2	25%	March 8
Covers chapters 5 – 8 and lectures from Feb 8 – Mar 6		
Final Exam	30%	Scheduled by registrar
Covers chapters 9 – 13 and lectures from Mar 10 – April 12		
CogLab or Alternative Assignments		
Assignment 1 – Perception	5%	January 27
Assignment 2 – Long-Term Memory	5%	February 27
Assignment 3 – Language	5%	March 20
Infographic Group Project	10%	April 5

#### **Midterm and Final Exams**

Midterm 1 (worth 20% of the final grade; February 6), Midterm 2 (worth 25% of the final grade; March 8) and final exam (worth 30% of the final grade; date TBD) will be based on lecture material, textbook and assignments. Midterms will take the entire class time, and no lectures will be given. All exams will consist of multiple-choice questions. Exams will be non-cumulative (i.e., material covered on midterms will not be explicitly covered in the final exam) but knowledge from earlier sections of the course may be necessary to answer certain questions on later exams. Refer to the Absence From an Exam section in case of absence from midterms or final exam.

Exams in this course are closed book. The use of resources, including class notes, the textbook, online resources, and calculators is prohibited during the exams in this course. Students may not communicate with others about course material or the exam either in person or electronically during exams.

## **CogLab Assignments**

CogLab is an online learning platform. It can be purchased as a standalone product (if you purchase used/older versions of the textbook), or it comes included in MindTap (if you purchase a brand new textbook). Coglabs allow students to experience important classic and current experiments in cognitive psychology. They help demonstrate some of the concepts via experiments that we will discuss in the course. There are two parts to each assignment. First, students will complete a specific experiment (or two) on CogLab for each assignment. The experiments are all fairly brief (10-25 minutes). Second, students will complete three to five short answer questions. The questions for the assignment typically include one or two factual questions about the material, a question that requires interpretation of your data relative to predictions, and one or two questions that require application of the concepts outside of the typical cognitive psychology lab or classroom and into everyday life. You will be graded primarily on the content of your responses (e.g., were the interpretations of your data correct), as well as for your communication – including the correct use of relevant terminology.

Alternative Assignments: Students will be asked to read an original research article, and answer questions based on their reading. The topics of these articles will be the same as those for the CogLab assignments, and the length and depth of questions will be as similar as possible.

Each assignment is worth 5% of your final grade. All assignments must be submitted on D2L in the appropriate Dropbox folder by 11:59pm (MT) on the due date indicated on the Tentative Schedule.

Each student will receive a five-day Late Bank. These days can be used to submit CogLab or Alternative Assignments late, at your discretion and with no questions asked. For instance, you might use two Late Bank days for Assignment 1 and the other three Late Bank days for Assignment 4. The Late Bank is designed to provide you some flexibility during this course to manage personal situations, illness, or times when you have a busy workload during the term. You do not need to let the instructor know ahead of time that you are using days in your Late Bank for an assignment - rather, simply make a note in Dropbox when you submit the task that you are using X number of Late Bank days when you submit.

Once you have used up your Late Bank days, a penalty of 10% per day will apply for unexcused late submissions of assignments, up to a maximum of 7 days late. After this time, the assignment will receive a grade of 0.

#### **Group Infographic Assignment**

For this assignment, students will work in groups of three. Each group will pick a cognitive process (e.g., working memory, visual imagery) and create an infographic that conveys 1) what the cognitive process is, 2) how the process operates based on the available research evidence, and 3) why it is important to everyday life. Infographics should communicate these three pieces of information in a clear and effective manner. The ability to communicate scientific findings to the general public is important for scientists. Therefore, the purpose of this assignment is to learn how to translate complex scientific research in an accessible format for a non-expert audience. Detailed information about the assignment and evaluation criteria will be available on D2L after week 2.

This group assignment is worth 10% of your final grade and are due 11:59pm MT on April 5th. The assignment will be submitted via D2L in the appropriate Dropbox folder. Without instructor approval, late assignments will be penalized 10% per day including weekends, up to a maximum of 7 days late. After this time, the assignment will receive a grade of 0.

# **University of Calgary Academic Integrity Policy**

Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity.

Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional code of conduct and promote academic integrity in upholding the University of Calgary's reputation of excellence. It is your responsibility to ensure that you have read and are familiar with the student academic misconduct policy: <a href="https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Academic-Misconduct-Policy.pdf">https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Academic-Misconduct-Policy.pdf</a>

## **Department of Psychology Criteria for Letter Grades**

Psychology course instructors use the following criteria when assigning letter grades:

A+ grade: Exceptional Performance. An A+ grade indicates near perfect performance on multiple choice and short answer exams. For research papers/essays/course projects/presentations, an A+ grade is awarded for exceptional work deserving of special recognition and is therefore not a common grade.

A, A- Range: Excellent Performance. Superior understanding of course material. Written work is very strong in terms of critical and original thinking, content, organization, and the expression of ideas, and demonstrates student's thorough knowledge of subject matter.

B Range: *Good Performance*. Above average understanding of course material. Written work shows evidence of critical thinking and attention to organization and editing but could be improved in form and/or content.

C Range: Satisfactory Performance. Adequate understanding of course material. Knowledge of basic concepts and terminology is demonstrated. Written work is satisfactory and meets essential requirements but could be improved significantly in form and content. Note: All prerequisites for courses offered by the Faculty of Arts must be met with a minimum grade of C-.

D range: *Marginally meets standards*. Minimal understanding of subject matter. Written work is marginally acceptable and meets basic requirements but requires substantial improvements in form and content. Student has not mastered course material at a level sufficient for advancement into more senior courses in the same or related subjects.

F grade: *Course standards not met*. Inadequate understanding of subject matter. Written work does not meet basic requirements. Student has not demonstrated knowledge of course material at a level sufficient for course credit.

# **Grading Scale**

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
Α	90-95%	В	76-79%	С	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

It is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades. To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

## **Tentative Lecture Schedule**

Date	Topic	Chapter	Due Dates
		Reading	
M Jan 9	Introduction to Psyc 365		
	University Lectures begin.		
W Jan 11	Introduction to Cognitive Psychology	Chapter 1	
F Jan 13	Introduction to Cognitive Psychology	Chapter 1	
M Jan 16	Cognitive Neuroscience	Chapter 2	
W Jan 18	Cognitive Neuroscience	Chapter 2	
Jan 19	Last day to drop a class without a penalty		
F Jan 20	Cognitive Neuroscience	Chapter 2	
	Last day to add or swap a course		
M Jan 23	Perception	Chapter 3	
W Jan 25	Perception	Chapter 3	
F Jan 27	Perception	Chapter 3	Assignment 1 Due
	Fee payment deadline for Fall Term full and half courses.		
M Jan 30	Attention	Chapter 4	
W Feb 1	Attention	Chapter 4	
F Feb 3	Attention	Chapter 4	
M Feb 6	Midterm 1	Chapters 1 - 4	
W Feb 8	Short-Term & Working Memory	Chapter 5	
F Feb 10	Short-Term & Working Memory	Chapter 5	
M Feb 13	Short-Term & Working Memory	Chapter 5	
W Feb 15	Long-Term Memory	Chapters 6 & 7	
F Feb 17	Long-Term Memory	Chapters 6 & 7	
M Feb 20	UNIVERSITY CLOSED Alberta Family Day		
Feb 19-25	Term Break		
M Feb 27	Long-Term Memory	Chapters 6 & 7	Assignment 2 Due
W Mar 1	Everyday Memory & Memory Errors	Chapter 8	
F Mar 3	Everyday Memory & Memory Errors	Chapter 8	
M Mar 6	Everyday Memory & Memory Errors	Chapter 8	
W Mar 8	Midterm 2	Chapters 5 - 8	
F Mar 10	Conceptual Knowledge	Chapter 9	
M Mar 13	Conceptual Knowledge	Chapter 9	
W Mar 15	Language	Chapter 11	
F Mar 17	Language	Chapter 11	
M Mar 20	Language	Chapter 11	Assignment 3 Due
W Mar 22	Mental Imagery	Chapter 10	
F Mar 24	Mental Imagery	Chapter 10	
M Mar 27	Problem Solving	Chapter 12	

W Mar 29	Problem Solving	Chapter 12	
F Mar 31	Problem Solving	Chapter 12	
M Apr 3	Decision Making	Chapter 13	
W Apr 5	Decision Making	Chapter 13	Infographic Assignment Due
F Apr 7	UNIVERSITY CLOSED Good Friday		
M Apr 10	UNIVERSITY CLOSED Easter Monday		
W Apr 12	Decision Making Winter Term Lectures End. Last day to withdraw with permission from Winter Term half courses.	Chapter 13	
Apr 15-26	Winter Final Exam Period		

## **Course Credits for Research Participation (Max 2% of final grade)**

Students in most psychology courses are eligible to participate in Departmentally approved research and earn credits toward their final grades. A maximum of two credits (2%) per course, including this course, may be applied to the student's final grade. Students earn 0.5% (0.5 credits) for each full 30 minutes of participation. The demand for timeslots may exceed the supply in the term. Thus, students are not guaranteed that there will be enough studies available to them to meet their credit requirements. Students should seek studies early in the term and should frequently check for open timeslots. Students can create an account and participate in Departmentally approved research studies at <a href="http://ucalgary.sona-systems.com">http://ucalgary.sona-systems.com</a>. The last day to participate in studies and to assign or reassign earned credits to courses is Wednesday, April 12, 2023.

## **Absence From Test/Exam**

Makeup tests/exams are **NOT** an option without the approval of the instructor <a href="https://www.ucalgary.ca/pubs/calendar/current/g-1-1.html">https://www.ucalgary.ca/pubs/calendar/current/g-1-1.html</a> At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Once approved by the instructor a makeup test/exam must be written within 2 weeks of the missed test/exam on a day/time scheduled by the instructor. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam <a href="https://www.ucalgary.ca/registrar/exams/deferred-exams">https://www.ucalgary.ca/registrar/exams/deferred-exams</a>

#### **Travel During Exams**

Consistent with University regulations, students are expected to be available to write scheduled exams at any time during the official December and April examination periods. Requests to write a make-up exam because of conflicting travel plans (e.g., flight bookings) will NOT be considered by the department. Students are advised to wait until the final examination schedule is posted before making any travel arrangements. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam Deferred Final Exams | University of Calgary (ucalgary.ca) Students with an exceptional extenuating circumstance (e.g., a family emergency) should contact the Department of Psychology psyugrd@ucalgary.ca

Reappraisal of Graded Term Work <a href="http://www.ucalgary.ca/pubs/calendar/current/i-2.html">http://www.ucalgary.ca/pubs/calendar/current/i-2.html</a>
Reappraisal of Final Grade <a href="http://www.ucalgary.ca/pubs/calendar/current/i-3.html">http://www.ucalgary.ca/pubs/calendar/current/i-3.html</a>

#### **Academic Accommodations**

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors.

For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <u>University of Calgary: B.6.1</u> Accommodation of Students with Disabilities or Medical Conditions (ucalgary.ca)

#### **Academic Misconduct**

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at http://www.ucalgary.ca/pubs/calendar/current/k.html

## **Instructor Intellectual Property**

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments, and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed, or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

# **Copyright Legislation**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<a href="https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy">https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy</a> ) and requirements of the copyright act (<a href="https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html">https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html</a>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

#### Freedom of Information and Protection of Privacy

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary

#### **Student Support and Resources**

https://www.ucalgary.ca/registrar/registration/course-outlines

# **Important Dates**

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Thursday**, **January 19, 2023**. Last day add/swap a course is **Friday**, **January 20, 2023**. The last day to withdraw from this course is **Wednesday**, **April 12, 2023** University of Calgary: Academic Schedule (ucalgary.ca)