

PSYC 369	Sensation & Perception		Fall 2022
Instructor:	Dr. Mark Holden	Lecture Info	MWF 11:00 – 11:50 am
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Office Hours:	By appointment		

Course Description

This course is an introduction to empirical, computational, and theoretical approaches to the study of sensation and perception. The course covers both the physiological and psychological bases of sensory and perceptual processes, including vision, audition, taste, smell, touch, proprioception, and basic psychophysics. Provides a background for advanced courses in sensory and perceptual processing, human factors, and environmental psychology.

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 <https://live-arts.ucalgary.ca/psychology/about#program-learning-outcomes>), and the expected level of achievement.

Course Learning Outcomes	Assessment Methods	PLO(s)	Level(s)
Summarize and apply the basic concepts, and theories of perception. This includes using terminology correctly, and identifying and applying relevant theories to explain various phenomena, behaviors, illusions, and perceptual processes.	Exams, assignments	1, 5, 7	C
Describe the contributions of important figures, research programs, and theories in the history of research in sensation and perception, and link major historical events in the history of the field with contemporary issues or research questions.	Exams, assignments	1, 2, 7	I
Identify, evaluate, and apply relevant theories/research/concepts of sensation & perception to explain (or develop plausible potential explanations) for various phenomena – from empirical findings, to everyday behaviors, to issues of social and societal importance.	Exams, assignments	1, 2, 5, 7	C
Accurately summarize research, and interpret both simple and complex graphs in the context of statistical significance	Exams, assignments	4, 5	C

Describe historical and modern research methods used in studying sensation & perception, as well as their advantages and disadvantages. Correctly identify situations in which one method might be preferred over another	Exams, assignments	1, 2, 4, 5, 7	C
Communicate research findings and ideas effectively, using clear and concise arguments – backed up by figures, graphs, and tables (when necessary). Disregard or challenge flawed sources of information or reasoning.	Assignments	2, 4, 5	C
Critically assess claims of ‘universal’ phenomena, and the limitations of psychological research that is not diverse or representative. Describe how these factors can affect various psychological phenomena (e.g. stress, identity development, etc).	Assignments	1, 2, 5, 8	C

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. Instruction in course will make use of a variety of techniques, including lectures, demonstrations, videos, discussions, readings, practice problems, and (maybe) the occasional guest speaker. I outline these techniques below. You will notice that there are a number of activities in which I expect students to be **active participants** in the learning process. Research shows that this type of participation improves learning and retention of material, and – anecdotally – it makes classes a lot more fun, too! ***I strongly advise students to engage in these activities, to watch the videos, and so on - as these activities are meant to make the material come to life, improve student engagement, and aid in retention of the material.***

Lectures: formal lectures will expand upon and emphasize key points from the readings. These lectures may be the primary method of instruction, but they are by no means the only method.

Demonstrations: demonstrations are common in my courses, and they often are used to highlight or emphasize concepts, methods, or techniques. Some demonstrations require the assistance of a single, brave volunteer while others may include the entire class. Students are expected to participate in demonstrations, whenever possible. As I said above, this actively helps with retention of the material. The key point is that students are expected to be active participants in the learning process.

Audio-Visual Presentations: sometimes a picture can be worth a thousand words. And a video might be worth millions. Research has shown that carefully-selected videos can make material much more memorable. Videos and links will be provided in lectures, and I strongly encourage students to attend to these videos. They are typically only a couple of minutes long, and yet they help solidify concepts in our mind!

Readings: the textbook is a strong resource for this course. Typically, when I teach concepts for this course, the majority of students understand my examples, activities, and so on. But, in some rare cases, you might find that the methods that I used just didn't *click* for you, for some reason. If this is the case, the textbook can be a valuable resource as it might explain things in a different way, which might work a little better for you. Honestly, this is pretty rare, but I do like to mention it as a possibility. There may also be sections of the textbook that are required reading, which may not be covered in class (though this is relatively rare). Chapters are included in the lecture schedule if you'd like to read along as we progress through the course. Also, because lectures do expand on the readings, I would not expect to do well by *only* reading the book (and not attending class/listening to lectures). However, I want to reassure students that this is NOT one of those dreaded "the professor will sit back and make the students read the book and learn on their own" types of courses!

Classroom Problems: I occasionally give students sample problems in class. Students are expected to try to solve the problem on their own, or in pairs or small groups. I will give time in the lectures for this, before I then go over the answers. Although you might be tempted to not bother trying to answer (and just wait, then write down the correct answer later), research strongly suggests that your learning will be better for the effort – even if you don't solve the problem the first time!

Guest Speakers: I occasionally invite guest speakers to class, if they have a unique and valuable perspective on some aspect of the course material.

Prerequisites

PSYC 200 and 201 – Principles of Psychology I and II

Course Website

The course website is on D2L at <https://d2l.ucalgary.ca>

It is here that you will find important announcements, download lecture slides, hand in assignments, and find links to other resources (as needed). Please check it often.

Recommended Text

Goldstein, E.B. & Cacciamani, L. (2021). *Sensation and Perception* (11th ed.). Boston, MA: Cengage.

This book is available in the bookstore, or can be found online. Used copies may also be available.

Course Expectations

For all of my courses, I have some expectations for both the students as well as for myself, below. In general, these all boil down to one simple rule, though: **I expect us all to be respectful of one another, and for each of us to do our part in making this a safe, comfortable learning environment for everyone.** By working together we can make this class something that we can all be proud of! Most of

all, I will insist upon maintaining a civil atmosphere – in which members of the class treat each other with mutual respect. It is through this kind of learning environment what we can focus our attention and energy on teaching and learning, rather than on frustration, conflict, and distrust. ***Please note: it is sometimes easier to say mean-spirited things online than it is in person. Even with any online communications (e.g. a group chat, discussion board, etc.), remember that the people that you are engaging with are still people and classmates. As such, I will hold and strictly enforce guidelines of mutual respect for all meetings or course-based communication systems.***

Expectations of Students

- **To be punctual, prepared, and attentive during class**
 - Lecture will start at 11:00 a.m. Please be sure to be in your seat and ready for class by this time. If you absolutely cannot avoid being late, please enter the room as quietly as possible and minimize the disruption for your fellow students. If necessary, sit in the first available seat and try to find your friends at the break.
- **To stay in class (and not begin packing bags) until dismissed**
 - Please refrain from packing up as I begin to wind down a class. Oftentimes, at the end of class I have an important announcement about readings to be omitted, assignment deadlines, and so on. Packing up, or shuffling up and down the aisles causes a great deal of distraction, and may result in you or your fellow students missing these important announcements.
- **To make every effort not to be a distraction to students around you**
 - In some cases, students are not even aware of how distracting certain activities are. Obvious examples include talking on a cell phone, or with a neighbor. Less obvious examples include texting, or checking social media on one's laptop. These are incredibly distracting behaviors for everyone behind or near you. Please refrain from doing so until the break. Also, I would request that cell phones be turned off during class lecture.
- **To be willing to participate positively and constructively during class**
 - As outlined above, active participation is a critical component to my teaching style, and improves student learning and retention of material. Acting bored or dismissive is disrespectful to both the instructor and to your fellow students.
- **To treat all other students in the class, as well as the instructor, with respect**
 - We are very lucky to have a diverse population of students at the U of C, who come from different backgrounds and bring different experiences with them. These differences are a valuable means by which we will learn about individual and group differences. I will insist that all of us treat those students who are willing to share their thoughts and experiences with our full respect and attention. Avoid disrespectful comments, tones of voice, or facial expressions.
- **To understand and abide by the procedures and regulations outlined in the syllabus**

Expectations of the Instructor

- **To be punctual, prepared, and enthusiastic during class to facilitate student learning**
 - As I mentioned in the opening note on the syllabus, I love this course. I will always come to class prepared and happy to be teaching you.

- **To treat all students with dignity, respect, and fairness in order to provide a class structure that encourages learning**
 - Teachers who are disrespectful to students need to find another occupation. Seriously. A proper learning environment is one in which students feel safe to share their thoughts, experiences, or questions. Therefore, I have always treated my students with dignity, respect, and fairness. I do not play favorites, and I *never* belittle my students. I know that it is a bit daunting to raise your hand and share your personal experiences in class. As such, I hold *all* my students in high esteem, regardless of how well they perform in my classes, and I try my best to communicate this to them through both my words and my actions.
- **To grade objectively, consistently, and to return grades in a timely manner**
 - Again, I do not play favorites. In an attempt to keep marking from being subjective, all written materials are marked using a rubric (grading scheme) which is applied fairly and consistently to all students. The grading time may vary with time of year and the type of assignment. However, you will always have your assignment grades returned in as timely a manner as possible.
- **To be genuinely concerned about and interested in student learning and performance, and to be sensitive to student needs or concerns**
 - I always want my students to succeed. I do not provide a lot of “easy bonus marks” but I will readily try to help any student with *any* aspect of the course that they are struggling to understand. If special circumstances arise that might adversely affect your course performance, please let me know as soon as possible. I can’t help if I don’t know about it.
- **To understand and abide by the procedures and regulations outlined in the syllabus**

Asking Questions During Class

Asking questions during lecture is an extremely important part of learning. I strongly encourage you to ask a question whenever you require clarification on an issue, or have an observation to make yourself. Sometimes, though, we may have so many questions or comments on a particular topic that I will need to limit the amount of time we spend on that topic, so that we can cover the required material. If this is the case, please make sure to add your question to the class discussion board (preferred) or send an email.

Note: Routine questions such as “Where is the exam?” or “What chapters are covered for the midterm?” (and so on) may already be addressed on the course website and are listed in the tentative Lecture Schedule.

Assessment Methods

Exam 1 (30%)

Covers Chapters 1-4

40 points, multiple choice exam

October 13th, 2022

Exam 2 (30%)

Covers Chapters 5, 8-10

40 points, multiple choice exam

November 8th, 2022

Exam 3 (15%)

Covers Chapters 11, 12, 14, 15

25 points, multiple choice exam

December 6th, 2022

Assignments (25%)

There are 5 assignments that will be due during the course of the semester. Each assignment counts equally (5%) toward the total. For more information, About the assignments, please see below. Due dates are shown on the course schedule.

Extra Information about Exams:

Exams in this course are closed-book. The use of resources, including class notes, the textbook, study aids, online resources, and calculators is prohibited during the exams in this course. Similarly, the use of computers, iPads, phones, graphing calculators, or any other programmable technology is NOT permitted during the exams.

Students may not communicate with others about course material or the exam either in person or electronically during the exams.

Extra Information about Assignments:

Over the semester, you will be asked to complete five short assignments. These assignments will help us to learn about the nature of perception, to answer basic questions about sensory systems, to help clarify concepts that sometimes give students trouble, and to explore material even beyond the classroom. **The 5 assignments will count equally toward the 25% “assignments” component of your final grade.**

Some assignments will involve short-answer questions or creating stimuli. Others might involve watching a short video on a particular topic and answering questions about it later. You will be graded primarily on the content of your response, as well as your communication – including the correct use of relevant terminology. You will NOT be required to use APA style.

Assignments are due by 11:59 pm on the date indicated on the schedule.

All assignments will be completed online. The assignments will be available online through D2L. Your instructor will go over how to complete these assignments in lecture, and will also post some information on D2L.

All students will be given one free “late pass” which will allow you to hand in your assignment up to 3 total days beyond the due date (no questions asked, no permissions needed). The late pass CANNOT be split across multiple assignments (e.g. 1 day late on 3 different assignments). Late passes are also non-transferrable (i.e. you cannot “gift” them to someone else).

Without instructor approval, any *other* late assignments (i.e. after the pass has been used) will receive a penalty of 20% per day late (including weekend days), up to a maximum of 4 days late. After this time, the assignment will receive a grade of 0.

Once approved by the course instructor, and at their discretion, alternative arrangements for missed assessments may be considered <https://www.ucalgary.ca/pubs/calendar/current/g-1-2.html>. Students may be asked for documentation <https://www.ucalgary.ca/pubs/calendar/current/m-1.html>.

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 a given 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 <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **Dec 9, 2023**

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:

<https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Academic-Misconduct-Policy.pdf>

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%
A	90-95%	B	76-79%	C	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 percent 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

Below is a tentative schedule for the lecture topics. However, this schedule is just a general guideline. Some topics may require more/less time, depending on many factors, such as class questions. The due date for lab assignments is, as stated above, typically on the day of your lab section, at 11:59 p.m.

Date	Topic	Chapter	Assignment
W Sep 6	<i>First Day of Lectures</i> Introduction & Welcome to PSYC 369	Course Outline	
F Sep 8	Introduction to Perception	Chapter 1	
M Sep 11			
W Sep 13			
R Sep 14	<i>Last day to drop a course without a penalty</i>		
F Sep 15	Beginnings of Perception <i>Last day to add or swap a course.</i>	Chapter 2	
M Sep 18	Beginnings of Perception (cont'd)		
W Sep 20			
F Sep 22	Neural Processing & Perception <i>Fee Payment Deadline for Fall Full and Half Courses</i>	Chapter 3	
M Sep 25	Neural Processing & Perception		Assignment 1 due
W Sep 27			
F Sep 29			
S Sep 30	UNIVERSITY CLOSED National Day for Truth and Reconciliation		
M Oct 2	Cortical Organization	Chapter 4	
W Oct 4			Assignment 2 due
F Oct 6	Perceiving Objects and Scenes (Bottom-Up and Top-Down Perception)	Chapter 5	
M Oct 9	UNIVERSITY CLOSED. Thanksgiving Day. No lectures.		

W Oct 11	Perceiving Objects and Scenes (Bottom-Up and Top-Down Perception) – cont'd	Chapter 5	
F Oct 13	EXAM 1 30%		Chapters 1-4
M Oct 16	Perceiving Objects and Scenes (Bottom-Up and Top-Down Perception) – cont'd	Chapter 5	
W Oct 18			
F Oct 20	Perceiving Colour	Chapter 9	
M Oct 23			
W Oct 25			
F Oct 27			Assignment 3 due
M Oct 30	Perceiving Depth and Size	Chapter 10	
W Nov 1			
F Nov 3	Perceiving Motion	Chapter 8	Assignment 4 (watch video)
M Nov 6	Audition (part 1)	Chapter 11	
W Nov 8	EXAM 2 30%		Chapters 5, 8-10
F Nov 10	Audition (cont'd)		
S Nov 11	UNIVERSITY CLOSED. Remembrance Day (observed Monday, Nov 13).		
Nov 12-18	Term Break. No classes.		
M Nov 20	Audition (cont'd)		
W Nov 22	Auditory Localization & Organization	Chapter 12	Assignment 5 (watch video)
F Nov 24			
M Nov 27			
W Nov 29	Cutaneous & Body Senses	Chapter 14	
F Dec 1	Cutaneous & Body Senses (cont'd) Chemical Senses (Taste & Smell)	Chapter 15	
M Dec 4			
W Dec 6	EXAM 3 15%		Ch. 11-12, 14-15
	<i>Fall Term Lectures End. Last day to withdraw with permission from Fall Term half courses.</i>		
Dec 9-20	Fall Term Final Examination Period		

Seating During Exams

Instructors and exam invigilators are free to ask students to move seats before an exam begins or even during an exam. Students must comply with this request and refusal to do so may warrant a charge of academic misconduct

Absence From Test/Exam

Makeup tests/exams are **NOT** an option without the approval of the instructor

<https://www.ucalgary.ca/pubs/calendar/current/g-1-1.html> 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**

<https://www.ucalgary.ca/registrar/exams/deferred-exams>

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 <http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

Reappraisal of Final Grade <http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

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 <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf>.

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

(https://library.ucalgary.ca/services/copyright?_gl=1*_bcjlpn*_ga*OTY1ODc0Njg0LjE2NjkxNTA1NTM.*_ga_X4GN9Y4W7D*MTY3Nzc5MjM3Ni4xNy4xLjE2Nzc3OTI4MDYuMC4wLjA) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) 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, September 14th, 2023**. Last day add/swap a course is **Friday, September 15th, 2023**. The last day to withdraw from this course is **Wednesday, December 6th, 2023**.