

PSYC 369	Sensation & Perception		Fall 2020
Instructor:	Dr. Mark Holden	Lecture Location:	Online, delivered via D2L
Phone:	403-210-9552	Lecture Days/Time:	MWF (asynchronous)
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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	3, 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, 3, 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

Class materials will be posted to the course D2L page by the day/time of each scheduled class as per the course schedule below.

Course Delivery

As you all know, the university has moved many courses to an online format for the Fall semester. But, the online delivery of this course will be remarkably similar to the in-person delivery of this course. I have taught numerous online classes before, and each of them has been just as successful as their in-person equivalents. So, as with the in-person lectures, the online delivery of this 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. As with the in person delivery of this course, 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! Please note that, unlike in an in-person lecture setting, I will not be able to monitor this participation (at least during the lecture component). It is therefore up to the students to make use of these learning opportunities (and not merely fast-forward through them). ***I strongly advise students to still engage in these activities, to watch the linked 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 (online) 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. Obviously these demonstrations will

now be guided through the online lectures, and students will be expected to participate in these on their own. 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. Links to the videos that I would have shown in class will be made available, and I strongly encourage students to watch 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. You may not be required to read the textbook per se, but chapters are included in the lecture schedule if you'd like to read along as we progress through the course. That said, lectures do expand on the readings so I would not expect to do well by reading the book alone and not attending class/listening to lectures. However, I want to reassure students that this is an online class, and I will be teaching it as such. It is not a "Mark will sit back and make the students read the book and learn on their own" course.

Classroom Problems: I occasionally give students sample problems in class. In an in-person class, students are expected to try to solve the problem in pairs or in small groups. For the online lectures, you can either do this (perhaps over the phone, with a friend) or try to solve the problems on your own. I will give time in the lectures for this, or you can hit the pause button, before I then go over the answers. Although you might be tempted to not bother trying to answer (and just fast-forward, 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!

Course Website

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

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

Prerequisites

PSYC 200 and 201 – Principles of Psychology I and II

Required Text

Goldstein, E.B. & Brockmole, J. (2016). *Sensation and Perception* (10th ed.). Boston, MA: Cengage.

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

Course Expectations

Although the course is now to be delivered online, I still 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. We are facing a unique situation, but by working together we can make this class something that we can all be proud of! Most of all, I will insist upon maintaining the same kind of civil atmosphere – in which members of the class treat each other with mutual respect – that we had in our in-person format. 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 though it is an online class, remember that the people that you are engaging with (e.g. in a group chat) are still the same people and classmates that we had in our lectures. As such, I will hold and strictly enforce all the same guidelines of mutual respect that we had for our in-person lectures.***

Expectations of Students

- **To be prepared, and attentive during class**
 - In this course, ***lectures will be delivered in an asynchronous online format.*** This means that I will record lectures and post them online so that students can listen and go through the lectures according to their own schedules and lives. This is particularly important (to me) at a time when some students might need to be working, to take care of loved ones, or who simply feel a little overwhelmed. This will allow you to engage with the lectures when you wish. If I can make a suggestion, though, I would point out that it is sometimes easy to procrastinate and then need to learn all the material at the end of the year. This is a bad idea. ***Try to set a schedule where you will listen to lectures at the same time each week.*** For many, this might mean listening to lectures for one hour, right at 9:00 on MWF, for example. For others, it might be a different schedule. But please do yourself a favor and try to set and abide by a schedule.
- **To make every effort not to be a distraction to yourself or others**
 - In an in-person class, we often talk about distracting those around us, causing them to potentially miss some of the material. But, ***engaging in other activities during online learning – such as texting, checking email, checking social media – are incredibly tempting since you’re already online. However, these activities will negatively impact your learning, as they cause distractions and make you less efficient and effective in your learning*** (as we learn about when I teach a course in Cognitive Psychology and we discuss something called “switch costs”). I would therefore strongly suggest that, when you go through online lectures, try to close all other tabs in your browser, turn off your phone, etc. That is, set aside the 75 or 50 or even just 15 minutes just for learning. Don’t allow for distractions to yourself!
- **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. There will still be activities in the online classes, and I hope that all students will still engage in these activities in an online learning platform. ***These activities increase engagement with the material, as well as retention of that material for exams.***
- **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, innuendos, and any and all other negative commentary. As I said above, this seems to be more of an issue in many online environments (see almost every chat room ever, for an example). However, I will stress that these are still the same people, students, and friends that are present in many of our in-person classes. ***If something wasn't acceptable as a comment in an in-person class, it's not acceptable online. I will still enforce the same guidelines of mutual respect among all students, whether in an online or in-person class.***

- **To understand and abide by the procedures and regulations outlined in the outline**

Expectations of the Instructor

- **To be prepared and enthusiastic during lectures to facilitate student learning**
 - As I mentioned in the opening note on the syllabus, I love this course. I will always be 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 (or comment online) to 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 “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 in this Course

Asking questions 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.

Given the online format for the class, you have a couple of different options. The first is to ask questions directly to me via email. I am more than happy to answer questions this way. Alternatively, you can post questions or comments on the discussion board that will be added to our D2L website. I will generally answer email questions within 2 business days (though it might be 3 days during particularly busy times), and discussion boards will be checked every 3-4 days.

Note: Routine questions such as “When and 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 8th, 2020

Exam 2 (30%)

Covers Chapters 5, 7-11

40 points, multiple choice exam

November 24th, 2020

Exam 3 (15%)

Covers Chapters 12, 14, 15

20 points, multiple choice exam

December 9th, 2020

Written Assignments (25%)

Several short (2-3 page) written assignments will be due during the course of the semester. For more information, please see below

Extra Information about Assignments:

Over the semester, you will be asked to complete four short assignments. These assignments will help us to explore 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 4 assignments will count equally toward the 25% “assignments” component of your final grade.**

You will be graded primarily on the content of your responses (e.g. were the interpretations of the data correct), as well as your communication – including the correct use of relevant terminology. You will NOT be required to use APA style in these assignments.

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 and will be handed in over D2L through the Assessments > Dropbox folders. Your instructor will go over how to complete these assignments in lecture, and will also post some information on D2L.

Without instructor approval of an extension, late assignments will receive a zero.

Extra Information about Exams:

Exams will be delivered online, using D2L under Assessments > Quizzes.

The exams will be available for a 24-hour period on the day of the exam, in order to accommodate student work schedules, time zone differences, and so on. Exams will be “available” starting at 9:00 AM on the date of the exam, and will be available for 24 hours. But, please note that the exams will be time-limited once they have begun (see below)

The exams will be considered to be open-book. For this course, an open-book exam means that the use of class notes and textbook is permitted. However, the use of online resources are prohibited. And, exams are to be your work, and yours alone. There is to be no collaboration or communication with other students, peers, friends, or anyone else (outside of questions for your instructor) while the exam is “active” – whether electronically or in person.

Despite the open-book policy, please note that the exams will be time-limited (once you start, you will have 65 minutes to complete each of the first three exams, and 35 minutes for the last exam). As such, it is in your best interests to study and know the material well, as you will not have time to check or look up every single answer!

Exams also will not allow for back-tracking. That is, quizzes will present students with 5 questions at a time, and students will not be allowed to move backwards through the exam once they have completed each set of 5.

Students will be required to electronically sign a confidentiality agreement before taking the exam (it basically shows up like question 1)

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 **Wednesday, December 9, 2020**.

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/policies/files/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%

As stated in the University Calendar, 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

Please note that this is a tentative schedule. Some topics may take more or less time than planned.

Date	Topic	Chapter	Assignment
T Sep 8	<i>Fall Lectures Begin</i> Introduction & Welcome to P369	Course Outline	
R Sep 10	Introduction to Perception	Chapter 1	
T Sep 15			
R Sep 17	Beginnings of Perception <i>Last day to drop a course without financial penalty.</i>	Chapter 2	
F Sep 18	<i>Last day to add or swap a course.</i>		
T Sep 22	Beginnings of Perception (cont'd)		

R Sep 24	Neural Processing and Perception	Chapter 3	Assignment 1 due (9/25)
F Sep 25	<i>Fee Payment Deadline for Fall Full and Half Courses</i>		
T Sep 29	Neural Processing and Perception (cont'd)		
R Oct 1	Cortical Organization	Chapter 4	Assignment 2 due (10/2)
T Oct 6	Perceiving Objects & Scenes (Bottom-Up and Top-Down Perception)	Chapter 5	
R Oct 8	EXAM 1 (ONLINE, AVAILABLE FOR 24 HRS) 30%		Chapters 1-4
M Oct 12	<i>Thanksgiving Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.</i>		
T Oct 13	Perceiving Objects & Scenes (Bottom-Up and	Chapter 5	
R Oct 15	Top-Down Perception) – cont'd		
T Oct 20	Perceiving Colour	Chapter 9	
R Oct 22			Assignment 3 due (10/23)
T Oct 27	Perceiving Depth and Size	Chapter 10	
R Oct 29			
T Nov 3	Perceiving Motion & Taking Action	Chapter 7 & 8	
R Nov 5			Assignment 4 due (11/6)
Nov 8-14	<i>Term Break. No lectures.</i>		
M Nov 11	<i>Remembrance Day (observed), University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.</i>	<i>No Labs (Term Break)</i>	
T Nov 17	Hearing	Chapter 11	
R Nov 19			
T Nov 24	EXAM 2 (ONLINE, AVAILABLE FOR 24 HRS) 30%		Chapters 5, 7-11
R Nov 26	Auditory Localization & Auditory Scenes	Chapter 12	
T Dec 1			
R Dec 3	Cutaneous & Body Senses	Chapter 14	
T Dec 8	Chemical Senses	Chapter 15	
W Dec 9	EXAM 3 (ONLINE, AVAILABLE FOR 24 HRS) 15%		Ch. 12, 14, 15
	<i>Fall Term Lectures End. Last day to withdraw with permission from Fall Term half courses.</i>		
Dec 12-23		Winter Term Final Examination Period	

Absence From A Test/Exam

Makeup tests/exams are **NOT** an option without the approval of the instructor. Students who miss a test/exam have up to 48 hours to contact the instructor to ask for a makeup test/exam. It's the instructor's discretion if they will allow a make-up exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. 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** <https://www.ucalgary.ca/registrar/exams/deferred-exams>. **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 <http://www.ucalgary.ca/policies/files/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 (www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf) 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 17, 2020**. Last day add/swap a course is **Friday, September 18, 2020**. The last day to withdraw from this course is **Wednesday, December 9, 2020**.

<https://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>