**Instructor:** Dr. Karsten A. Loepelmann (he/him)  
**Email:** kloepelm@ualberta.ca  
**Office:** BS P231  
**Hours:** Tues. 12:30-1:30, or by appointment  
**Phone:** (780) 492-7157  
**Class Website:** [https://sites.ualberta.ca/~kloepelm/403/](https://sites.ualberta.ca/~kloepelm/403/)

**TA:** Tim Woerle  
**Email:** woerle@ualberta.ca  
**Office:** BS P553  
**Hours:** by appointment  
**Phone:** (780) 492-7889

**Prerequisites**  
The **required** prerequisite for this course is PSYCO 367: Perception (formerly PSYCO 267), and STAT 141 or 151 or equivalent; **no** exceptions or waivers. You may not take this course for credit if you already have credit in PSYCO 365. See UAlberta Calendar section Registration: Prerequisite Course Requirements.

**Course Description & Learning Outcomes**  
This course is an intensive exploration of selected theoretical, empirical, and applied issues in vision science and perception, including visual perception, time perception, face perception, synesthesia, perception and art, the perception of food and eating, and the neuroscience of stage magic. You will learn the theoretical and empirical contributions required to understand current conceptual schemes and disputes. To do this, you will be able to take multiple points of view: the nature of the physical stimuli; the structure and function of the sense organs and receptors, and neural paths from receptors to the brain; how the sensory information is represented and processed; and what it means to perceive. Specific learning objectives will be given in lectures for each topic.

**Assessment**  
- **10 Quizzes,** worth **10%** (1% each)  
- **2 PeerWise Questions,** worth **2%** (1% each)  
- **2 Blog Post Assignments,** worth **20%** (10% each)  
- **Midterm Exam,** worth **29%**  
- **Final Exam,** worth **39%**

**Online Quizzes (10, worth 1% each):** The quizzes are intended to keep you up to date on the required readings, and to familiarize you with written assessment. Quizzes will be written online via eClass. Each quiz will be open for a 1-day (24-hour) window. You will have **10 minutes** to write a short answer to a question based on the assigned readings. Marks will be based on participation, not correctness of your answers.

**Blog Post Assignments (2, worth 10% each):** For each assignment, you will choose a peer-reviewed primary research journal article on a topic in sensation or perception, published in 2017-2022. Then you will write a blog post to summarize the article in a way that is understandable to the general public, and explain its relevance or importance. More information is provided in the Blog Post Assignment document.

**PeerWise Questions (2, worth 1% each):** You will write two multiple-choice questions based on course content and submit them on the PeerWise website, where they will be available to the rest of the class for practice and review. PeerWise also allows for upvoting and downvoting of questions. The top-ranked question in each set will receive a bonus mark of 1%. More information is provided in the PeerWise document.
Midterm Exam (worth 29%): The midterm will assess material covered in the assigned readings and lectures. Although there is much overlap between the readings and lectures, it is not a complete overlap; some content is covered only in one or the other. You are responsible for all material. The midterm will consist of short-answer questions and an essay question. If you miss a midterm for an acceptable reason such as incapacitating illness or severe domestic affliction, then the weight of the excused exam will be added to the final exam (declaration form required). Documentation must be provided within two working days of the missed exam. No makeup exams or assignments are accepted. See UAlberta Calendar sections Academic Regulations: Attendance and Examinations (Exams).

Final Exam (worth 39%): See the Office of the Registrar's exam schedule for official date, time, and location. The final exam will have short-answer questions and an essay question based on the entire course, with an emphasis on the material covered after the midterm. If you miss this exam, you must apply to your Faculty Office for a deferral of the final exam within two working days of the final exam date. See UAlberta Calendar sections Academic Regulations: Attendance and Final Examinations.

Schedule of Classes
(* indicates a quiz day)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assigned Readings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 6</td>
<td>Introduction to the course</td>
<td></td>
</tr>
<tr>
<td>Jan 18, 20*</td>
<td>Theoretical approaches to perception</td>
<td>Palmer (1999a): Theoretical approaches to vision</td>
</tr>
<tr>
<td>Feb 1, 3*</td>
<td>Brightness, lightness, &amp; edge detection; The raw primal sketch</td>
<td>Enns (2004): Edges Palmer (1999b): Processing image structure</td>
</tr>
<tr>
<td>Feb 8, 10*</td>
<td>Blog Post #1 due: Tue., Feb. 8 Perceptual organization</td>
<td>Frisby &amp; Stone (2010): Seeing figure from ground</td>
</tr>
<tr>
<td>Feb 15, 17</td>
<td>PeerWise Question #1 due: Tue., Feb. 15 Depth perception</td>
<td>Mather (2016): Depth perception</td>
</tr>
<tr>
<td>March 22, 24*</td>
<td>Midterm Exam: Thu., Feb. 17 (based on all above readings and lectures)</td>
<td></td>
</tr>
<tr>
<td>Mar 1, 3*</td>
<td>Time perception</td>
<td>Wallisch (2008): An odd sense of timing</td>
</tr>
<tr>
<td>Mar 8, 10</td>
<td>Object perception</td>
<td>Bruce et al. (2003): Object recognition</td>
</tr>
<tr>
<td>Mar 15, 17*</td>
<td>Face perception</td>
<td>Snowdon et al. (2012): The perception of faces</td>
</tr>
<tr>
<td>Mar 22, 24*</td>
<td>Synesthesia; Perception and art</td>
<td>Cytowic &amp; Eagleman (2008): Inside a synesthete's brain</td>
</tr>
<tr>
<td>Mar 29, 31*</td>
<td>Blog Post #2 due: Tue., Mar. 29 The psychology of food &amp; eating</td>
<td>Logue (2015a): The nose knows (and so does the tongue) Logue (2015b): This or that: Choosing what we eat and drink</td>
</tr>
<tr>
<td>Apr 5, 7*</td>
<td>PeerWise Question #2 due: Tue., Apr. 5 Neuromagic</td>
<td>Martinez-Conde &amp; Macknik (2008): Magic and the brain</td>
</tr>
</tbody>
</table>

As per the exam schedule, the final exam is scheduled for Friday, April 22, 2022 at 2:00p.m. in ECHA 2-430.
You must verify this date on Bear Tracks when the final exam schedule is posted.
(Deferred final exam will be held Monday, May 9, 2022 at 12:00p.m. in BS P231.)
**Grading**

Final grades will be assigned based on the University of Alberta letter grading system. This grade translation is approximate; the instructor reserves the right to use expert judgment to adjust grades as necessary.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A+</td>
<td>90-100%</td>
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<tr>
<td>B+</td>
<td>85-90%</td>
</tr>
<tr>
<td>C+</td>
<td>75-85%</td>
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<tr>
<td>D+</td>
<td>60-74%</td>
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<tr>
<td>A</td>
<td>80-84%</td>
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<tr>
<td>B</td>
<td>65-79%</td>
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<tr>
<td>C</td>
<td>55-64%</td>
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<tr>
<td>D</td>
<td>40-54%</td>
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<tr>
<td>A-</td>
<td>81-84%</td>
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<tr>
<td>B-</td>
<td>65-68%</td>
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<tr>
<td>C-</td>
<td>50-54%</td>
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<tr>
<td>F</td>
<td>0-39%</td>
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</table>

**Required Readings**

All required readings are available in a print coursepack from the bookstore, and are posted on the eClass website for this course.


The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

All forms of dishonesty are unacceptable at the University. Any offence will be reported to the Associate Dean of Science who will determine the disciplinary action to be taken. Cheating, plagiarism and misrepresentation of facts are serious offences. Anyone who engages in these practices will receive at minimum a grade of zero for the exam or paper in question and no opportunity will be given to replace the grade or redistribute the weights. As well, in the Faculty of Science the sanction for cheating on any examination will include a disciplinary failing grade (no exceptions) and senior students should expect a period of suspension or expulsion from the University of Alberta.

Absences from Examinations

For an excursion where the cause is religious belief, a student must contact the instructor(s) within two weeks of the start of Fall or Winter classes (within three days of the start of Spring or Summer classes) to request accommodation for the term (including the final exam, where relevant). Instructors may request a document to substantiate the student request.

A student who cannot write the final examination due to incapacitating illness, severe domestic affliction or other compelling reasons can apply for a deferred final examination. Students who failed at the start of term to request exam accommodations for religious beliefs are expected to follow the normal deferred final examination process. Such an application must be made to the student’s Faculty office within two working days of the missed examination and must be supported by appropriate documentation or a Statutory Declaration (see UAlberta Calendar section Absence from Final Exams).

Deferred examinations are a privilege and not a right; there is no guarantee that a deferred examination will be granted. Misrepresentation of Facts to gain a deferred examination is a serious breach of the Code of Student Behaviour.

Term Work Policy

With the exception of term work for which students did not receive feedback before the posting of final grades, students must initiate a request for reevaluation of term work with the instructor prior to the day of the final exam or in the case of courses without final exams, before the posting of final grades.

Representative evaluative course material will be presented in class and posted on the eClass website for the course.

Support Services

Students who require additional help in developing strategies for better time management, study skills or examination skills should contact the Academic Success Centre.

Students registered with Accessibility Resources have both rights and responsibilities with regard to accessibility-related accommodations. Consequently, scheduling exam accommodations in accordance with Accessibility Resources’ deadlines and procedures is essential. Please note adherence to procedures and deadlines is required for U of A to provide accommodations. Contact Academic Accommodations for further information.

Privacy Policy

Be aware that you are subject to PeerWise’s privacy policies, and that your information may reside on servers located outside of Canada.

Recording Permissions Policy

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course (e.g., lecture notes) is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author(s).

Reexamination

Reexamination is not permitted in a course in which a passing grade was achieved. A student who writes the final examination and fails the course may apply for a reexamination. Reexaminations are rarely granted. Reexaminations are governed by Calendar sections Academic Regulations: Examinations (Exams): Reexaminations, and by individual Faculty regulations. Misrepresentation of Facts to gain a reexamination is a serious breach of the Code of Student Behaviour.

Other Policies

Any typographical errors in this Course Outline are subject to change and will be announced in class. The date of the final examination is set by the Registrar and takes precedence over the final examination date reported in this syllabus.

Policy about course outlines can be found in Course Requirements, Evaluation Procedures and Grading of the University Calendar.
**In-Person Learning Appendix**
This information may be subject to change based on UAlberta policy decisions, provincial laws, and city bylaws.

**Lecture Modality**
This course is being delivered in person. If circumstances dictate (e.g., worsened pandemic conditions, instructor is incapacitated, etc.), this course will be moved to online/remote delivery for as long as required. Unfortunately, it is not possible to deliver a hybrid modality (simultaneous in-person and remote) course.

**Being On-Campus**
*Coming to Campus* is an online course for all those participating in on-campus activities. The 10-minute course will help you understand potential hazards and what you can do to protect yourself, your colleagues, and your family. Complete the course before coming to campus. Then, complete the [Campus Safety Checklist](#), which lists the steps to take before coming to campus, and read the [Start of Term Guide for On-Campus Students](#).

**CampusReady Pass**
All those coming to campus will be required to submit proof of full vaccination or an approved exemption to receive a [CampusReady pass](#). Only individuals with a valid CampusReady pass will be permitted on UAlberta's properties. See the [COVID-19 website](#) for more details. You may be asked to show your CampusReady Pass at any time that you are on campus.

**Illness**
If you are feeling sick, [stay home](#), notify your instructor, and follow UAlberta and Alberta Health Services advice. Anyone with symptoms of COVID-19 or other cold/flu-like illnesses [cannot](#) attend on-campus activities or classes until their symptoms resolve, they are feeling better, or they receive a negative COVID-19 test. If you are in class and are presenting any COVID-19-like symptoms, you will be required to [leave immediately](#). More info: [COVID-19 procedures for sick students](#).

**Mask Use**
You are currently required to wear a non-medical or fabric mask in all indoor public spaces on campus, with few exceptions. Masks are optional for speakers addressing groups when comprehension may be an issue, such as instruction and speaking to an audience. At least two metres of physical distance should be kept between the speaker and the audience/group. For more details, please review the [UAlberta mask policy](#). (Note that this is subject to change, depending on provincial, civic, and university regulations.)

**Physical Distancing**
Respectful physical distancing and smaller groups are encouraged whenever possible.

**Managing Health and Safety**
1. Health and safety is a shared responsibility among all members of our community.
2. If you are feeling ill or have symptoms, [stay home](#). If you are on campus and begin to feel unwell, return home immediately.
3. Regularly check your UAlberta email for essential information regarding [COVID-19 response notifications](#).
4. If you appear to have symptoms and you attend class, the instructor will ask you to leave.
5. If the instructor believes that the health and safety of the class is at risk for any reason, they may choose to cancel the class.
6. Up-to-date information on public safety related to COVID-19 can be found at [uab.ca/covid19](#).
Remote Teaching & Learning Appendix
The continuing challenges of the COVID-19 pandemic will require some parts of this course to be delivered remotely; in-person learning has been suspended until at least **January 23, 2022**. An update about the anticipated return of in-person activities will be shared by administration on January 18, 2022. Some tradeoffs have been made to try to preserve the essential experience of the in-person course. Every effort has been made to provide a high-quality learning experience. Be aware, though, that circumstances may result in deviations from procedures in the in-person/Before Times. Your patience and understanding are appreciated.

To successfully participate in remote learning in this course, it is recommended that you have access to a computer with an internet connection that can support the tools and technologies the University uses to deliver content, engage with instructors, TAs, and fellow students, and facilitate assessment and examinations. Please refer to [Technology for Remote Learning - For Students](#) for details. If you encounter difficulty meeting the technology recommendations, please email the Dean of Students Office ([dosdean@ualberta.ca](mailto:dosdean@ualberta.ca)) directly to explore options and support.

Please contact your instructor by the add/drop date (**January 18**) if you do not have access to the minimum technology recommended. Arrangements will be attempted to accommodate those who reach out before this date. Failure to do so may result in a zero on any assessment that depends on the minimum technology.

#### Lectures
While this course is being taught remotely, links to lecture videos will be posted on eClass; the videos themselves are hosted on YouTube. These videos are asynchronous; that is, they are not being run live at a specific day and time.

#### Office Hours
It will not be possible to have in-person office hours until at least January 23, 2022. Instead, please post general questions to the eClass discussion forum and ask personal questions via email. There may be Q&A sessions via Zoom, as required.

#### Synchronous Activities
Students have the right to not participate in synchronous activities and may turn off their cameras and audio. It is recommended that students remove all identifiable and personal belongings from the space in which they will be participating.

#### Online Behaviour
Students from many different backgrounds participate in courses at the University of Alberta. Sexist, racist, homophobic comments and other inflammatory remarks are not conducive to learning in our courses, and absolutely are not permitted. All participants are governed by the [Code of Student Behaviour](#). Be mindful when discussions involve controversial topics or issues, and consider the possibility that members of our community have themselves experienced some of these issues and/or very different realities because of these issues. Participate in a respectful and considered manner.

If you are witness to or the target of abusive or offensive behaviour in any course, please inform your instructor immediately. You may also contact the Department of Psychology Undergraduate Advisor Kerry Ann Berrisford ([psyscience@ualberta.ca](mailto:psyscience@ualberta.ca)), Associate Chair (Undergraduate) Dr Cor Baerveldt ([cor@ualberta.ca](mailto:cor@ualberta.ca)), or Chair Dr Anthony Singhal ([psych.chair@ualberta.ca](mailto:psych.chair@ualberta.ca)).
Exams

If in-person classes are suspended when midterms are scheduled, you will write the exams remotely/online synchronously (on the scheduled day and time) using exam integrity software (ExamLock) and proctoring software (Smart Exam Monitor); see below for technological requirements. While writing the online exams, you are not to refer to any notes, books, websites, people, or deities. Any use of these materials will be considered a violation of academic integrity, and will result in the matter being sent to the Associate Dean of Science (Undergraduate) and the academic discipline team. You should arrange for a place to write your exams without interruption. If you have concerns about the exam writing and/or proctoring process, please contact your instructor as soon as possible (for example, if you have religious or other reasons that do not permit you to show your face).

You will be able to contact the instructor during the exams if you encounter problems. Details to follow.

ExamLock is software that you download and run on your computer. It will prevent you from navigating away from the exam, and it will take screenshots of all your on-screen activity. System requirements for ExamLock are:
✔ macOS version 10.10 (Yosemite) or newer
✔ Windows 10
❌ iPads, Android tablets, and Chromebooks are not supported

Smart Exam Monitor is software that works with eClass; you do not have to download this to your computer. You are asked to share your screen, turn on your webcam and microphone (for the duration of the exam), and verify your identity by showing your ID. System requirements for Smart Exam Monitor are:
✔ laptop, desktop, or Chromebook computer (phones and non-ChromeOS tablets are not supported)
✔ operating system: macOS X, Windows, ChromeOS
✔ Google Chrome browser
✔ webcam
✔ microphone
✔ fully charged device and/or power supply

It is important that you read the information and privacy statement regarding remote exam proctoring, as well as the documentation in the Online Exams section of the eClass page for this course.

Technical Support

If you have any technical questions about eClass, contact eClass support at (780) 492-9372 or eclass@ualberta.ca. For any other technical questions, contact IST.

Student Resources

Updates to university-related activities impacted by COVID-19 can be found on the COVID-19 Information website.

General information about various services and resources for students, including academic, financial, health, safety, and career development, can be found on the website for Current Students.