



Intro to Cognitive Neuroscience PSYCO 375, B2 Winter 2021

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Web Page: <https://eclass.srv.ualberta.ca/course/view.php?id=68704>

Office Hours: By appointment, please contact to make arrangements

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Office Hours: By appointment, please contact to make arrangements

Lecture Time: M W F 10:00AM - 10:50AM

Lectures will be delivered in a synchronous format (i.e. 'live', at our regularly scheduled class time) via Zoom. A permanent link to these sessions will be available on our eClass page. Although the lectures will be delivered live, recordings of each lecture will be posted on eClass and there is no requirement to attend these lectures live.

Course Description: Brain basis of human cognition studied using a diverse range of techniques, with a focus on measures of brain activity such as functional neuroimaging and electrophysiology and on experimental findings in neurologically intact participants. Topics include perception, motor control, attention, memory, language, emotion, and development/aging. [Faculty of Science]

Course Prerequisites: PSYCO 275. It is the responsibility of the student to ensure they have the appropriate prerequisite(s) for the course.

Technology Requirements/Recommendations for Remote Learning:

For an optimal online learning experience, please review the University guidelines for [Technology for Remote Learning](#). If a student has any questions or concerns about these requirements/recommendations, it is highly recommended that they contact the instructor at the beginning of term.

To complete the exams, students must be able to access quiz modules in eClass. This should be possible across a wide range of hardware and software. Note that it is the responsibility of the student to ensure they have made whatever arrangements are necessary to access these assessments at the scheduled times. A practice quiz will be provided to familiarize students with this format.

Student Resources for Remote Learning:

Online learning may be new to you. Check out tips for success and find out more about online learning on the [Campus Life](#) page, and specifically on the [Student Resources for Remote Learning](#) page.

Course Objectives and Expected Learning Outcomes: This course is intended to build upon the basic understanding of cognitive neuroscience students would have developed in previous courses and introduce them to a more in-depth analysis of the relevant major topics and methods. At the conclusion of the course, students should be able to:

- Identify and explain the major methods utilized in the field
- Compare/contrast the various methods (e.g. limitations, advantages, etc.)
- Critique cognitive neuroscience experimental work

Required Textbook: Postle, B. R. (2015). *Essentials of cognitive neuroscience*. John Wiley & Sons. ISBN 9781118468265 (Ebook version), 9781118468067 (Print version)

Note that University of Alberta students have free/unlimited access to this text via the library (<https://ebookcentral.proquest.com/lib/uAlberta/reader.action?docID=1919320>).

Important Dates: See the current Calendar for the [Academic Schedule, Dates, and Deadlines](#), which include the Registration Add/Drop deadline and Withdrawal date.

Lecture Schedule & Assigned Readings:

Week/Dates	Topic	Chapter
1: Jan 11, 13, 15	Introduction, Imaging Review	
2: Jan 18, 20, 22	Visual Object Recognition	9
3: Jan 25, 27, 29	Memory I	10/11
4: Feb 1	Quiz 1	
Feb 3, 5	Memory II	12/13
5: Feb 8, 10, 12	Memory II (cont.), Cognitive Control	14
6: Feb 15, 17, 19	<u>Reading Week (no class)</u>	
7: Feb 22, 24, 26	Decision Making	15
8: March 1	Quiz 2	
March 3, 5	Social Behaviour	16
9: March 8, March 10, 12	Emotion	17
10: March 15, 17, 19	Language	18
11: March 22	Quiz 3	
March 24, 26	Media Consumption	
12: March 29, 31	Plasticity, Aging	
<u>April 2</u>	<u>Good Friday (no class)</u>	
13: <u>April 5</u>	<u>Easter Monday (no class)</u>	
April 7, 9	Attention, Mind Wandering	6/8
April 9	Review Paper Due	
14: April 12, 14, 16	Consciousness	19
15: April 21 (tentative)	Final Exam	

Grade Evaluation:

Please note that, while the following table contains an approximate guideline for the course, the instructor reserves the right to adjust this table and assign appropriate grades based on relative performance.

Distribution of Grades												
Letter grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F
% Range	≥95	90-94	85-89	80-84	75-79	71-74	67-70	63-66	60-62	55-59	50-54	<50
Grade points	4.0	4.0	3.7	3.3	3.0	2.7	2.3	2.0	1.7	1.3	1.0	0
Descriptor	Excellent			Good			Satisfactory			Poor	Minimal Pass	Fail

Grades are unofficial until approved by the Department and/or Faculty offering the course.

Components of Course Grade:

Assessments	Weighting	Date
Quiz 1	10%	Feb 1
Quiz 2	15%	March 1
Quiz 3	20%	March 22
Review Paper	20%	April 9
Final Exam**	35%	April 21 ***

** There is no possibility of a re-examination in this course.

*** WARNING: Students must verify this date on BearTracks when the Final Exam Schedule is posted.

Review Paper: Students will be responsible for writing one term paper in the style of a review article that would be found in a scientific journal. This will involve choosing a topic that can be studied using cognitive neuroscience research methodologies and providing a brief literature review on the current state of research on your chosen topic. In addition to summarizing relevant work published in journal articles related to your topic, you should also attempt to contextualize the field's current understanding of your topic by highlighting i) the prevailing theory or theories that are most relevant for understanding your topic ii) any outstanding debates related to your topic, and iii) productive directions for future research on your topic. These are due by midnight on Friday April 9th and will be submitted via eClass. Late submissions will lose 10% per day they are overdue.

Format of Quizzes: Quizzes will be accessible on the scheduled days identified in this syllabus at our regularly scheduled class time (10:00 am) via eClass. These quizzes will not require any additional software (e.g. ExamLock, SEM, etc.). Students will have 50 minutes to complete their responses. At 10:50 am, any responses that are still in progress will be automatically submitted by eClass. These quizzes will consist of a mixture of multiple-choice and short-answer questions. Students may consult their own personal resources while completing the quizzes (i.e. the textbook, lecture slides, their own notes). In other words, these will be in an 'open-book' format. However, students are not permitted to collaborate with anyone else during quizzes and doing so would constitute academic misconduct. A practice quiz will be provided to formalize students with this format. The second and third quizzes will not be cumulative.

Format of Final Exam: The format of the final exam will be similar to the quizzes that are completed throughout the semester and will also consist of a mixture of multiple-choice and short-answer questions. Additionally, students will be asked to respond to two long-answer format questions. These questions will be given to students 72 hours before the final exam, allowing students to prepare those responses prior to the scheduled exam day. *The final exam will be cumulative.* As with the midterms, this exam will be completed via eClass and will not require any additional software.

Attendance: Please refer to the Calendar policies on [Attendance](#).

Representative Evaluative Material: Sample exam questions will be provided on eClass prior to the first midterm.

Missed Term Exams and Assignments: For an excused absence where the cause is religious belief, a student must contact the instructor(s) within two weeks of the start of Fall or Winter classes to request accommodation for the term (including the final exam, where relevant). Instructors may request adequate documentation to substantiate the student request.

A student who cannot complete an exam or assignment due to incapacitating illness, severe domestic affliction or other compelling reasons must contact the instructor as soon as possible (and at the very latest, within 48 hours of missing one). At the discretion of the new instructor, a student may be allowed to either complete the exam or assignment at another time or reallocate the associated course weight towards something else (e.g. another exam).

In the event that a shift in weighting to the final exam increases its weight to >40%, this does not change the original 'syllabus weight', meaning the student does not now qualify for possible re-examination. Transferring the weight of missed quizzes to the final exam could result in the student not being approved for a deferred final examination as they may not have completed the required 50% of term work. In all cases, instructors may request a declaration to substantiate the reason for the absence, at their discretion. The Psychology Statutory Declaration form can be downloaded from the Documents folder on the Psychology Intranet. Deferral of term work is a privilege and not a right; there is no guarantee that a deferral will be granted. Misrepresentation of Facts to gain a deferral is a serious breach of the Code of Student Behaviour.

While deferral of term work/quizzes is under the discretion of the instructor, a student must apply to their Faculty for a deferral of a final exam (see below). Students granted a deferral for the first/second/third quiz will write it on Feb 8th/March 1st/March 29th, respectively.

Deferred Final Examination: A student who cannot write the final examination due to incapacitating illness, severe domestic affliction or other compelling reasons can apply to their Faculty 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 Calendar for information on [Attendance](#)). 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*. Students granted a deferral for their final exam will write it on May 5th at 1 pm.

STUDENT RESPONSIBILITIES:

Guidelines for Respectful Online Engagement: 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 Psychology Undergraduate/Graduate Advisor, Associate Chair of Undergraduate/Graduate, or Chair.

Academic Integrity: 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.

While the exams are open book (meaning students are not prohibited from accessing any personal resources such as their textbook, lecture slides, notes, etc.), students are not permitted to collaborate while completing these assessments. Doing so would constitute a violation of the student code of conduct and will be regarded as such.

All students should consult the [Academic Integrity website](#) for clarification on the various offences. If you have any questions, ask your instructor. All forms of dishonesty are unacceptable at the University. Any offence will be reported to the Associate Dean of the Faculty, who will determine the disciplinary action to be taken. See the [Academic Discipline Process](#). Sanctions range from a grade of zero for an exam or paper in question, with no opportunity to replace the grade or redistribute the weights, to a disciplinary failing grade with a period of suspension or expulsion from the University of Alberta.

Students should refer to the Calendar information on [Conduct of Exams](#) for more information.

Recording and/or Distribution of Course Materials: 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 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).

STUDENT RESOURCES:

COVID-19 Updates: Updates pertaining to university-related activities can be found on the [COVID-19 Information website](#).

Student Services and Resources: General information about various services, including academic, financial, health, safety, and career development, can be found on the website for [Current Students](#).

Accessibility Resources (AR) (1 – 80 SUB): The University of Alberta is committed to creating work and learning communities that inspire and enable all people to reach their full potential. AR promotes an accessible, inclusive, and universally designed environment. For general information to register for services visit the [Accessibility Resources](#) webpage. Eligible students have both rights and responsibilities with regard to accessibility-related accommodations. Consequently, scheduling exam accommodations in accordance with AR deadlines and procedures is essential, and adherence to procedures and deadlines is required for U of A to provide accommodations.

Academic Success Centre (1-80 SUB): [The Academic Success Centre](#) provides professional academic support to help students strengthen their academic skills and achieve their academic goals. Individual advising, appointments, and group workshops are available year round in the areas of Accessibility, Communication, Learning, and Writing Resources. Modest fees apply for some services.

The Centre for Writers (1-42 Assiniboia Hall): The [Centre for Writers](#) offers free one-on-one writing support to students, faculty, and staff. Students can request consultation for a writing project at any stage of development. Instructors can request class visits and presentations.

First Peoples' House: [The First Peoples' House](#) provides an environment of empowerment for First Nations, Métis, and Inuit learners to achieve personal and academic growth.

Health and Wellness Support: There are many health and community services available to current students. For more information visit the [Health and Wellness Support](#) webpage.

Office of the Student Ombuds: The [Office of the Student Ombuds](#) offers confidential interviews, advice and support to students facing academic, discipline, interpersonal and financial difficulties.

LEARNING AND WORKING ENVIRONMENT

The Department of Psychology, Faculty of Arts, and Faculty of Science are committed to ensuring that all students, faculty, and staff are able to work and study in an environment that is safe and free from discrimination, harassment, and violence of any kind. It does not tolerate behaviour that undermines that environment. This includes virtual environments and platforms.

The University of Alberta acknowledges that we are located on Treaty 6 territory, and respects the histories, languages, and cultures of the First Nations, Métis, Inuit, and all First Peoples of Canada, whose presence continues to enrich our vibrant community.

Policy about course outlines can be found in the [Evaluation Procedures and Grading System](#) section of the University Calendar.

Disclaimer: Any typographical errors in this syllabus are subject to change and will be announced in class and/or posted on the course website (e.g., eClass). The date of the final examination is set by the Registrar and takes precedence over the final examination date reported in this syllabus.

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