

DEPARTMENT OF PSYCHOLOGY Faculty of Arts

PSYC/NEUR 479		Human Neuropsychology	Winter 2021
Instructor:	Julia Kam	Lecture Location:	Online
Phone:	403-220-5954	Lecture Day/Time:	TR 9:30-10:45am

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Office Hours: By Appointment

Course Description

This course will integrate literature on human neuropsychology, neuroimaging, and behavioral neuroscience to highlight research on human cognitive function and dysfunction. Course materials (lectures and textbook) provide a general introduction to neuroanatomy, brain development, cerebral organization, and research methods used by neuropsychologists. Other major topics include specific areas of cognitive functioning, their neural substrates, and related disorders (e.g., attention and neglect; memory and amnesia; language and aphasia).

Course Website

The course website is on D2L at https://d2l.ucalgary.ca. This website contains all lecture videos and slides, important links to other resources, discussion platform, and more. You will also hand in your assignments via D2L. Please check it often.

Course Format

This course will use a hybrid format. In particular, four classes will be delivered live via Zoom during the scheduled class as marked by asterisks in the course schedule below (Jan 12th, Feb 4th, Mar 11th, April 15th). They will be recorded and posted to D2L after class. Class materials for the remaining lectures will be posted to the course D2L page by the day/time of each scheduled class as per the course schedule.

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	PLO(s)	Level(s)
	Methods		
Describe neuropsychological approaches to understanding brain-	Midterm and final	1	С
behavior relationships	exams		
Identify patterns of neuroanatomical disruptions associated with	Midterm and final	1, 7	С
different neuropsychological disorders	exams		

^{*}Email: please enter "Psych 479" in the subject line.

Understand how these neuropsychological disorders impact	Midterm and final	1, 7	С
cognitive and affective functions	exams; Group		
	Assignment		
Explain how neuropsychological disorders result from changes or	Midterm and final	1	С
damage to the human brain	exams		
Formulate original questions by drawing connections among	Student-generated	1, 2, 4, 7	Α
elements within the course	exam questions		
Critically evaluate and communicate empirical findings of	Group Assignment	1, 2, 4, 5, 7	Α
neuropsychological studies to public			

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.

Prerequisites

Psych 312 – Experimental Design and Quantitative Methods for Psychology <u>and</u> Psych 375 – Brain and Behaviour <u>and</u> admission to the Psychology major or Honours program or to the minor in Speech-Language Sciences for Linguistics Majors.

Required Text

Kolb & Whishaw (2015), Fundamentals of Human Neuropsychology, Seventh Edition. Hard copies and electronic copies are available at the University Bookstore. Please speak to me if you are unable to procure the textbook for any reason.

Assessment Methods

Course component	Weighting	Due date
Midterm exam 1	20%	February 9
Covers all lecture materials from Jan 12 to Feb 8		
Midterm exam 2	25%	March 16
Covers all lecture materials from Feb 11 to Mar 15		
Final exam	30%	TBD
Covers all lecture materials from Mar 17 to Apr 15		
Student-generated exam questions (10% total)		
One question from Midterm 1 lecture materials (see above)	2%	January 28
Two question from Midterm 2 lecture materials (see above)	4%	March 4

Two questions from Final Exam lecture materials (see above)	4%	April 8
Group Assignment	15%	March 30

Midterm and Final Exams

Midterm 1 (worth 20% of the final grade; February 9), Midterm 2 (worth 25% of the final grade; March 16) and final exam (worth 30% of the final grade; date TBD,) will be based on lecture material, textbook and supplemental readings. Midterms will take the entire class time, and no lectures will be given. All exams will consist of a mix of multiple-choice, short answer, and long answer questions. Exams will be non-cumulative (i.e., material covered on midterms will not be explicitly covered in the final exam) but knowledge from earlier sections of the course may be necessary to answer certain questions on later exams. Refer to Absence from an exam section in case of absence from midterms or final exam. Exams in this course are open book. For this course, an open book exam means that the use of class notes and the textbook is permitted. The use of online resources is prohibited. Students may not communicate with others about course material or the exam either in person or electronically during exams. All exams are timed, and will be available on D2L starting at 9:30am MT on the day of the exam for 24 hours. Students can begin the exam at a time that best suits their situation. Students have a 24 hour period to start a test or timed assessment. The instructor will be available from 10am to 6pm on the day of the exam to answer questions about the exam. The test will be designed to be completed within class time, but students will also be provided with an additional 50% time to account for any technological issues (75 min exam would be set up to allow 113 min to be completed once it is started within the 24 hour period). Accordingly, students will be given two hours to complete the midterms and three hours to complete the final exam. Technology requirements for exam completion include a computer and internet access.

Student-Generated Exam Questions

Students are asked to write multiple-choice, short- answer questions (<u>and answers</u>) for both midterm exams and the final exam. Examples on how to write effective questions can be found here: https://cft.vanderbilt.edu/guides-sub-pages/writing-good-multiple-choice-test-questions/ and here: https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/developing-assignments/exams/questions-types-characteristics-suggestions. When writing a short-answer question, please indicate what items you think must be present in the response to qualify as a correct answer. For each student-generated question, half the credit will be given for the question portion and the other half for the answer portion. From generating your own questions, and reviewing your peers' questions, the outcome of this assignment serves as review material in preparation for your exams.

All questions must be submitted via D2L, on the "Student-generated exam questions" discussion board so that they can be used as review material by all students prior to exams. Questions that have already been submitted by one student cannot be re-submitted by another student. A subset of submitted questions will be used on the midterms and final exams (potentially with minor alterations). One set of question/answer for Midterm 1 is worth 2% and due by January 28 (11:59pm MT); two sets of questions/answers for Midterm 2 are worth 4% and due by March 4 (11:59pm pm MT); two sets of questions/answers for the final exam are also worth 4% and due by April 8 (11:59pm pm MT). Without instructor approval questions submitted after these deadlines will not be considered or graded.

Group Assignment

In this assignment, students are asked to work in groups of 2 or 3 to prepare an infographic on a neuropsychological disorder. Students can choose from any of the neuropsychological disorders discussed in class or the textbook. The ability to critically evaluate empirical findings and communicate them to the general public is important for scientists. Therefore, the purpose of this assignment is to encourage critical evaluation of research findings and presentation of such findings in the form of an infographic intended for the general public. Evaluation criteria, resources and discussion regarding how to prepare an effective infographic will be available on D2L after week 2. Assignments are worth 15% and are due March 30 (11:59pm pm MT). One student from the group will submit the assignment via D2L. Without instructor approval, late assignments will be penalized 10% per day, including weekends.

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%
Α	90-95%	В	76-79%	С	63-66%	D	50-53%
Α-	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 percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

Tentative Lecture Schedule

Date	Topic/Lecture Delivery Mode/Due Date	Chapter Reading	
T Jan 12*	Introductions (*via Zoom)	Chapter 1	
	Lecture 1 (L1): Dev. Of Neuropsychology (via D2L)		
	Winter Lectures begin		
R Jan 14	L2: Brain Development		
T Jan 19	L3: Cerebral Organization	Chapter 1	
R Jan 21	L4: Circuits and Lateralization	Chapter 10	
	Last day to drop a class without financial penalty		
F Jan 22	Last day to add or swap a course		
T Jan 26	L5: Research Methods	Chapter 7	
R Jan 28	L6: Sensory & Motor Systems	Chapters 8 & 9	
	*Student-generated exam questions due		
F Jan 29	Tuition fee deadline		
T Feb 2	Guest Panel		
R Feb 4*	Review Session (*via Zoom)		
T Feb 9	Midterm 1 (L1-L6)	Chp 1,7,8,9,10	
R Feb 11	L7: Occipital Lobe Functions and Dysfunctions	Chapter 13	
Feb 14-20	Thanksgiving Day, University closed (except Taylor Family Digital		
	Library, Law, Medical, Gallagher and Business Libraries). No lectures.		
M Feb 15	L8: Parietal Lobe Functions and Dysfunctions	Chapter 14	
T Feb 23	L9: Temporal Lobe Functions and Dysfunctions	Chapter 15	
R Feb 25	L10: Frontal Lobe Functions and Dysfunctions	Chapter 16	
T Mar 2	L11: Learning, Memory, and Amnesia	Chapter 18	
R Mar 4	L12: Language and Aphasia	Chapter 19	
	*Student-generated exam questions due		
T Mar 9	L13: Spatial Orientation		
R Mar 11*	Review Session (*via Zoom)		
T Mar 16	Midterm 2 (L7-13)	Chp 13-16,18-19	
R Mar 18	L14: Attention and Consciousness	Chapter 22	
T Mar 23	L15: Internal Attention		
R Mar 25	L16: Emotion and Social Cognition	Chapter 20	

T Mar 30	L17: Psychiatric Disorders	Chapter 27	
	*Group Assignment due		
R Apr 1	L18: Guest Lecture		
F Apr 2	Good Friday		
M Apr 5	Non-Instructional Day, University Open		
T Apr 6	L19: Neurological Disorders	Chapter 26	
R Apr 8	L20: Neurodevelopment Disorders	Chapter 24	
	*Student-generated exam questions due		
T Apr 13	L21: Neural Plasticity and Cognitive Rehabilitation	Chapter 25	
R Apr 15*	Review Session (*via Zoom)		
R Apr 15	Last day of classes		
Apr 19-29	Final Exam (L14-21; Date TBD)	Chp 20,22,24-27	

^{*} dates indicate synchronous lectures (on zoom)

Course Credits for Research Participation

Extra Research Participation Course Credit is Not Offered for this Course.

Absence From an Exam

Makeup exams are **NOT** an option without the approval of the instructor. Students who miss a exam have up to 48 hours to contact the instructor to ask for a makeup exam. It's the instructor's discretion if they will allow a make-up exam. Students who do not schedule a makeup exam with the instructor within this 48-hour period forfeit the right to a makeup exam. At the instructor's discretion, a makeup exam may differ significantly (in form and/or content) from a regularly scheduled exam. Once approved by the instructor a makeup exam must be written within 2 weeks of the missed 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 Term Work or Final Grade

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**, **January 21, 2021**. Last day add/swap a course is **Friday**, **January 22, 2021**. The last day to withdraw from this course is **Thursday**, **April 15, 2021** https://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html