

DEPARTMENT OF PSYCHOLOGY Faculty of Arts

Course number 623 Course Name: Functional Neuroanatomy Winter 2024

Instructor: Brandy Callahan, Julia Kam, Lecture Location: AD247

Andrea Protzner, Keith Yeates

Phone: 403-220-2928 Lecture Days/Time: Friday 9-11:45am

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Office Hours: By appointment

Course Description and Objectives

Human neuroanatomy and the development of the central nervous system. Functional relationships between brain and behaviour in a variety of domains (sensorimotor, language, memory, affective processing, social behaviour, etc).

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 (Districts 5 and 6).

Course Format

This is an in-person class held on campus.

Prerequisites

Admission to the Graduate Program in Psychology or by permission of the Instructor.

Required Texts and Readings

This course does not have a required textbook. The course material consists of selected readings that students will be provided via a class Dropbox, download from the UofC online journals website (http://library.ucalgary.ca/journals), or find online as open source.

Assessment Methods

Student evaluations will be based on making a class presentation (25% of final grade), participation in class (25%), posting of discussion questions to D2L prior to class (25%), and submission of a research proposal (25%). Late assignments will not be accepted without instructor approval.

A. Class presentation (25% of final grade). Class presentations will consist of preparing and presenting a lecture on one of the topics addressed in the course. Students will be required to create a 30-45 minute PowerPoint presentation that includes some or all of the following: (1) an overview of the cognitive

function being discussed, (2) a description of the associated neuroanatomical structures and the functions normally mediated by those structures, (3) a description of the methods and procedures used to study neuroanatomy generally or the specific structures being examined, (4) examples of disorders associated with the cognitive function being discussed, and underlying neuroanatomical abnormalities, and (5) a list of learning objectives for the class (i.e. what can they expect to know by end of lecture). Students will submit PowerPoint slides one week before the class in which they are presenting, and then work collaboratively with the instructor to ensure that the slides cover all required material in an engaging manner within the time provided. Presentations will be evaluated based on both content (e.g., quality and clarity of the material covered) and delivery (e.g., enthusiasm, clarity of speech, etc.). Final student Powerpoint presentations will be posted on D2L.

- **B. Class Participation (25% of final grade).** Instructors will rate each student on their engagement and the quality of their interactions and discussion at the end of each class, on a scale from 1 (low participation) to 3 (high level of quality interaction). You are expected to participate effectively (i.e., in terms of quality and quantity) in class discussions. Your participation will be evaluated based on the following: critical or original response to course material, ability to articulate ideas and opinions, comprehension of course content, and familiarity with course readings when assigned. We will strive to create an open and inclusive environment, so that everyone can share their thoughts and ideas about the material covered. You will receive feedback on your participation approximately midway through the term and again at the end of the term.
- **C. Discussion Questions (25% of final grade).** Twenty-four hours prior to each class (i.e., by Monday morning), students are expected to post on the D2L discussion forum two questions related to the assigned readings for that class. The questions will be available to all students for discussion during the class. Discussion questions are not required if you are doing your class presentation that week.
- **D. Research proposal (25% of final grade).** Each student will write a research proposal. The proposal must focus on a topic covered during the course. The topic chosen for the proposal can be the same as that chosen by the student for his/her class presentation. In the proposal, students are required to formulate one experiment or study that would make an original contribution to the literature/topic on which the proposal focuses. Importantly, the research proposal must include humans as subjects. Research proposals will be submitted in Word format via the designated folder on D2L.

The proposal must be organized into the following sub-headings: (1) Title of the proposal and name of the student, (2) Abstract (150 words maximum), (3) Brief topic/literature overview, (4) Objective of the proposal, (5) Methods, (6) Expected results, (7) Implications and conclusions, (8) References (minimum 10; reference list in any format). Title of the proposal, name of the student, and abstract will form the "Title page" of the proposal. The body of the paper (excluding title page, abstract, and reference list) must not exceed 10 pages (double-spaced, 12 point Times or metrically equivalent font). No figures or tables should be included in the paper. Evaluation will be based on clarity, accuracy and completeness, and special consideration will be given to the novelty and originality of the proposal. The completed research proposals will be due on Friday April 12th, 2024. Late submissions of the research proposals will not be accepted without instructor approval.

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.

Faculty of Graduate Studies Grading System

A+ = Outstanding performance, A = Excellent performance, A- = Very good performance

B+ = Good performance, B = Satisfactory performance, B- = Minimum pass

C+ All grades of "C+" or lower are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. Individual programs may require a higher passing grade

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%
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 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

Ideally in table format with date of class and topics to be covered. Due dates for tests/exams and assignments should be included in this schedule as well.

Date	Topic
F Jan 12	Introductions/assignments (All)
R Jan 18	Last day to drop a class without a penalty
F Jan 19	Overview of functional neuroanatomy (Yeates)
	Last day to add or swap a course
F Jan 26	Neuroimaging and EEG (Protzner)
	Fee payment deadline for Winter Term full and half courses.
F Feb 2	Sensorimotor function (Kam)
F Feb 9	Functional brain networks (Protzner)
F Feb 16	Brain dissection (guest instructor: Fady Girgis, MD)
Feb 18-24	Term Break, no classes
F Mar 1	Language (Callahan)
F Mar 8	Memory (Protzner)
F Mar 15	Executive function (Yeates)

F Mar 22	Social-emotional function (Callahan)
F Mar 29	UNIVERSITY CLOSED Good Friday
M Apr 1	UNIVERSITY CLOSED Easter Monday
F Apr 5	Attention (Kam)
T Apr 9	Winter Term Lectures End.
	Last day to withdraw with permission from Winter Term half courses.
Apr 12-23	Winter Final Exam Period

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 18th, 2024. Last day add/swap a course is Friday, January 19th, 2024. The last day to withdraw from this course is Tuesday, April 9th, 2024.