

**NEUROSCIENCE OF COGNITION
PSYCHOLOGY 334, SECTION 101
Winter 2022**

INSTRUCTOR: Harry B. Miller, Ph.D., R.Psych.
Office: ASC 167
Phone: 250-807-9860
Office Hours: Monday 10:30am to 12:00 noon (virtual); in-person by appointment
Course official schedule: Tuesday 1400 to 1650
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COURSE FORMAT: The course will be offered online and asynchronous. Lecture recordings will be available at 2:00 pm on Tuesday each week and open until the end of term.

COURSE DESCRIPTION: The course will address current understanding of cognitive processes and the underlying substrates in the brain. Topics to be considered will include an examination of brain cellular development, neuroanatomy, neuroplasticity, sensory and motor function, and higher order cognitive areas (i.e., memory, decision making, language, and attention). As much as possible, lectures will attempt to balance theory, research, and neuropsychological cases in the understanding of the topics to be discussed.

COURSE PREREQUISITES:

6 credits of 200 – level PSYO or PSYC.

COURSE OBJECTIVES:

1. To foster a current understanding of brain-behaviour relationships as examined through research employing new and emerging investigative procedures and techniques
2. To bridge the relationship between scientific knowledge and practical application (i.e., neuropsychological assessment and treatment)
3. To encourage a critical evaluation of research of both theoretical and practical approaches to the study of higher cognitive function

REQUIRED TEXT: Gazzaniga, M., Ivry, R., and Mangun, G. (2019). *Cognitive Neuroscience: The Biology of the Mind*. Fifth Edition, 500 Fifth Avenue, New York, NY: W.W Norton and Company.

PROPOSED SCHEDULE

TOPIC	PROPOSED DATES	REQUIRED READING
Introduction and Historical Background	January 10	Chapter 1,3
Neuroanatomy/Vascular System	January 17	Chapter 2
Neuronal Communication Neuroanatomy/Vascular System	January 24	Chapter 2
Attention	January 31	Chapter 7
Exam 1	February 7	Chapters 1, 2, 3, 7, and lecture material
Memory	February 14	Chapter 9
Reading Break	February 21	
Perception	February 28	Chapter 5
Visuospatial Abilities	March 7	Chapter 6
Exam 2	March 14	Chapters 5, 6, 9, and lecture material
Sensory/Motor Function	March 21	Chapter 8
Executive Function	March 28	Chapter 12
Emotions/Social Function	April 4	Chapter 10,13
Neurological Disorders	April 11	Assigned Readings
FINAL EXAMINATION	TBA (EXAM PERIOD)	Chapters 8,10,12,13, and lecture material/Assigned Readings

EVALUATION

Exam 1	- 25%
Exam 2	- 30%
Exam 3 (Final)	- 30%
In class quizzes (8 to 10)	- 15%

EXAMINATION

Examinations will consist of a multiple choice, true/false, matching, or short answer questions. The examination will be open book format. **Open book format means you can use the text for this course, lecture Powerpoint slides, and lecture videos as reference material. You are not to search the Internet or use any other sources for information.** Examinations are to be taken on your own. The length for each examination will be 2 hours and must be taken during the scheduled class time (Tuesday 1400 to 1600). Examinations 2 and 3 (Final) will not be expressly cumulative; the emphasis will be on content covered since the previous examination. However, there will be questions that assess acquired learning and will require students to draw on previously covered material to select the correct answer. Quizzes will be approximately one per week, will be open on Tuesday 1400, and closed on Wednesday 1400. Quizzes can only be taken during that time (you will be able to drop the lowest mark (or one quiz) to obtain the average for the term).

All examinations are to be written on the date specified in the Syllabus and class. If a student is medically unfit to write a test on the designated date and time, a **medical certificate** is required **AND** I must be **notified before** the examination.

GRADING

<u>Percentage</u>	<u>Letter Grade</u>	<u>Percentage</u>	<u>Letter Grade</u>
90 – 100	A+	64 - 67	C+
85 – 89	A	60 – 63	C
80 – 84	A -	55 – 59	C-
76 – 79	B+	50 – 54	D
72 – 75	B	0 – 49	F (Fail)

68 – 71

B –

Marks for each exam and quiz, and the cumulative mark stand as earned – cannot be “bumped” up. For example, a 78% ≠ 80%; B+ ≠ A-.

OTHER INFORMATION

Disability Resources

If you require disability-related accommodations to meet course objectives, please contact the Coordinator of Disability Resources located in the Student Development and Advising area of the student services building. For more information about Disability Resources or academic accommodations, please visit the website at:

<http://okanagan.students.ubc.ca/current/disabilities.cfm>

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. Violations of academic integrity (i.e., misconduct) lead to a breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or test/examination and more serious consequences may apply if the matter is referred to the President’s Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including policies and procedures, may be found at:

<http://web.ubc.ca/okanagan/faculties/reources/academicintegrity.html>

Equity, Human Rights, Discrimination and Harassment

UBC Okanagan is a place where every student, staff and faculty member should be able to study and work in an environment that is free from human rights-based discrimination and harassment. Under UBC’s Policy 3 on Discrimination and Harassment, UBC prohibits discrimination and harassment on the basis of the following grounds: age, ancestry, colour, family status, marital status, physical or mental disability, place of origin, political belief, race, religion, sex, sexual orientation or unrelated criminal conviction.

If you require assistance related to an issue of equity, discrimination or harassment, please

contact the Equity Office, your administrative head of unit, and/or your unit's equity representative.

IKBSAS Unit 4 Equity Representative: Paul Gabias: paul.gabias@ubc.ca, 807-9383

UBC Okanagan Equity Advisor: ph. 250-807-9291; email equity.ubco@ubc.ca

Web: www.ubc.ca/okanagan/equity

Unit Equity Representatives:

<http://www.ubc.ca/okanagan/equity/programs/equityreps/unitcontacts.html>