

NEUR 1000 Introduction to Neuroscience

Spring 2018

PE250

Lecture: Tu/Th 1050-1205

Instructors:	Dr. Robert Sutherland	Dr. Andrew Iwaniuk
Office:	EP1240, CCBN	EP1150, CCBN
Phone:	394-3987	332-5288
Email:	robert.sutherland@uleth.ca	andrew.iwaniuk@uleth.ca
Office hours:	by appointment	by appointment

Teaching Assistants:	Justin (Quinn) Lee	Rui Pais	Pauline Balogun
e-mail:	justin.lee@uleth.ca	r.pais@uleth.ca	p.balogun@uleth.ca
office hours:	by appointment	by appointment	by appointment

Course Description

Introduction to the brain and how its ability to process information affects the way we perceive, act, interact socially, remember, think and create. The course is designed to provide fundamental knowledge about the brain that can assist you in a variety of settings. The course should help you become a critical consumer of neuroscience information. The major emphasis in this course is to familiarize students with the anatomy, physiology, development, cognitive/behavioural functions, and common pathologies of the brain. Evidence and ideas from neuroscience are increasingly being used to inform/direct health, educational, legal, biotechnology/industrial and social policy practices.

Recommended background

Biology 30

Course Objectives

This course aims to provide you with basic information about how the brain works. We will delve into the history of neuroscience research and modern approaches to provide an integrative view of brain function at an introductory level. By the end of the course students will have an exposure to and appreciation of the fundamental cellular and systems level organization of the brain, as well as basic principles of neural activity, psychoactive drug actions, functions of the cerebral cortex, and methods in brain research.

Reading Material

There is no textbook for the course, but readings that are both relevant and important to each lecture will be posted on Moodle

Recommended or Optional Learning Resources:

Additional resources, such as websites and YouTube videos, will also be made available on Moodle for some of the lecture material.

Student Responsibilities:

Academic Integrity: This course adheres strictly to the University of Lethbridge’s policy on academic dishonesty. Please consult the calendar for the definition and consequence of this behaviour. Cheating, plagiarism and misrepresentation of facts are serious offenses. 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. Any offense will be reported to the Dean of Arts and Science who will determine the disciplinary action to be taken. Typical sanctions for serious violations of the Code have included disciplinary grade reductions, disciplinary failing grades, suspension or permanent expulsion from the university.

Exams: Students are not allowed to have any electronic devices with them during any of the exams. All you will need is a pencil, eraser (or a pen if you are feeling confident) and at least a modicum of knowledge.

Positive environment: In order to create and maintain an enjoyable and productive environment for learning, it is important that we treat each other collegially and with respect. We should expect that we will all arrive on time for class; avoiding abusive language; avoiding use of cell phones; checking email, Facebook, Snapchat, Twitter etc. during class; being respectful of different opinions; and adhering to confidentiality. Confidentiality means not disclosing identifying details of classmates’ stories/experiences with others outside the class. It is also important to consider sharing only what you are comfortable sharing.

Students With Disabilities: Students who require accommodation in this course due to a disability are advised to discuss their needs with the Disability Resource Office (SU140, disability.inquiries@uleth.ca).

Disclaimer: Any typographical errors in this Course Outline are subject to change and will be announced in class and via Moodle or email.

Grading:

Quizzes	15%
Midterm I	25%
Midterm II	25%
Final Exam	35%

Participation in neuroscience experiments will allow for points to be added to your final grade for a maximum of 5 percentage points. Contact the TAs for further information

Grading Scheme:

A+	> 91	C+	67-69.9
A	85-90.9	C	63-66.9
A-	80-84.9	C-	60-62.9
B+	77-79.9	D+	56-59.9
B	73-76.9	D	50-55.9
B-	70-72.9	F	< 50

Quizzes:

Three (3) quizzes will be posted on Moodle. The format of these quizzes will be 'fill in the blank' style questions based on the lecture material. For example,

"Cells known as _____ are considered to be the basic building blocks of the nervous system."

Each quiz is worth 5% of your final grade. The dates for the quizzes are as follows:

Quiz 1 – 22 January

Quiz 2 – 28 February

Quiz 3 – 28 March

Exams:

All three exams will include any combination of short answer, multiple choice, matching, crossword puzzles and/or true/false questions. To prepare for the exams, make sure that you attend class, take notes and read the additional materials provided (e.g., additional readings, websites, videos, etc.). Also, pay special attention to the summary slide at the end of each lecture.

Exam 1 and Exam 2 will be hard copy exams provided in class. Exam 3 will be a hard copy exam written during Final Exam Week

Exam 1 – Lectures 1-8 (5 February)

Exam 2 – Lectures 9-15 (12 March)

Exam 3 – cumulative (Final Exam Week)

- **Note that the date and time for Exam 3 will be posted as soon as it becomes available. For details see: <https://www.uleth.ca/ross/resources>**

Missed Exams: University policy requires a medical certificate that indicates some incapacitating medical illness or condition for students to be excused from missing any exam. Notes from doctors do not automatically grant an excused absence. Given satisfactory documentation, the student will have the weight of their final exam increased to make up for the missed exam. Students missing exams due to a death in the family or other circumstances will also be required to provide documentation.

Questions about your grade?

If you have questions about your final grade or grade on a quiz or exam, you must contact one of the instructors within 7 days of receiving your grade. Beyond the 7 days, you must provide a written request explaining why you would like your grade re-examined and why you were unable to ask about it at an earlier date.

Lectures:

This course will be based on a series of lectures delivered by both instructors. The topics to be covered are varied in order to provide you with a broad perspective on neuroscience as a topic of scientific research. The lecture schedule is as follows:

Date	Lecture	Topic	
8 Jan	1	Introduction	AI/RS
10 Jan	2	Conceptual underpinnings	RS
15 Jan	3	What is the brain?	AI
17 Jan	4	A shocking story	AI
22 Jan	5	Imaging the brain	RS
24 Jan	6	How poisoned sausages make you look younger	AI
29 Jan	7	May I take your frontal lobes?	RS
31 Jan	8	Australia is trying to kill you	AI
5 Feb		EXAM #1	
7 Feb	9	Remembering patient HM	RS
12 Feb	10	Metal health will drive you mad	AI
14 Feb	11	Speak clearly I am hard of thinking	RS
		READING WEEK	
26 Feb	12	Aliens in your brain	AI
28 Feb	13	How to hit a fastball	AI
5 Mar	14	Sex in the brain	RS
7 Mar	15	Island of the colourblind	AI
12 Mar		EXAM #2	AI
14 Mar	16	That bad taste in your mouth	AI
19 Mar	17	Addicted to dopamine	RS
21 Mar	18	Do humans smell terrible?	AI
26 Mar	19	The neuroscience of 'love'	AI
28 Mar	20	Dementias R Us	RS
2 Apr	21	When are you dead?	RS
4 Apr	22	Left and Right	AI

Please note that although every effort will be made to adhere to the lecture and exam schedules, we reserve the right to change the lecture schedule and dates of exams and quizzes. Any significant changes to the schedules will be announced in class and will be posted on Moodle.

Lecture notes:

Lecture notes will be posted on the Moodle website on the day of that lecture. These will include all figures being presented in the lecture, but be forewarned that not all text slides will be available. Simply downloading the lecture notes and not attending class is unlikely to result in a positive outcome for you.

Questions About Lecture Material?

Although the instructors are available most of the time, please make an appointment at least 1 day in advance if you have additional questions or concerns, **especially prior to an exam**. Appointments can be made in person, by phone or email, **but please do not email questions**. Your instructors receive hundreds of emails per day and the likelihood of us answering an emailed question in a timely fashion is low.