



**COURSE OUTLINE**

1. **Course:** NEUR 201, Introduction to Neuroscience - Fall 2020

Lecture 01: TR 15:30 - 16:45 - Online

Instructor	Email	Phone	Office	Hours
Dr Richard Wilson	wilsonr@ucalgary.ca	403 831-7773	HRMB (FOOTHILLS CAMPUS)	After lectures on Tuesday and Thursday, or by arrangement as required.

All classes will be via Zoom. An email with Zoom link and password will be emailed to registered students at the beginning of term.

Tuesday / Thursday at 15:30 - 16:45

**Online Delivery Details:**

This course is being offered online in real-time via scheduled meeting times, you are required to be online at the same time.

All classes will be via Zoom. An email with Zoom link and password will be emailed to registered students at the beginning of term.

Tuesday / Thursday at 15:30 - 16:45

**Course Site:**

D2L: NEUR 201 L01-(Fall 2020)-Introduction to Neuroscience

**Note:** Students must use their U of C account for all course correspondence.

2. **Requisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

**Prerequisite(s):**

Biology 30 and admission to the Neuroscience program.

3. **Grading:**

The University policy on grading and related matters is described in [F.1](#) and [F.2](#) of the online University Calendar.

In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %	Date
Student presentations (Neuroscience Debates)	20%	Oct 27 - Nov 5
Student presentations (HBI members' Bios)	20%	Dec 1- Dec 3
Written assignment: Term paper	40%	DUE Nov 27
Class participation	20%	

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
<b>Minimum % Required</b>	95 %	90 %	85 %	80%	75%	70 %	65 %	60%	55%	50 %	45 %

4. **Missed Components Of Term Work:**

The university has suspended the requirement for students to provide evidence for absences. Please do not

attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

#### 5. **Scheduled Out-of-Class Activities:**

There are no scheduled out of class activities for this course.

Dec 6th Visit to the Wilson Lab (Rm 2066, Health Science Building)

#### 6. **Course Materials:**

Recommended Textbook(s):

Purves, *Neuroscience*: Sinauer Associates.  
Nicholls, *From Neurons to Brain*: Sinauer Associates.  
Squire, Berg, Bloom et al, *Fundamental Neuroscience*: Elsevier.

A text book is not mandatory for Neuro201; these examples are provided here for students who seek a recommendation.

Powerpoint presentations will be posted to D2L before each lecture.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Stable internet connection.

For more information please refer to the UofC [ELearning](#) online website.

#### 7. **Examination Policy:**

This course has no exam; evaluation is via student presentations, class participation and a term paper.

Students should also read the Calendar, [Section G](#), on Examinations.

#### 8. **Approved Mandatory And Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course.

#### 9. **Writing Across The Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section [E.2](#) of the University Calendar.

## 10. Human & Living Organism Studies Statements:

Students will not participate as subjects or researchers in human studies.

See also [Section E.5](#) of the University Calendar.

**STUDIES IN THE BSc NEUROSCIENCE PROGRAM MAY INVOLVE THE USE OF LIVING AND DEAD ORGANISMS.** Students taking laboratory- and field-based courses in these disciplines can expect involvement with and experimentation on such materials. Students perform dissections on dead or preserved organisms in some courses. In particular courses, students experiment on living organisms, their tissues, cells, or molecules. Sometimes field work requires students to collect a variety of living materials by many methods, including humane trapping.

All work on humans and other animals conforms to the Helsinki Declaration and to the regulations of the Canadian Council on Animal Care. The program strives for the highest ethical standards consistent with stewardship of the environment for organisms whose use is not governed by statutory authority. Individuals contemplating taking courses or majoring in one of the fields of study offered in the program should ensure that they have fully considered these issues before enrolling. Students are advised to discuss any concern they might have with the Undergraduate Program Director of the Department.

Students are expected to be familiar with [Section SC.4.1](#) of the University Calendar.

## 11. Reappraisal Of Grades:

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See [Section I.3](#) of the University Calendar.

- a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections [I.1](#) and [I.2](#) of the University Calendar
- b. **Final Exam:** The student shall submit the request to Enrolment Services. See [Section I.3](#) of the University Calendar.

## 12. Other Important Information For Students:

- a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, [Mental Health Services Website](#)) and the Campus Mental Health Strategy website ([Mental Health](#)).
- b. **SU Wellness Services:** For more information, see [www.ucalgary.ca/wellnesscentre](http://www.ucalgary.ca/wellnesscentre) or call [403-210-9355](tel:403-210-9355).
- c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email ([svsa@ucalgary.ca](mailto:svsa@ucalgary.ca)) or phone at [403-220-2208](tel:403-220-2208). The complete University of Calgary policy on sexual violence can be viewed at (<https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>)
- d. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples.**
- e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical

condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at [procedure-for-accommodations-for-students-with-disabilities.pdf](#).

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Program Director of the Neuroscience Program, Dr. Willem Wildering by email [bscndir@ucalgary.ca](mailto:bscndir@ucalgary.ca) or phone 403 220-5283. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See [Section E.4](#) of the University Calendar.

- f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see [Legal Services](#) website.
- g. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca). SU Faculty Rep., Phone: [403-220-3913](tel:403-220-3913) Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca). [Student Ombudsman](#), Email: [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca).
- h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction ([USRI](#)) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.
- i. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or [non-academic misconduct](#), in addition to any other remedies available at law.

NEURO 201 (Version  
COURSE 1)  
Fall 2020 Term

ONLINE ONLY: <https://ucalgary.zoom.us/j/91022360231> Passcode:297992

Recommended text books (useful not required for course): Fundamental Neuroscience and/or Neuroscience (6th Edition)

Block week	Tues. Sept. 1	Block week-- no class	
	Thurs. Sept 3	Block week-- no class	
Week 1	Tues. Sept. 8	Introduction to the neuroscience program	BSc Neuroscience teaching team
	Thurs. Sept. 10	How to succeed as a Neuroscience Undergraduate	Richard Wilson <wilsonr@ucalgary.ca>
Week 2	Tues. Sept. 15	What is neuroscience?      Question and answers	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Sept. 17	How do neurons work? Part 1 Morphology	Richard Wilson <wilsonr@ucalgary.ca>
Week 3	Tues. Sept. 22	How do neurons work? Part 2 Passive electrical properties	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Sept. 24	How do neurons work? Part 3 Passive electrical properties	Richard Wilson <wilsonr@ucalgary.ca>
Week 4	Tues. Sept. 29	How do neurons work? Part 4 Active electrical properties	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Sept. 1	Neuroscience techniques--measuring activity of cells	Richard Wilson <wilsonr@ucalgary.ca>
Week 5	Tues. Oct. 6	How do neurons work? Part 5 Electrical transmission and synapses	Richard Wilson <wilsonr@ucalgary.ca>

	Thurs. Oct. 8	Neuroscience techniques--measuring activity of networks		Richard Wilson <wilsonr@ucalgary.ca>
Week 6	Tues. Oct. 9	Anatomy of a nervous system	Invertebrates and vertebrates	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Oct. 11	Neuroscience techniques--modulating activity of networks		Richard Wilson <wilsonr@ucalgary.ca>
Week 7	Tues. Oct. 13	Autonomic systems	Regulating the body's internal state	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Oct. 15	Motor systems	Controlling physical interactions with the world	Richard Wilson <wilsonr@ucalgary.ca>
Week 8	Tues. Oct. 20	Sensory systems	Experiencing the world	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Oct. 22	Developmental Neuroscience	Building a Brain with the HBI Education Director	Richard Wilson <wilsonr@ucalgary.ca>
Week 9	Tues. Oct. 27	Student presentations: Debate 1	Artificial intelligence will/will not make all jobs obsolete	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Oct. 29	Student presentations: Debate 2	Halloween Special - Fear is rational/irrational	Richard Wilson <wilsonr@ucalgary.ca>
Week 10	Tues. Nov. 3	Student presentations: Debate 3	US Election Special - Intelligence will save/destroy us	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Nov. 5	Student presentations: Debate 4	The mmedia drives/hides neuroscience research	Richard Wilson <wilsonr@ucalgary.ca>
Week 11	Tues. Nov. 10	Term Break-- no class		
	Thurs. Nov. 12	Term Break-- no class		
Week 12	Tues. Nov. 17	Learning, memory and consciousness	Neuroscience secrets to doing well in exams	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Nov. 19	Brain Injury	Spinal cord injury and concussion	Richard Wilson <wilsonr@ucalgary.ca>
Week 13	Tues. Nov. 24	Brain diseases	An overview of degenerative and network diseases	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Nov. 26	Career corner	How do I engage in neuroscience researcher at the UofC?	Richard Wilson <wilsonr@ucalgary.ca>
	Frid. Nov. 27	Assignment due (email to wilsonr@ucalgary.ca by noon with UCID# and name in subject line).		
Week 14	Tues. Dec. 1	Student presentations: Biography of HBI neuroscientists	By individuals in Teams A to D	Richard Wilson <wilsonr@ucalgary.ca>
	Thurs. Dec. 3	Student presentations: Biography of HBI neuroscientists	By individuals in Teams E to H	Richard Wilson <wilsonr@ucalgary.ca>
Week 15	Tues. Dec. 8	Career corner	What's it like to do neuroscience research as a career?	Richard Wilson <wilsonr@ucalgary.ca>
Week 16	Tues. Dec. 15	Exam week		No class
	Thurs. Dec. 17	Exam week		No class

### Course Outcomes:

- Communicate scientific information orally and visually, effectively utilizing graphical representations.
- Distil salient points from oral/visual scientific presentations and provide constructive feedback to peers.
- Critically engage with lecture material and formulate questions which delve deeper and demonstrate recognition of gaps in knowledge.
- Identify key historical figures and recognize their contributions to neuroscience.
- Compare methodological approaches used in neuroscience and broadly discern the purposes for which they are employed.
- Critically analyze existing literature on a topic in neuroscience and articulate their own opinions through a standard format review paper.
- Interact with scientific experts in their research facilities with the aim of recognizing the aims and techniques of their research.

Electronically Approved - Sep 15 2020 14:24

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**Department Approval**

Electronically Approved - Sep 15 2020 17:39

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**Associate Dean's Approval**