

Department of Biology Course Outline

SC/BIOL 4380 Systems Neuroscience Winter 2022

Course Description

This course investigates the neural basis of perception, short-and long-term memory, higher-order cognitive functions and disorders of the mind and brain. Emphasis is on understanding how neural interactions process sensory information and control complex behaviour. Three lecture hours. One term. Three credits.

Prerequisites

SC/BIOL 3060

Course Instructors and Contact Information

Dr. Steven Connor
saconnor@yorku.ca

Office

Faquharson Life Sciences 255

Course Office hours: **By Appointment, via email or Zoom**

Email with student number and BIOL 4380 in subject line.

Schedule

Lectures	Thursday 7.00 – 10.00 pm	Online or in-person (lectures will be recorded and posted for 1 week after the lecture).
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Evaluation

The final grade for the course* will be based on the following items weighted as indicated:

Midterm Examination: 25%

Final Examination (non-cumulative): 30%

Written Assignment 30%

Quizzes 15%

Exams, midterms and written assignments are to be completed individually, closed book

*Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

Important Dates

For important dates such as holidays, refer to the "Important Dates" section of the Registrar's Website at <http://www.yorku.ca/yorkweb/cs.htm>

Resources

Suggested Texts:

1. Recommended: Purves et al. Neuroscience (5th edition) Sunderland, MA: Sinauer Associates
2. Bear, Connors, & Paradiso. Neuroscience: Exploring the Brain (4th Edition), Wolters Kluwer.
3. Gazzaniga. The Cognitive Neurosciences (4th Edition), MIT Press.

Readings (recommended) will be posted on the eClass course website.

Course Content

The course involves formal lectures, supplemented with videos. The readings are suggested to complement the lecture material.

Course Policies

Evaluation

The midterm exam will consist of approximately 100 marks. The final exam will consist of approximately 120 marks. The tests will consist of short and long answer questions which may include diagrams. Students will have 2h (midterm) and 3h (final) to complete the exams, respectively. Quizzes will be take-home (for 24hrs post lecture) and are designed to prepare you for the exams by familiarizing you with the depth of understanding required to perform well.

Grading, Assignment Submission, Lateness Penalties and Missed Tests

Grading: The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Assignments and tests will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc.)

(For a full description of York grading system see the York University Undergraduate Calendar -

<https://calendars.students.yorku.ca/2021-2022/grades-and-grading-schemes>

Students may take a limited number of courses for degree credit on an ungraded (pass/fail) basis. For full information on this option see Alternative Grading Option in the Faculty of Science section of the Undergraduate Calendar:

Missed Midterm and Final:

You MUST email your course director within TWO days (48 hours) of missing the test.

Valid and appropriately detailed documentation supporting the events (typically medical or emergency related) preventing your attendance must be submitted to my mailbox in the Biology Office (Farquharson 247) within SEVEN (7) days of the missed test. Documentation should cover the date of the missed test.

Medical (illness) related : You MUST see a Physician within 24 hours of the missed test – ideally on the same day - so that the Physician can confirm you are too ill to attend the test based on medical examination. Valid documentation for medical situations consists of an “Attending Physician’s Statement” from the registrar petitions package http://www.registrar.yorku.ca/pdf/petitions/petition_package.pdf or letter/document of similar detail. A note that simply says you were seen in the clinic will not be accepted.

Death of an immediate family member. death certificate or letter from the funeral Director.

Contact your instructor to determine the appropriate documentation required for other circumstances.

If appropriate documentation is NOT provided within seven (7) days, a zero will be earned on the missed midterm. NOT all situations will be accommodated, meaning that a zero will be earned on the

missed test. Circumstances not accommodated include, but are not limited to: schedule confusion, sleeping in, missing the bus/flight, personal endeavours (including a job), death of family pet, wedding of distant relative and busy lives. A single makeup test will be scheduled approximately one week after the original test. This exam may differ in format from the original test (i.e., include more short/long answer questions). Further extensions or accommodation will require students to submit a formal petition to the Faculty.

Tests in Alternative Exams

Students with an up-to-date letter of accommodation from the Counselling and Development Centre, which allows them to sit exams as part of the Registrar's Office Alternative Exams scheme, are responsible for scheduling their own exams (<http://www.yorku.ca/altexams/>). To maintain the integrity of the exam, any sitting in alternative exams must be scheduled for the same day as the remainder of the class. Please note that the alternative exams facility now requires 15 business days notice. If a student fails to make a booking in sufficient time, they will have the option of sitting the exam under the same conditions as the other students in the class or receiving an F for the exam. An additional version of the examination will not be set to accommodate a tardy student. It is recommended that every student books the date of the mid-term immediately.

Recording Lectures:

Photographs or video recordings of any portion of the lectures (including slides) are PROHIBITED. Images and material presented are subject to CANADIAN COPYRIGHT LAW. They may not be distributed or sold to anyone, Audio recordings are permitted provided they are used ONLY as a personal study aid, and are NOT sold, passed on to others or posted online. Remember the lectures are the intellectual property of the professor and cannot be distributed without permission.

IMPORTANT COURSE INFORMATION FOR STUDENTS

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Academic Standards, Curriculum & Pedagogy webpage (see Reports, Initiatives, Documents) - <http://secretariat.info.yorku.ca/files/CourseInformationForStudentsAugust2012.pdf>

- Senate Policy on Academic Honesty and the Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation

University Policies

Academic Honesty and Integrity

York students are required to maintain the highest standards of academic honesty and they are subject to the Senate Policy on Academic Honesty (<http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>). The Policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and of the student to abide by such standards.

There is also an academic integrity website with comprehensive information about academic honesty and how to find resources at York to help improve students' research and writing skills, and cope with University life. Students are expected to review the materials on the Academic Integrity website at - <http://www.yorku.ca/academicintegrity/>

Access/Disability

York University is committed to principles of respect, inclusion and equality of all persons with disabilities across campus. The University provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and programs at York University.

Students in need of these services are asked to register with disability services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with each professor to discuss your accommodation needs. Please note that registering with disabilities services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs.

Additional information is available at the following websites:

Counselling & Disability Services - <http://cds.info.yorku.ca/>

Counselling & Disability Services at Glendon - <http://www.glendon.yorku.ca/counselling/personal.html>

York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

Ethics Review Process

York students are subject to the York University *Policy for the Ethics Review Process for Research Involving Human Participants*. In particular, students proposing to undertake research involving human participants (e.g., interviewing the director of a company or government agency, having students complete a questionnaire, etc.) are required to submit an *Application for Ethical Approval of Research Involving Human Participants* at least one month before you plan to begin the research. If you are in doubt as to whether this requirement applies to you, contact your Course Director immediately.

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. Should any of the dates specified in this syllabus for an in-class test or examination pose such a conflict for you, contact the Course Director within the first three weeks of class. Similarly, should an assignment to be completed in a lab, practicum placement, workshop, etc., scheduled later in the term pose such a conflict, contact the Course director immediately. Please note that to arrange an alternative date or time for an examination scheduled in the formal examination periods (December and April/May), students must complete an Examination Accommodation Form, which can be obtained from Student Client Services, Student Services Centre or online at

http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf (PDF)

Student Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic

atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at - <http://secretariat-policies.info.yorku.ca/policies/disruptive-andor-harassing-behaviour-in-academic-situations-senate-policy/>