

# NROD60: Current Topics in Neuroscience

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## Instructor

Dr. Angelina  
Paolozza

## Email

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## Office Location

TBD

## Office Hours

Thursday 5-6pm or  
by appointment

## Course Information

Thursdays 3-5pm

BV 359

Prerequisite: NROC61H3 and NROC64H3

Exclusion: none

## Course Overview:

An intensive examination of selected issues and research problems in the Neurosciences.

This course provides a broad overview of theories and research in neuroscience across the lifespan. The course will discuss the brain starting in infancy and progressing through to old age. Each class will begin with a brief lecture on the topic, but the course is mainly seminar format with class discussions. Each week, students read a series of papers and/or empirical reports, present on these papers and discuss these readings in class. Students are responsible for holding these discussions. Readings are provided on the class website. Each week there will be one article on typical development/healthy aging and one article on atypical development/neurodegeneration.

## Class Structure:

Introduction lecture	Presented by Instructor	20 min
Paper 1 presentation	Presented by student	30 min
Class discussion		15 min
Paper 2 presentation	Presented by student	30 min
Class discussion	Entire class participation	15 min

## Mark Breakdown:

Reaction to the readings (2 total) [5% each]	10%
Presentations	25%
Knowledge translation	25%
Research proposal	30%
Participation in discussions	10%

## Course Outline

Week	Date	Topic
1	January 10	Meet & Greet <ul style="list-style-type: none"> <li>- Presentation assignments</li> <li>- Reaction to the readings assignments</li> </ul>
2	January 17	Visual development <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Cerebral Visual Impairment</li> </ul>
3	January 24	Working Memory <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Fragile X</li> </ul>
4	January 31	Inhibition <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Fetal alcohol spectrum disorder</li> </ul>
5	February 7	Attention <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Attention deficit hyperactivity disorder</li> </ul>
6	February 14	Language development <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Developmental language disorder</li> </ul>
	February 21	Reading week
7	February 28	Resilience <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Neglect</li> </ul>
8	March 7	Dual Tasking <ul style="list-style-type: none"> <li>- Healthy aging</li> <li>- Stroke</li> </ul>
9	March 14	Inhibition <ul style="list-style-type: none"> <li>- Healthy aging</li> <li>- Schizophrenia</li> </ul>
10	March 21	Emotions <ul style="list-style-type: none"> <li>- Healthy aging</li> <li>- Huntington's disease</li> </ul>
11	March 28	Motor Function <ul style="list-style-type: none"> <li>- Healthy aging</li> <li>- Parkinson's disease</li> </ul>
12	April 4	Memory <ul style="list-style-type: none"> <li>- Typical performance</li> <li>- Alzheimer's disease</li> </ul>

### **Reaction to the readings:**

Students will write a total of two reaction papers (max 1 page double-spaced) on an assigned article of your choice (max one per week). Briefly summarize the article (max. ½ page) and discuss at least one criticism to the research study. For example, discuss issues with the methodology, results, conclusions that the authors draw based on the results or other possible conclusions. You do not need to use outside sources, although you may do so if you wish. The task is to be able to present and develop a coherent criticism based the reading. The paper is due before the start of class each week and late submissions **will not be accepted**.

### **Presentations:**

Each student will do one 30-minute PowerPoint presentations based on one of the assigned research articles. Each presentation should consist of an introduction, methodology, results, and discussion section. The introduction should briefly summarize the topic material and relevant background information. The methodology and results sections should summarize the methods used in the study and the results that were found. The discussion section should discuss the results in context with other literature. The discussion should also include various criticism and issues with the paper that can be used to start a class discussion.

### **Knowledge translation:**

Knowledge Translation is defined as a dynamic and iterative process that includes synthesis, dissemination, exchange, and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system. Knowledge dissemination involves identifying the appropriate audience and tailoring the message and medium to the audience. This assignment is to design an information booklet for patients based on one of the assigned research articles (max 4 pages double-spaced including images). The purpose of this assignment is to give you practice translating research into something that is understandable to a layman population that the research affects. The student will pick one of the provided scenarios and write a booklet so that an average person, with a high school education could understand the content. It should include helpful images and/or illustrations such as flow charts or graphs. Please reference your article and outside sources using the referencing format of your choice (reference list does not count toward the 4-page limit). The booklet is due **January 31, 2019**.

### **Research proposal:**

Students are to prepare a research proposal for a future study based on the findings from an assigned paper. The proposal should have sufficient information to convince your readers that you have an important research idea, that you have a good grasp of the relevant literature and the major issues, and that your methodology is sound. The proposal should include an introduction that provides the necessary background or context for your research problem as well as a comprehensive literature review. The Method section should provide your work plan and describe the activities necessary for the completion of your project. You should also include a short paragraph on your hypothesis and what you expect to find. References must be from primary sources and not internet

sites like Wikipedia. At least two of the references should be from the last two years. You must format your references using the guidelines developed by the American Psychological Association's Publication Manual (6th edition). The proposals are max 4 double spaced pages. The proposal is due **April 5, 2019**.

### **Participation:**

A component of your final mark is based on class participation, which includes attendance, discussion contribution, and feedback provision. Because this course is a weekly seminar, it is critical that you come to class and that you actively participate.

### **Additional Information:**

- 1) All registered students for the course should have access to Blackboard. This will serve as the class website, where all lecture slides and course-related materials will be posted. This will also be the site where term test marks will be made available, along with important announcements that will be made throughout the term.
- 2) The students are responsible to keep up with the required readings and attend the lectures. If there are problems and/or with understanding the course material, it is the student's responsibility to seek out available resources that include asking and discussing with the teaching staff. The professor and teaching assistants are all available by appointment.
- 3) **Getting Help with Course Materials:** If your question is not answered here in this syllabus or on the course Web site, you may send an e-mail message to one of our TAs, but please allow two working days' time for a reply.
- 4) During exams, students need to bring their U of T student ID cards (NO EXCEPTIONS) and a soft-lead pencil with an eraser for filling in the scantron.
- 5) Late assignments will receive a 5% per day deduction.
- 6) **Missed Term Work due to Medical Illness or Other Emergency:**

All students citing a documented reason for missed term work must submit their request for accommodations **within three (3) business days** of the deadline for the missed work.

Students must submit **BOTH** of the following:

1. A completed **Request for Missed Term Work Accommodations form** (<http://uoft.me/PSY-MTW>), and
2. **Appropriate documentation** to verify your illness or emergency, as described below.

### **Appropriate documentation:**

For missed **TERM TESTS** due to **ILLNESS**:

Submit the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>), along with an **original** copy of the official UTSC Verification of Illness Form ([uoft.me/UTSC-Verification-Of-Illness-Form](http://uoft.me/UTSC-Verification-Of-Illness-Form)) or an **original** copy of the record of visitation to a hospital emergency room. Forms are to be completed in full, clearly indicating the start date, anticipated end date, and severity of illness. The physician's registration number and business stamp are required.

For missed **ASSIGNMENTS** due to **ILLNESS**:

Submit the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>), along with a **hardcopy** of the Self-Declaration of Student Illness Form ([uoft.me/PSY-self-declare-form](http://uoft.me/PSY-self-declare-form)).

For missed term tests or assignments in **OTHER CIRCUMSTANCES**:

Submit the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>), along with:

In the case of a **death of a family member or friend**, please provide a copy of a death certificate.

In the case of a **disability-related concern**, if your desired accommodation is within the scope of your Accommodation Letter, please attach a copy of your letter. If your desired accommodation is outside the scope of your Accommodation Letter (ex. if your letter says “extensions of up to 7 days” but you need more time than that) you will need to meet with your consultant at AccessAbility Services and have them email Keely Hicks ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) detailing the accommodations required.

For U of T Varsity **athletic commitments**, an email from your coach or varsity administrator should be sent directly to Keely Hicks ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **well in advance** of the missed work, detailing the dates and nature of the commitment.

For **religious accommodations**, please email ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **well in advance** of the missed work.

Documents covering the following situations are NOT acceptable: medical prescriptions, personal travel, weddings/personal/work commitments.

### **Procedure:**

Submit your (1.) request form and (2.) medical/self-declaration/other documents in person **WITHIN 3 BUSINESS DAYS** of the missed term test or assignment.

**Submit to:** Keely Hicks, Room SW420B, Monday – Friday, 9 AM – 4 PM

Exceptions to the documentation deadline will only be made under exceptional circumstances. If you are unable to meet this deadline, you must email Keely Hicks ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **within the three business day window** to explain when you will be able to bring your documents in person. Attach scans of your documentation.

Within approximately one week, you will receive an email response from your instructor detailing the accommodations to be made (if any). **You are responsible for checking your official U of T email and Quercus course announcements daily, as accommodations may be time-critical.**

Completion of this form does NOT guarantee that accommodations will be made. The course instructor reserves the right to decide what accommodations (if any) will be made. Failure to adhere to any aspect of this policy may result in a denial of your request for accommodation.

**Instructors cannot accept term work after April 12, 2019.** Beyond this date, you would need to file a petition with the Registrar’s Office to have your term work accepted (<https://www.utoronto.ca/registrar/term-work>).

Note that this policy applies only to missed assignments and term tests. Missed final exams are handled by the Registrar’s Office (<http://www.utoronto.ca/registrar/missing-examination>).

- 7) Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services as soon as possible. AccessAbility Services staff (located in Rm SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca). The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.
- 8) Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement;
- Submitting your own work in more than one course without the permission of the instructor;
- Making up sources or facts;
- Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:

- Using or possessing unauthorized aids;
- Looking at someone else's answers during an exam or test;
- Misrepresenting your identity; and
- When you knew or ought to have known you were doing it.

In academic work:

- Falsifying institutional documents or grades;
- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes; and
- When you knew or ought to have known you were doing so.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If students have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, they are expected to seek out additional information on academic integrity from their instructors or from other institutional resources.

Note: You may see advertisements for services offering grammar help, essay editing and proof-reading. Be very careful. If these services take a draft of your work and significantly

change the content and/or language, you may be committing an academic offence (unauthorized assistance) under the *Code of Behaviour on Academic Matters*.

It is much better and safer to take your draft to the Writing Centre as early as you can. They will give you guidance you can trust. Students for whom English is not their first language should go to the English Language Development Centre.

If you decide to use these services in spite of this caution, you must keep a draft of your work and any notes you made before you got help and be prepared to give it to your instructor on request.

For reasons of privacy as well as protection of copyright, unauthorized video or audio recording in classrooms is prohibited. This is outlined in the Provost's guidelines on Appropriate Use of Information and Communication Technology. Note that students may obtain consent to record lectures.