

# NROD60: Current Topics in Neuroscience

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## Instructor

Dr. Angelina  
Paolozza

## Email

angelina.paolozza@  
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## Office Location

Portable 103, Room  
123

## Office Hours

Tuesday 4-5pm or by  
appointment

## Course Information

Tuesdays 5-7pm

MW223

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
Break		10 min
Paper 2 presentation	Presented by student	30 min
Class discussion	Entire class participation	20 min

## Mark Breakdown:

Reaction to the readings (4 total) [4% each]	16%
Presentations [10% each]	30%
Knowledge translation	18%
Research proposal	26%
Participation in discussions	10%

## Course Outline

Week	Date	Topic
1	May 2, 2017	Meet & Greet <ul style="list-style-type: none"> <li>- Presentation assignments</li> <li>- Reaction to the readings assignments</li> </ul>
2	May 9, 2017	Visual development <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Cerebral Visual Impairment</li> </ul>
3	May 16, 2017	Working Memory <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Fragile X</li> </ul>
4	May 23, 2017	Inhibition <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Fetal alcohol spectrum disorder</li> </ul>
5	May 30, 2017	Attention <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Attention deficit hyperactivity disorder</li> </ul>
6	June 6, 2017	Language development <ul style="list-style-type: none"> <li>- Typical development</li> <li>- Developmental language disorder</li> </ul>
	June 13, 2017	Reading week
7	June 20, 2017	Dual Tasking <ul style="list-style-type: none"> <li>- Healthy aging</li> <li>- Stroke</li> </ul>
8	June 27, 2017	Inhibition <ul style="list-style-type: none"> <li>- Healthy aging</li> <li>- Schizophrenia</li> </ul>
9	July 4, 2017	Emotions <ul style="list-style-type: none"> <li>- Healthy aging</li> <li>- Huntington's disease</li> </ul>
10	July 11, 2017	Motor Function <ul style="list-style-type: none"> <li>- Healthy aging</li> <li>- Parkinson's disease</li> </ul>
11	July 18, 2017	Pain <ul style="list-style-type: none"> <li>- Acute pain</li> <li>- Chronic pain</li> </ul>
12	July 25, 2017	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 four 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 three 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 **May 30, 2017**.

**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 **Tuesday July 25, 2017**.

### **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 Emergency:**

#### **Psychology Missed Term Work due to Medical Illness or Emergency Policy:**

All students citing a documented reason for missed term work must bring their documentation to the Psychology Course Coordinator, Ainsley Lawson, **within three (3) business days** of the assignment due date.

**\*\* All requests must be accompanied by the Request for Missed Term Work form \*\***

(<http://uoft.me/PSY-MTW>)

In the case of missed term work due to **illness**, only an **original copy** of the official UTSC Verification of Illness Form will be accepted (<http://uoft.me/UTSC-Verification-Of-Illness-Form>).

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.

In the case of **medical emergency**, an original copy of the record of visitation to a hospital emergency room should be provided.

In the case of a **death of a family member**, a copy of a death certificate should be provided.

In the case of a **disability-related** concern, an email communication should be sent directly to the Course Coordinator ([psychology-undergraduate@utsc.utoronto.ca](mailto:psychology-undergraduate@utsc.utoronto.ca)) from your Disability Consultant at AccessAbility Services. The course instructor should also be copied.

For U of T **Varsity athletic commitments**, an email communication should be sent directly to the Course Coordinator ([psychology-undergraduate@utsc.utoronto.ca](mailto:psychology-undergraduate@utsc.utoronto.ca)) from a coach or varsity administrator should be submitted, **in advance** of the missed work.

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

Your request form and medical/other documents must be submitted in person **within 3 business days** of the missed test or assignment. Forms should be submitted to **SW427C between 9 AM - 4 PM**, Monday through Friday. You will receive an email response from the Course Instructor / Course Coordinator detailing the accommodations to be made (if any). You are responsible for checking your official U of T email daily, as accommodations may be time-critical. The Course Instructor reserves the right to decide what accommodations (if any) will be made for the missed work.

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

**Failure to adhere to any aspect of this policy may result in a denial of your request for accommodation.**

- 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.