

PSY490H1 F LEC0201 20229:Seminar in Behavioural Neuroscience

 Edit

*****Please use the following zoom link for a virtual classroom and office hour:**

<https://utoronto.zoom.us/j/5658016438>

Meeting ID: 565 801 6438

Passcode: 497570

Google doc link for presentation schedule:

[Presentation schedule](https://docs.google.com/spreadsheets/d/18vuBbd-AeEvrnp3Q2OQZDmw5x3Qg1G_ITqBtwERIVUc/edit?usp=sharing)

[\(https://docs.google.com/spreadsheets/d/18vuBbd-AeEvrnp3Q2OQZDmw5x3Qg1G_ITqBtwERIVUc/edit?usp=sharing\)](https://docs.google.com/spreadsheets/d/18vuBbd-AeEvrnp3Q2OQZDmw5x3Qg1G_ITqBtwERIVUc/edit?usp=sharing)

Brain and Behavior Seminar (PSY490)

INSTRUCTOR: Junchul Kim kim@psych.utoronto.ca

Office: Sidney Smith Room 4028, Phone: 416-978-4260

CLASS ROOM: SS2101

[\(https://www.classfind.com/toronto/room/BL312\)](https://www.classfind.com/toronto/room/BL312)

COURSE DESCRIPTION

The course will survey a variety of genetic neuron manipulation methods being used in the systems neuroscience field, with a particular focus on light-induced neuron manipulation methods and applications.

COURSE WEBSITE

All course-related information will be provided on Quercus, including course syllabus and articles. Announcements relating to the course will also be posted on Quercus. It is your responsibility to check the course website on a regular basis for any pertinent announcements.

EVALUATION and DUE DATES:

Presentation 40%

Written summary of articles 30%

Attendance/participation 30%

SCHEDULE OF LECTURES (topics subject to change)

Sept 9: Introduction 1 - course outline and presentation schedule

Sept 16: Introduction 2 - optogenetic approach

Sept 23: Topic 1

Sept 30: Topic 2

Oct 7: Topic 3

Oct 14: Topic 4

Oct 21: Topic 5

Oct 28: Topic 6

Nov 4: Topic 7

Nov 18: Topic 8

Nov 25: Topic 9

Dec 2: Topic 10

Written summary of articles:

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation website.

Late/Missed Assignments

Each written assignment is worth 3 points. Students will lose 2 points for each late written assignment and 3 points for missed assignment.

[/support.papersapp.com/support/solutions/articles/30000042293-](https://support.papersapp.com/support/solutions/articles/30000042293-)

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▾ □ **INTRODUCTION**

- 1. Instructor
- 2. Students (major, minor, etc)

▾ □ **Course description**

- 1. A seminar class where we learn how optogenetic tools are used to study animal behaviours.

▫ 1. Format - student presentation

- 1. 20-30 min presentation
 - 1. Two presenters per week
- 2. 20-30 min discussion
 - 1. Two discussants lead the discussion session

▾ □ **Schedule (10 weeks: 20 students) : 2 students per week**

- 1. Organizing the presentation schedule
- 2. Introduction to the optogenetics
- 3. Learning and memory-1
- 4. Learning and memory-2
- 5. Anxiety/depression/schizophrenia
- 6. Reward/drug seeking/addiction
- 7. Eating/satiety control
- 8. Aggression/hunting/escape
- 9. Sensory perception,
- 10. Sleep and arousal
- 11. Non-human primate application, Movement/Parkinson disease

▾ □ **Guideline for presentation**

- 1. Consult with the instructor, if necessary
- 2. Focus on the main message, not the small details.
- 3. Presentation format
 - 1. length: 20-30 min presentation + 20-30 min discussion
 - 2. background (known)
 - 3. hypothesis/research question (unknown)
 - 4. findings/methods
 - 5. conclusion/summary
- 4. One research article for each student. However, depending on the length of the article, you can cover more than one article.
- 5. Upload to the Quercus each week

- 1. If you are a presenter, upload the article (as a pdf file) a week before the presentation - i.e. the end of Friday
- 2. If you are not, upload one page summary of the article (as a pdf file) by the end of Thursday.
- 3. If you are a presenter, you don't need to submit the summary.
- 6. If you are a discussant, prepare a list of questions for a discussion session.

▾ □ **Marking scheme**

- 1. Presentation 40%
- 2. Written summary of articles 30%
- 3. Attendance/participation 30%