

Molecular Genetics Graduate Topic Course

Course Title: Post-transcriptional Regulatory Mechanisms

Course Location: MaRS 1522

Course Time and Date: Julie Claycomb and Craig Smibert

Course Instructor(s): Julie Claycomb and Craig Smibert

Instructor Contact Information (email): <julie.claycomb@utoronto.ca>, <c.smibert@utoronto.ca>

Additional Lecturers (list name, email, Department): N/A

Enrollment: 12 to 18

Course Overview:

This course will cover topics related to the mechanisms underlying post-transcriptional control of gene expression. Topics change yearly, reflecting the most recent state of the field, and may include concepts such as: RNA binding proteins, alternative ribosomes, lncRNAs, phase separated RNA granules, riboswitches, small RNAs regulation, etc.

Students will be organized into 6 groups. Each group will be assigned a topic, develop a ~45 min power point-assisted lecture that would be suitable to teach this topic to a class of first year graduate students, and present the lecture to the class.

Following the presentation the class will discuss a paper related to the topic. Students (either volunteers or chosen at random) who were not involved in that week's presentation will present individual figures from the paper.

Course Objectives:

- To obtain a detailed understanding of select topics in post-transcriptional regulation
- To gain experience researching a field and generating an oral presentation
- To gain experience reading papers and critically evaluating them

Marking Scheme:

- 25% In-class participation - We expect all students to participate in all aspects of each class. This includes asking questions of the lecturers and participating in the evaluation and discussion of the methods, data and conclusions, as well as the significance of the results for the field.
- 25% Presentation of paper figures, 10% Figure summary forms
- 40% Introductory lecture:
 - Slide and presentation organization/quality 10 %

- Ability to answer questions 10 %
- Content 20 %

Attendance:

We expect attendance at each and every class and we WILL NOT make exceptions for foreseeable absences (i.e. pre-planned out-of-town travel, etc). Exceptions will be made for illness that is document with a doctor's note. In such cases you will provided with an assignment based on the reading for that week that you can use to make up for the lost class.

Course schedule:

Specific topics will be announced in the future and could include topics such as x, y and z. Assigned readings will be provided at the beginning of the course. In addition to the research article, relevant review articles will also be provided.

Sept. 14, 2020	2pm-3pm	Organizational meeting
Oct. 19, 2020	2pm-4pm	Topic: TBA
Oct. 26, 2020	2pm-4pm	Topic: TBA
Nov. 2, 2020	2pm-4pm	Topic: TBA
Nov. 9, 2020	2pm-4pm	Topic: TBA
Nov. 16, 2020	2pm-4pm	Topic: TBA
Nov. 23, 2020	2pm-4pm	Topic: TBA

PLEASE NOTE: ALL GROUPS WILL BE REQUIRED TO SET UP A MEETING WITH THE COURSE COORDINATORS AT LEAST 1 WEEK PRIOR TO YOUR PRESENTATION. AT THIS MEETING YOU TAKE THE COORDINATORS THROUGH YOUR PRESENTATION, SO THEY CAN PROVIDE CONSTRUCTIVE FEEDBACK.