

Course Code: MMG 1302H

Course Title: 'Advanced imaging: techniques and data analysis in biological systems'

Course Coordinator: Kenichi Okamoto, Mei Zhen

Course Location: 600 University Ave. Mount Sinai Hospital, 8th floor, Rm. 885A

Course Time and Date: April 24th to May 29th (every Wed 1-3 pm) TBD.

Course Overview:

The course provides an overview and fundamental knowledge of optical microscopic techniques and the foundational computational approaches for analysis and interpretation of imaging data in biological research.

- The course consists of six modules involving brief introductions on specific imaging techniques by presentations on research papers that highlight the application of these techniques and data analysis.
- By the end of the course, students will present short research proposals on a research project of their interest, utilizing at least one imaging technique and data analysis covered by the course.

Course Objectives:

- Understand recent microscopic imaging techniques and data analysis
- Discuss the applications of these techniques
- Propose research projects utilizing the techniques

Marking Scheme:

- 50 % - Paper presentation
- 25 % - Research proposal presentation
- 25 % - Class participation and discussion

- If you anticipate missing a class, you must let the instructor know in advance, given the weight on participation and the fact that there are only six classes.

- By emailing and letting us know that you have a legitimate reason for missing the class, you will be provided with an assignment based on the reading for that week which you can use to make up for the lost class.