

MATH 7875
Mathematical Biology Journal Club (1 credit)
Fall 2024

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COURSE DESCRIPTION: Journal Club is a 1-hour weekly course designed to aid students in their transition from undergrad to graduate school. This course will provide students with the opportunity to develop their skills in reading, discussing, and presenting mathematics papers in the area of mathematical biology. It will also serve as a place where students can discuss their concerns regarding graduate school or teaching with their peers.

This year, we are also adding a coding bootcamp, a writing experience, and lab field trips! We hope these experiences will develop essential research skills and better inform what working with the various faculty members is like.

FORMAT: We will meet once a week for one of the following:

- **Presentations:** One student will give a 50 minute presentation on a mathematical biology paper.
 - **Fall Semester:** All students will give a chalk talk format presentation. First year students will choose a paper from the list of suggested journal articles. Second year students may choose any paper.
 - **Spring Semester:** First year students will give a chalk talk format presentation and second year students will give a Beamer format presentation. All students may choose any paper to present.
- **Faculty Research Talks (Fall Semester):** A mathematical biology faculty member will give a 50 minute presentation on their area of research. This is a great way to start thinking about which kinds of research problems you might be interested in.
- **Coding Bootcamp (Fall Semester):** We will learn some coding, culminating in a build a figure exercise. This will be tailored to your previous experiences.
- **Lab Field Trip (Spring Semester):** (details TBD)
- **Writing Experience (Spring Semester):** (details TBD)

EXPECTATIONS:

- Presentation:
 - Each student will be expected to prepare a 50 minute presentation of a Math Bio Journal Article using the provided guidelines.
 - Each student (**first and second year**) will also prepare for a pre-presentation meeting with Katie and Ray or Alex to discuss their presentation content and the paper content as needed. **This meeting should take place about one week prior to your presentation and each student is expected to bring their presentation notes to their pre-presentation meeting.**
 - Second year students are expected to discuss paper content with a faculty member and first year students are encouraged to do so.
 - After presenting, each student will debrief with Katie and Alex or Ray and will **submit their presentation notes.**

- Participation:
 - On the days you are not presenting you will be expected to come prepared for discussion, by reading the article to be presented and preparing **three questions for the presenter.** These questions must be submitted on the slack channel by the end of the day on Sunday before the presentation. These questions should help you start thinking critically about the paper as well as prepare you to be an active participant in the presentation.
 - After the presentation, the whole group will participate in a short discussion about the paper (quality and clearness of writing, use of figures, effectiveness of argument etc.)
 - On days when no student is presenting, you will be expected to attend and engage with the alternative presentation or activity.
 - Each student will be expected to be an *active participant* in Journal Club discussions.