MATH 7875-009 Mathematical Biology Journal Club (1 credit) Fall 2015

Owen Lewis Office: LCB 301 Phone: 801-585-1641

Email: olewis@math.utah.edu

Website: www.math.utah.edu/ ∼olewis

Katrina Johnson Office: LCB 306

Email: kjohnson@math.utah.edu

Website: www.math.utah.edu/~kjohnson

Journal Club Website: www.math.utah.edu/~olewis/classes/MathBioJC.html

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 the reading, discussing, and presentation of 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.

FORMAT: Each week one student will give a 50 minute presentation of a mathematical biology paper. This presentation should be structured as follows: 10 minutes background/introduction, 15 minutes of methods, 15 minutes of results, 5 minutes of discussion, and a brief (5 min) recap of your presentation.

At the end of each of the five sections of the presentation the floor will be opened up for questions and discussion.

- Fall Semester: All students will give a "chalk talk" format presentation.
- Spring Semester: First year students will give a "chalk talk" format presentation and second year students will give a beamer/powerpoint format presentation [Beamer preferred].

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 either Owen or Katrina 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 Owen and Katrina and will submit their presentation notes.

• Participation:

- On the days you are not presenting you will be expected to come *prepared* for discussion.
- Each week students will be required to submit a brief article summary that addresses the following:
 - * What are the main question(s)/hypotheses addressed by the article?
 - * What techniques did the authors use to address them?
 - * What are the main results of the paper?

Summaries may be handwritten or typed. Content may be in paragraph form or complete sentence bullets. In addition to the required article summary you may want to consider one or more of the following questions to help you come *prepared* for discussion:

- * What assumptions did the author(s) make in constructing their model?
- * According to the author(s), do the results answer the question(s)/support their hypothesis? Why or why not?
- * Do you agree with the author(s)? Do you feel that the results support the author(s) conclusions?
- * Do you have any additional questions/comments about the paper content?
- Each student will be expected to be an active participant in Journal Club discussions.