

Microbiology 797L

Phylogenetics Journal Club

Instructor: Dr. Kristen DeAngelis, deangelis@microbio.umass.edu
Course info: Cataolg No. 30460
Meetings: TBD (scheduled upon enrollment), 50 minutes per week
Office Hours: 1-2:30pm ISB Cafe, or by appointment only

Course description: This one unit discussion course meets weekly to discuss peer-reviewed journal articles involving phylogenetics. As the study of evolutionary relationships among organisms, phylogenetics (or making and analyzing trees) provide inference into traits of unknown relatives, and can also ruin assumptions of independent sampling when comparing traits of multiple organisms.

There are no formal pre-requisites, but this course is geared towards graduate students interested in studying more than one individual organism or species. Each week, papers will be chosen by participants and approved by the instructor. We will not limit papers to microbes or by year published. Students are expected to come to class having read and ready to discuss papers. Participants will not use powerpoint presentations. For longer review-type papers, we may spend more than one class time getting into the details. Classes will begin with optional 2-minute snippets of current research.

Each participant presents once. Here are some guidelines for the paper discussion:

- Make a 1-2 sentence **summary** of the paper. What is the main take-home message?
- State the **context** of the paper. Why did the investigators set up the experiments? What was the hypothesis or knowledge gap?
- Summarize the **methods**, and make sure everyone understands how the experiments were conducted. Highlight the controls that were set up and their purpose.
- Summarize each **figure and table**, or choose the most important ones required for the main conclusions of the paper.
- Leave 5-10 minutes at the end of the meeting to summarize the author's **conclusions**, and discuss whether the paper is convincing, and why.

Learning objectives: The goal of the journal club is for students to discuss and explain scientific research; analyze research approaches related to phylogenetics; and evaluate research approaches.

Class Policy: Academic Honesty Statement: Academic honesty is expected and required of all students at the University of Massachusetts Amherst. dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Students are expected to be familiar with this policy, as ignorance of such standards is not normally sufficient evidence of lack of intent (http://www.umass.edu/dean_students/codeofconduct/acadhonesty/).

Accommodation Statement: UMass Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, learning, or psychological disability on file with Disability Services (DS), you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify me within the first two weeks of the semester so that we may make appropriate arrangements. Please reach out to Disability Services or the UMass Dean of Students if you feel you may need accommodations in order to be successful in your course work.

Grade Basis: This class is pass fail, and you will pass if you attend class meetings, participate in the discussions, and present once. I appreciate knowing when not to expect you. I will let you know if you are in danger of failing. Students may miss two group meetings per semester with no penalty, or more depending on circumstances approved by the course instructor.

2019 Fall Class Schedule

Week	Date	Presenter
1	Sept 3	Organizational meeting
2	Sept 12	~ No class ~
3	Sept 19	Kristen DeAngelis
4	Sept 26	Mayrolin Garcia Morales
5	Oct 3	Ayousha Shahi
6	Oct 10	Michaela Elliott
7	Oct 17	Rachel Bell
8	Oct 24	Melissa Shinfuku
9	Oct 31	Damayanti Rodriguez-Ramos
10	Nov 7	Catie Kitrinis
11	Nov 14	Ben Peters
12	Nov 21	Margaret Hilliard
13	Nov 28	~ No class... happy Thanksgiving! ~
14	Dec 5	Xiaojing Shi