IB 499: Discussions in Integrative Biology: Improving Photosynthetic Efficiency

Lecture Information

Instructor:
Steve Long
Office: 1408 Carl R. Woese Institute for Genomic Biology
Email: slong@illinois.edu
Office Hours: by appointment

S/U only (no letter grade).

1 credit hr.

Catalogue Description:
Seminars, discussions, research project presentations, readings, and reviews of special topics in integrative biology.

Expanded Description:
This course addresses recent developments in photosynthesis research and approaches to genetic improvement of photosynthetic efficiency. This includes development of laboratory and field research planning and organizational skills, and both written and verbal communication skills. We will review through critical presentations and discussions, in a seminar-setting, new discoveries in photosynthesis and emerging techniques for modification of photosynthesis, from the peer-reviewed literature, bioRxiv, participants’ own research projects and research plans. The requirements include weekly class attendance and discussion, a PowerPoint presentation delivered in class, written peer-review of a fellow presenter’s and at least one paper review.

This course is not required for the IB major.

Course Type: Online via Zoom.

Course Structure: Once weekly, 13:00 – 15:00.

Text: No textbook. Primary literature is assigned as needed.

Course Web Site: Materials for the course will be posted to the Long Lab Meetings folder: https://uofi.app.box.com/folder/51954788007?s=8gzn3ecti58ccpe567q3ca5oy1k0fq05

Prerequisite: Consent of instructor.

Student Learning Outcomes:
1. Students will be able to present, explain and critically evaluate the content a primary scientific data paper, on photosynthesis or closely related topics.
2. Students will understand the key elements of a primary scientific paper and its effective communication, through appraisal and practice.
3. Students will understand the key elements of a short talk or poster presentation, and their effective communication, through appraisal and practice.
Assignments, Course Attendance, and Grading

Course Grading Assignments and Philosophy
1) You are required to attend all class meetings; occasional medical and instructor preapproved absences are accepted. **Our expectation is that you will read any assigned material before coming to class.**

2) Participation is critical and will be graded, as it will help you learn the material and help us gauge understanding.

Contesting Grades
Students who believe that their grade awarded is demonstrably improper by reason of capricious or arbitrary grading should confer with the Associate Director of Academic Affairs in the School of Integrative Biology. Students who are unable through such discussion to arrive at a mutually agreeable solution may file a written appeal with the Capricious Grading Committee of the School of Integrative Biology. Prompt attention to these concerns is important. The appeal must be filed within six working weeks after the start of the next semester.

For further information, refer to §3-107 of the Student Code:
https://studentcode.illinois.edu/article3/part1/3-107/

Disabilities Statement
If you require special accommodations, please contact Dr. Hauber via email as soon as possible. All accommodations will follow the procedures as stated in Article 1-110 of the Student Code (http://studentcode.illinois.edu/article1_part1_1-110.html). To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES you may visit 1207 S. Oak St., Champaign, call 333-4603 (V/TTY), or e-mail a message to disability@illinois.edu.

Code of Civil Class Conduct:
Students are expected to conduct themselves in accordance with the campus Student Code: https://studentcode.illinois.edu. As a reminder, the Campus Integrity Statement states: “The University of Illinois at Urbana-Champaign expects its faculty, staff, students and guests to conduct themselves in accordance with the community values of civility, respect, and honesty; to maintain the highest level of integrity and exercise critical judgment in all dealings, decisions and encounters; and to maintain and strengthen the public’s trust and confidence in our institution.” You will receive three written warnings if your language and comments are divisive or offensive. After these warnings you will receive a 0 on the participation grade for the session in which your comments are deemed inappropriate for the third time (warning). A fourth written warning will result in your dismissal from the course. What does it mean to be divisive or offensive? The list includes but is not limited to: personal attacks, false statements with no basis in fact, demeaning someone's experience, belittling language, broad generalizations and stereotyping, amongst others. If you cannot find a credible source to support something you are trying to state as a scientific finding, it is likely in this category.

Academic Integrity is essential to maintaining a learning environment that promotes excellence. We expect that all students will complete all academic and scholarly assignments with fairness and honesty. We adhere to the academic misconduct guidelines outlined by the Student Code of
Conduct and will report any suspected academic misconduct using the FAIR system. Please see [http://studentcode.illinois.edu/article1_part4_1-402.html](http://studentcode.illinois.edu/article1_part4_1-402.html) for additional details. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact Steve Long.

**Course schedule – TBD in discussion with the participants**