

IB 290 Introduction to Undergraduate Research in Integrative Biology

8 Weeks

2 Credit Hours

Ken N. Paige, Professor and Course Coordinator

School of Integrative Biology

Office: Room 481, Morrill Hall

505 S. Goodwin, Urbana

Office hours: by appointment, email: kpaige@illinois.edu

Course Goals:

1. Introduce you to the practice of scientific research through “hands-on” experience and direct faculty interaction.
2. Expose you to the diversity of research topics, methods and careers in Integrative Biology.
3. Practice the steps involved in devising, planning, executing and presenting a scientific research project.
4. Follow the path of knowledge generation, from the research project to the primary literature to the textbook and society.

Seminar: Mondays 4-5 pm

- We will meet weekly and have directed discussions focused on the various aspects of the research process.
- Attendance is required at all zoom sessions. If you have a conflict with any of these sessions, contact the course coordinator as soon as possible.

Research

- Each student will be assigned to a faculty advisor. Students will work three hours each week on the research project, and have regular contact with their faculty advisor. The organization of research roles in each team is at the discretion of the research advisor.
- We will make every effort to match you with the faculty advisor of your choice, but it is likely that some students will not be matched with their top choice.
- Research teams will present their research results in a symposium on December 7, from 4-5:15pm. Each presentation will last 12 minutes, and will be followed by 3 minutes for questions from students and faculty.

Emergencies

General Emergency Response Recommendations

[Run>Hide>Fight Video](#)

[Building Emergency Exits](#)

Academic Integrity

[According to the Student Code, `It is the responsibility of each student to refrain from](#)

infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions.' Please know that it is my responsibility as an instructor to uphold the academic integrity policy of the University, which can be found here: http://studentcode.illinois.edu/article1_part4_1-401.html.

Disability Accomodations

To ensure that disability-related concerns are properly addressed from the beginning, students with disabilities who require assistance to participate in this class are asked to talk to me as soon as possible.

Research Mentors

Marianne Alleyne - vanlaarh@illinois.edu
Carla Caceres - cecacere@illinois.edu
Janice Enos - jkkelly2@illinois.edu
Esther Ngumbi - enn@illinois.edu
Milton Tan - miltont@illinois.edu

Lecture

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|-----------------------|---|
| October 19 - | Course Introduction/Student Introductions
Reading Assignments/Questions |
| October 26 - | Student Project Selection
Discussion Assignments - Why do you want to do research?
Nature of Science
Science or Pseudoscience? |
| November 2 - | Discussion Assignments -
Reading/Critiquing Scientific Literature
Tips on scientific writing |
| November 9 - | Discussion of Groups Research, Interaction with your Mentor
When Problems Arise
Information for a Reference Letter |
| November 16 - | Grants and Fellowships – Funding
Careers in the Biological Sciences - Discussion |
| November 21-29 | Fall Break |
| November 30 - | Giving a Scientific Presentation |

**December 7 - Research Group Powerpoint Presentations on Semesters
Research Projects**

Grading

Your grade in this course will be based on completion of pre-seminar worksheets, participation in seminar discussions, research participation and your research presentation. Further details about the assignments will be provided throughout the semester.

Assignment	Points	Final Grade	Course Points Earned
Worksheets	45	A	265-295
Discussion Participation	50	B	235-264
Research Participation	100	C	205-234
Research Presentation	100	D	175-204
Total	295	F	0-174