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UNIVERSITY OF WISCONSIN-MADISON

BioHouse Seminar, Fall 2023
INTEGSCI 110: Biology for the 21st Century

Monday 5:00-6:15pm
Location: Carson Gulley Center (Program Room, 2nd Floor)
1 credit, Fall Semester Seminar

Course Description

The purpose of this 1-credit seminar course is to introduce residents of the BioHouse Residential Learning Community to some of the many subdisciplines and careers in biology, to illustrate how biology can help solve society's pressing issues. Interaction with invited speakers offers opportunities to meet with faculty and staff scientists and connect with relevant campus resources and research opportunities. Participation in small groups in and out of class that include graduate student mentors fosters development of freshman skills in cooperative learning with their peers and visiting scientists, integrating information across disciplines, and communicating science. Each student will be required to attend weekly seminars, participate in the associated small group discussions, and prepare a short article and/or video and/or podcast at a "popular science" level about the research presented in one of the weekly seminars.

Course Prerequisites or Other Requirements

Open to BioHouse Residential Learning Community students only

Course Learning Outcomes

At the end of this course you should be able to:

1. Describe the breadth of biology and describe where biology can be studied at UW-Madison.
2. Describe how biology impacts your life and how it can improve society.
3. Describe the meaning and importance of integration across disciplines and scales in biology
4. Understand the importance of effectively communicating scientific information to non-scientists.
5. Identify your current interest(s) in biology and how you can get involved as an undergraduate.

Seminar Structure

For each seminar, there is a relevant assigned reading (as well as one "extra" for those students that are especially interested) that students should read before attending seminar. Seminar is structured to foster engagement with the presenters (see next page) and their material. Seven to eight students are seated at a table, each table also including one graduate student mentor. These smaller groups within the larger class can discuss together activities or questions posed by the presenter and questions they wish to pose. Mentors may assign students within their group specific assignments during a seminar such as (i) recorder of the group's comments, questioner about (ii) relationship of material to society's pressing issues or (iii) a critical point in the presentation or (iv) a presenter's career trajectory.

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Instructor and Contact Information

Dr. Jonathan Pauli
Russell Laboratories 221
jnpauli@wisc.edu

Graduate Student Mentors

Mentor	Program	Email
J	Plant Pathology	@wisc.edu
R	Forest and Wildlife Ecology	@wisc.edu
F	Plant Breeding & Plant Genetics	@wisc.edu
M	Forest and Wildlife Ecology	@wisc.edu
H	Agronomy	@wisc.edu
H	Environment and Resources	@wisc.edu
M	Freshwater and Marine Sciences	@wisc.edu
N	Integrative Biology	@wisc.edu
S	Wildlife Ecology	@wisc.edu

Office Hours

Meeting with the course instructor or your graduate student mentor will be by individual appointment. Please contact the individual directly to arrange a time to meet.

Presenters at BioHouse Seminars

Week	Date	Presenter, Department/Field/Institute	Other notes
1	Sept. 11	Get to know your mentor and group!	Introduction to course and approach
2	Sept. 18	Jonathan Pauli	Wildlife Ecology (Host: H's crew)
3	Sept. 25	John Hawks	Anthropology (Host: H's crew)
4	Oct. 2	Prashant Sharma	Zoology (Host: N's crew)
5	Oct. 9	Paul Sondel	Oncology/Pediatrics (F's crew)
6	Oct. 16	Francisco Peligri	Genetics (M's crew)
7	Oct. 23	Zuzana Burivalova	Forest Ecology (S's crew)
8	Oct. 30	Grad Mentor meeting	Organize with your mentor!
9	Nov. 6	Leslie Holland	Plant Pathology (J's crew)
10	Nov. 13	Katrina Forest	Bacteriology (Host: M's crew)
11	Nov. 20	**NO CLASS**	NA
12	Nov. 27	Grad Mentor meeting	Organize with your mentor!
13	Dec. 4*	BioHouse Staff	Final Exam Extravaganza, bring your notes Community dinner after seminar
14	Dec. 11	**NO CLASS – work day**	Last day to turn in your course assignments

*Also a community dinner. Seminar begins 5 pm, dinner begins 6:15 pm and ends around 7:15 pm.

Assessment (Grading)

Assessment is based on four activities, described below, which sum to 100 points:

1. Attendance (worth 24 points: 2 per session) is mandatory. Students should inform course instructors or mentor if they will miss a seminar. A student may request to receive an excused absence for an academic, religious or personal conflict. If students have exam conflicts with another class, they are expected to arrange an alternative exam time, per UW-Madison policy. A scheduled exam conflict is not an excused absence.
2. Participation in-class (worth 24 points: 2 per session). Students should participate in weekly in-class discussions. Students may be assigned to different roles in their discussion group each week. To receive full
   discussion points each week, students will need to contribute to the group discussion and complete the in-class task assigned to them by their graduate student mentor. Your graduate student mentor may provide more details about grading of in-class participation.
3. Participation out-of-class (worth 16 points). You should participate in at least two opportunities for out-of-class credit (@8 pts/opportunity), and submit the small assignment that goes along with each. These meetings are to provide assistance to you and special opportunities (e.g., attend the *Biology at Work* event on October 12).

4. Popular Science Communication assignment (worth 36 points). You will write an article, make a video, or create a podcast about the research related to one speaker presentation. Your goal is to write or create something that you communicate in a "popular science" style. Popular science pieces are intended for broad audiences, and should pair scientific research, methods, and concepts with language that is accessible to general audiences. You will do this by exploring additional research about the seminar speaker's topic. You should use a combination of information given by the speaker in seminar plus information you obtain from a literature search. Details about this assignment, and a rubric for its grading, are explained in an additional handout.

Assignment of grades based on total points:

100 - 91 = A	90 - 86 = AB	85 - 80 = B	79 - 75 = BC	74 - 65 = C	64 - 50 = D	<50 = F