Course Subject
Advanced Course in the Molecular Biosciences

Number
40385
BMOLCHEM914/BIOCHEM914/MM&I914/MICROBIO914

Title
The Practice of Science Communication: A Graduate Course in Bioscience Presentation, Rigor, and Reproducibility

Credits
1 credit

Course Designations and Attributes
Graduate Enrollment Required. Counts toward 50% graduate coursework requirement.
Required course for Ph.D. students in the Molecular Biosciences Training Grant Program. Open to other Ph.D. students in the biosciences with permission of instructor.

Meeting Time and Location
Course meets in both Fall and Spring Semesters on Fridays at 3:30 pm in Biochemistry 2131.

Instructional Mode
Face-to-Face

Specify how Credit Hours are met by the Course
This class meets one 50-minute class period each week over the fall/spring semesters and carries the expectation that students will work on course learning activities (primarily reading) for about 2 hours out of the classroom for every class period.

Instructor Title and Name
Professor Christina M. Hull

Instructor Availability
Office hours by appointment

Instructor Email/Preferred Contact
cmhull@wisc.edu

Teaching Assistant (N/A)
COURSE DESCRIPTION
During the fall semester, molecular biosciences trainees who have not achieved dissertator status will present seminars based primarily on literature related to their research projects. During the spring semester, molecular biosciences trainees with dissertator status will give presentations based upon their own research. All semesters will include formal instruction by the course instructor on topics of scientific rigor and reproducibility as per requirements of the NIH for federally funded trainees. All student presentations will be evaluated using a predetermined rubric, and all students will be provided with both written and oral feedback on the quality and substance of their efforts.

REQUISITES
Graduate or professional standing

LEARNING OUTCOMES
- Identify and summarize key aspects of scientific rigor and reproducibility, including determination of sample size, statistical significance, measures of outliers, and experimental replicates.
- Describe the features of high quality presentations and best practices in scientific data/information interpretation.
- Apply and demonstrate best practices in the effective presentation of complex data/information to diverse scientific audiences.

GRADING
Grading is based on an A-F system. Quality of presentations (1/3), attendance (1/3), and participation (1/3) are all part of determining course grades.

RULES, RIGHTS & RESPONSIBILITIES
Every member of the University of Wisconsin-Madison community has the right to expect to conduct his or her academic and social life in an environment free from threats, danger, or harassment. Students also have the responsibility to conduct themselves in a manner compatible with membership in the university and local communities. See Rules, Rights and Responsibilities.

ACADEMIC INTEGRITY
By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison’s community of scholars in which everyone’s academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/.
ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES
The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA. http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php

DIVERSITY & INCLUSION
Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world. https://diversity.wisc.edu/