

University of Rhode Island; Department of Chemistry
CHM 500: Chemical Safety and Research Ethics
Spring 2022; M 1:00-1:50, Beupre 215

Course Instructor	Prof. Kiesewetter 325F Beupre mkiesewetter@uri.edu
Office Hours	by appointment
Texts (suggested)	Safety in Academic Chemistry Laboratories 8TH EDITION BEST PRACTICES FOR FIRST- AND SECOND-YEAR UNIVERSITY STUDENTS Scientific Integrity: Text and Cases in Responsible Conduct of Research, Macrina, F. L., 3rd Ed., ASM Press, 2005; ISBN: 1555813186, ISBN-13: 978-1555813185
Course Goals and Outcomes	The goal of this course will be to prepare students for their graduate and postgraduate careers by teaching them how to safely work in a research laboratory containing a variety of physical and chemical hazards, how to responsibly and ethically perform research, and how to recognize and avoid all forms of plagiarism. Topics will include chemical hygiene and safety, research ethics, and scientific misconduct.
Course Policies	Evaluations are directly related to presentations made during class, and attendance is required. There are no makeups. Expectations for presentations and evaluations are detailed below. All graded work should be performed individually. Cheating or plagiarism on a graded assignment will result in a zero for that evaluation and possible referral to the Dean and failure of the course. Students are expected to follow the University policy of ACADEMIC HONESTY and all other University policies.
COVID-19	Facemasks will be required for the duration of the course. If a student is experiencing COVID-19 symptoms, they should not come to class, report to Health Services and get a COVID test. Students who miss a graded opportunity as a result of a positive COVID test will receive an alternative assignment. Online classes may be required in unusual circumstances or if the University shifts to remote instruction.
Grading	Student grades will be based on participation (100 points) and a safety presentation (100 points) and an ethics presentation (100 points). Final grades will be determined by a scale no stricter than >90% A, >80% B, >70% C, >60% D. Students may request a re-grade on any evaluation for up to 1 week from when the evaluations are returned.

Participation (100 pts total)

The course is constructed as a discussion course regarding issues of safety and ethics. Student attendance and participation is expected. Say something each class period.

Presentation (2x 100 pts)

Every student will be responsible for delivering one presentation in the area of *safety* AND one presentation in the area of *ethics*. The topics of the presentations are your choosing. You must have your topic approved by the instructor 1 week ahead of time. The presentations should use powerpoint or equivalent and be 10-15 minutes in length. The presentations should include 3-4 slides on accident/ethics issue, 1-2 slides on steps that could have been taken to prevent the accident/ethics issue. Non-presenters are required to participate during these presentation discussions.

CHM 500 Course Schedule

1/24 Introduction, Being safe in the laboratory
1/31 Your responsibility for Safety, Guide to chemical hazards
2/7 Recommended laboratory techniques, safety equipment and emergency response
2/14 no discussion today – work on presentations
2/21 **URI no classes**
2/28 Safety Presentations
3/7 Safety Presentations
3/14 **spring break**
3/21 Safety Presentations
3/28 Ethics and the Scientist
4/4 Authorship and Peer Review, Collaborations
4/11 Research data, Intellectual Property, Scientific Record Keeping
4/18 Ethics Presentations
4/25 Ethics Presentations
5/2 Ethics Presentations

CHM 500 Presentation Evaluation Rubric

Presenter:

Presentation evaluation criteria:

1. _____ Timing (20 points): Presentation plus discussion should be 10-15 minutes total. A thought provoking presentation will require about 5 minutes for questions/discussion.
2. _____ Slides (20 points): Slides are prepared in Powerpoint (or similar). Use of figures is appropriate (no unused figures, no 'missing' figures). The presentation is constructed appropriately (e.g. logical organization).
3. _____ Content (20 points): Student demonstrates mastery of their topic through presentation and discussion. Student should be able to discuss the topic and field reasonable questions.
4. _____ Professionalism, Delivery and Overall Impressions (20 points): Student treats this like a professional talk. If in doubt, treat this like a job interview.
5. _____ Proper use of citations and referencing (20 points):