Instructor: Professor Robert Cohen *Office hours and location:* Immediately after class in A/Z E210 or by appointment *E-mail:* bob.cohen@colostate.edu

Class hours & location: Classes will meet in the 1^{st} half of the semester in A/Z E210 on Thursdays from 10:00 – 11:40 AM. The first class meeting is on Jan. 20.

Course description: The objective of this course is to introduce students majoring in biochemical science to concepts and practices that underlie responsible — and irresponsible — conduct in modern scientific research. The course will begin with a brief look at how in the late 20th century the U.S. government became interested in the issue of fraud in science, and how those investigations evolved into a formal definition of research misconduct and requirements among researchers for Responsible Conduct in Science ("RCR") training. Because the public's perception of science and scientists has played a major role in the development of RCR, the class will discuss several examples of (mis)conduct in science that will be drawn from the popular press. Among topics to be discussed are actions that have been taken in response to allegations of misconduct; these discussions will include cases where those actions appear to indicate government (or university!) overreach. Key issues commonly encountered by researchers include data and resource sharing, confidentiality, authorship, and reviewing papers and grants; these will be discussed together with consideration of the many conflicts of interest — both real and perceived — encountered in the course of doing research. Finally, if time permits, the class will discuss the concept of "forbidden knowledge" in the context of responsible conduct of research.

Outcomes: Students in BC360 are expected to become familiar with RCR practices and responsibilities, and to develop an appreciation of the motivations and controversies involved.

Assessment: Students will study accounts of cases that exemplify important issues in the conduct of scientific research. These will be discussed and analyzed in class, in quizzes, and in written assignments.

Grading: Students will have in-class quizzes (40% total grade) to assess how well they have understood assigned material (readings or videos); groups of 3-4 students will prepare brief "position papers" to be presented in class (20% total grade); take-home essay assignments will comprise 40% of the final grade. There will be no final exam.

Text: There is no required text for this course. Some material will be posted on the Canvas system, and students are expected independently to seek out other sources as necessary.

Tentative schedule	
Date	Торіс
1/20	Course Introduction; FFP and RCR; ASBMB Code of Ethics
1/27	The Baltimore Case
2/03	The Baltimore Case – Case Closed; Distinguishing The Crooks from The Jerks
2/10	Giving Credit Where Credit is Due
2/17	Plagiarism
2/24	Openness in Academia; Universities and Intellectual Property
3/03	Openness and Forbidden Knowledge; Student Presentations
3/10	More Student Presentations

Other: Use of cell phones during class is prohibited.

The University Administration has requested that the following text be added verbatim to the Course Syllabus:

Important information for students:

Masks are required inside university buildings. You must also meet university vaccine or exemption requirements.

All students are expected and required to report to the COVID Reporter

(<u>https://covid.colostate.edu/reporter/</u>) when:

- You suspect you have symptoms of COVID, regardless of whether or not you are vaccinated and even if your symptoms are mild
- You have tested positive for COVID through a non-CSU testing site, such as home test or test at a pharmacy
- You believe you may have been exposed to COVID go to the COVID Reporter and follow the guidance under "I believe I have been in close contact with someone who has COVID-19." This guidance will depend upon your individual circumstances

You will not be penalized in any way for reporting symptoms or concerns.

Do not ask me as your instructor to report for you. It is your responsibility to report through the COVID Reporter promptly.

As your instructor I may not ask you about vaccination status or if you have COVID but you may freely volunteer to send me information from a public health official - if you have been asked to isolate or quarantine.

When you complete the COVID Reporter, the CSU Public Health office is notified. Once notified, that office will contact you and, depending upon each situation, will conduct contact tracing, initiate any necessary public health requirements and notify you if you need to take any steps.

If you do not have internet access to fill out the online COVID-19 Reporter, please call (970) 491-4600. For the latest information about the University's COVID resources and information, including FAQs about the spring semester, please visit the **CSU COVID-19 site** <u>https://covid.colostate.edu/</u>.