

## **Syllabus, Philosophy 196R: Research Integrity, California State University Sacramento**

Section 1; Douglas Hall 110, Fridays 1-4pm (September 8-October 13)

**Instructor:** Kyle Swan. Contact via Blackboard "Send a message"—I respond quickly weekdays 9am-5pm; messages sent other times get replies the next business day. I keep regular office hours Mondays and Wednesdays 10-12pm; other contact options include email ([kyle.swan@csus.edu](mailto:kyle.swan@csus.edu)), phone (916.278.2474) or office appointment outside my regular office hours (email to set one up in 3030 Mendocino Hall).

**Catalogue Description:** "Basic regulatory and ethical requirements for doing research. Topics covered include protection of human subjects, data management, authorship, peer review, mentoring, animal experimentation, conflict of interest, and collaborative research."

**Textbook:** *On Being a Scientist: A Guide to Responsible Conduct of Research*, 3<sup>rd</sup> edition (National Academies, 2009). Free PDF is available online. Other readings will be made available in Blackboard.

**Technology Requirements:** Students must have reliable access to BlackBoard.

### **Learning Objectives:**

- (1) Identify, define, and explain various rules, regulatory systems, and resources available to ensure responsible conduct of research.
- (2) Explain and apply ethical decision-making in a variety of professional research settings, from a variety of perspectives (as researcher, peer, reviewer, etc.).
- (3) Apply principles of RCR/RI to specific cases of misconduct.
- (4) Assess and evaluate conditions which enable or impede responsible conduct of research in a variety of professional research settings.

### **Universal Accessibility**

This course and all material have been designed for universal access. If you have difficulty accessing any of the material, please let me know at your earliest experience of difficulty.

Also, this course has been designed to facilitate accommodation for specific disability needs. If you have a documented disability (visible or invisible) and require accommodation for assignments, tests, course material, etc., please let me know *the end of the FIRST week of semester* so that arrangements can be made. Failure to notify and consult with me by this date may impede my ability to offer you the necessary accommodation and assistance in a timely fashion. Also be sure to consult with the Services to Students with Disabilities (Lassen Hall 1008, or <http://www.csus.edu/sswd/>) to learn what other campus services and accommodation options are available for you.

Students with other types of accommodation requirements, such as English as a second language, are invited to discuss accommodations with the instructor to facilitate understanding and the best learning experience for all. All information will remain confidential. ESL students are advised to make use of the University Writing Center (Calaveras Hall 128, <http://www.csus.edu/writingcenter/>).

**Academic Honesty:** Students are required to know the policy, and to ensure their compliance with it. Violations of the university policy on Academic Honesty will not be tolerated. Any violations will be penalized with an F in the course, and will be reported to the University Student Conduct Officer for further administrative sanction. <http://www.csus.edu/umanual/student/STU-0100.htm>.

**Classroom Etiquette:** Except for the times they are actually being used for work in this course, all laptops, cell phones, pagers, and text messengers should be silenced before class begins, and should be stored in a place where the instructor and the other students cannot hear them or see them.

**Policy Regarding Late Submissions:** Due to the shortened timeline for this course, there will be no exceptions made for late submissions. All assignments are due at the time indicated in the assignment. Late submissions will be subject to a 20% grade reduction per calendar day late.

**Grading System:** Credit-No Credit. To receive credit, students must submit all required work and take the Final Exam. Failure to complete all the required coursework will result in No Credit being issued.

**Required Assignments:** Satisfactory completion of the course involves at least one practice quiz attempt scoring above C- for each module, responding to the discussion prompt and one peer for each module, attendance at each weekly session, and posting a reflection for each case covered in-class for each module AND completing the certificate exam at CITI:

- 1. Pre-class practice quizzes in Blackboard:** students must score above C- for each module.
- 2. Pre-class discussion board in Blackboard:** students must make one original post and one reply to a classmate for each module.
- 3. In-class Attendance:** students must arrive on time and stay for the duration of the Friday meeting (1:00 to 4:00 PM) for each module.
- 4. In-class Case Analyses:** Students will complete and submit weekly case-analyses, topically distinct, applying RCR techniques to specific cases, based on assigned course material and in-class discussion.
- 5. Final Examination:** A passing score on the CITI exam (available online; links available in Blackboard). This completes the student's assessment for the course and provides students with a 3 year RCR/RI certification from CITI. (No cost to students, CSUS is a subscriber member of CITI.)

#### Course Schedule:

Friday Meeting Dates	Course Topics and Learning Objectives for this Weekly Module:	Read / Watch / Complete, <i>before class meeting begins for modules 1 through 4:</i>
September 8	<b>Module 0</b>  <b>Orientation / The "Big Picture"</b> <ul style="list-style-type: none"> <li>Recognize and explain the role and value of the researcher in society.</li> <li>Identify the key features of responsible conduct of research.</li> <li>Explain the value of ethics to the research project.</li> <li>Understand the course requirements and structure.</li> <li>Create my CITI profile for Undergraduate/Master's Students.</li> </ul>	Read: <i>On Being a Scientist</i> [henceforth OBS], 1-3, "Introduction to the Responsible Conduct of Research"  Read: OBS, 48-50, "The Researcher in Society"  Watch: video(s) in BlackBoard.  Complete: practice quiz online in BlackBoard.  Complete:

		discussion board original post AND comment on a classmate in BlackBoard.
September 15	<b>Module 1</b>  <b>1.1 Data Management</b> <ul style="list-style-type: none"> <li>Recognize both the scientific and legal-regulatory approaches to the definition and classification of data, and the implications of that classification.</li> <li>Appreciate the differences between proper and improper methods for collection and selection of data, and the importance of having sufficient methodological skills.</li> <li>Become familiar with the appropriate technical methods for storage and protection of data, and the requirements for retention or destruction of data.</li> <li>Appreciate the difference between proper and improper methods for data analysis and presentation, and the importance of having sufficient methodological skills.</li> <li>Describe what is required, recommended, discouraged and prohibited with respect to data publication.</li> <li>Recognize the obligations and limitations on data sharing, depending on ownership.</li> </ul> <b>1.2 Conflict of Interest</b> <ul style="list-style-type: none"> <li>Define conflict of interest.</li> <li>Articulate why it is important to identify conflicts of interest.</li> <li>Describe different types of conflicts of interest.</li> <li>Articulate why it is imperative to manage conflicts of interest.</li> <li>Identify issues relating to an institutional conflict of interest.</li> <li>Explain why an Institutional Review Board (IRB) member can have a conflict of interest.</li> <li>Understand government policies relating to conflicts of interest.</li> <li>Describe conflict of interest policies from institutions and professional organizations.</li> </ul>	Read: OBS, 8-11, "The Treatment of Data"  Read: OBS, 43-7, "Competing Interests, Commitments, and Values"  Watch: video(s) in BlackBoard.  Complete: practice quiz online in BlackBoard.  Complete: discussion board original post AND comment on a classmate in BlackBoard.
September 22	<b>Module 2</b>  <b>2.1 Authorship</b> <ul style="list-style-type: none"> <li>Identify the three best-known transgressions of scholarly communication - fabrication, falsification, and plagiarism.</li> <li>Recognize the criteria for authorship.</li> <li>Recognize the responsibilities of authors.</li> </ul> <b>2.2 Peer Review</b> <ul style="list-style-type: none"> <li>Recognize the importance of a responsible peer review.</li> <li>Characterize the role of a peer reviewer in assessing a paper or grant application.</li> <li>Examine the major ethical issues surrounding publication and peer review.</li> </ul>	Read: OBS, 12-14, "Mistakes and Negligence"  Read: OBS, 15-18, "Research Misconduct"  Read: OBS, 19-23, "Responding to Suspected Violations of Professional Standards"

	<ul style="list-style-type: none"> <li>Describe some of the ways to deal with controversies or conflicts that might arise in the peer review process.</li> <li>Describe the role of editor and peer reviewer.</li> </ul>	<p>Watch: video(s) in BlackBoard.</p> <p>Complete: practice quiz online in BlackBoard.</p> <p>Complete: discussion board original post AND comment on a classmate in BlackBoard.</p>
September 29	<p><b>Module 3</b></p> <p><b>3.1 Human Subjects Research</b></p> <ul style="list-style-type: none"> <li>Identify ethical principles related to the regulation of human subject research.</li> <li>Discuss U.S. regulations governing the use of human subjects in research.</li> <li>Describe the roles of the Institutional Review Board (IRB) and the function of the Federalwide Assurance (FWA).</li> <li>Recognize the ethical responsibilities of the researcher/investigator working with human subjects, including identifying the different categories of vulnerable subject.</li> <li>Describe how to report non-compliance with federal regulations and policies.</li> </ul> <p><b>3.2 Animal Subjects</b></p> <ul style="list-style-type: none"> <li>Identify ethical perspectives on animal research.</li> <li>Discuss U.S. regulations governing animal research.</li> <li>Describe the roles of the Institutional Official (IO), the Institutional Animal Care and Use Committee (IACUC), and the Attending Veterinarian (AV) in animal care and use programs.</li> <li>Recognize the ethical responsibilities of researchers working with laboratory animals.</li> <li>Describe how to report animal abuse and non-compliance with federal regulations and policies.</li> </ul>	<p>Read: OBS, 24-27, "Human Participants and Animal Subjects in Research"</p> <p>Read: OBS, 28, "Laboratory Safety in Research"</p> <p>Watch: video(s) in BlackBoard.</p> <p>Complete: practice quiz online in BlackBoard.</p> <p>Complete: discussion board original post AND comment on a classmate in BlackBoard.</p>
October 6	<p><b>Module 4</b></p> <p><b>4.1 Mentoring</b></p> <ul style="list-style-type: none"> <li>Clarify the roles and responsibilities of mentors and those that they mentor.</li> <li>Provide guidance to assist all who participate in research to avoid problems and to optimize the mentoring experience.</li> <li>Describe barriers to mentoring, particularly for women and minority researchers, and potential solutions to these barriers.</li> <li>Describe the importance of mentoring and the way in which mentoring occurs.</li> </ul>	<p>Read: OBS, 4-7, "Advising and Mentoring"</p> <p>Read: OBS, 29-34, "Sharing of Research Results"</p> <p>Read: OBS, 35-38, "Authorship and the Allocation of</p>

	<p><b>4.2 Collaborative Research</b></p> <ul style="list-style-type: none"> <li>• Recognize the increased tendency toward collaborative research in many fields.</li> <li>• Identify the pitfalls that may occur in collaborative research.</li> <li>• Gain familiarity with ways to enhance good collaborative research.</li> <li>• Describe the institutional processes involved in collaborative research.</li> <li>• Examine some of the ethical considerations in collaborative research.</li> <li>• Appreciate the resources available to deal with collaborative research.</li> </ul>	<p>Credit.”</p> <p>Read: OBS, 39-42, “Intellectual Property”</p> <p>Watch: video(s) in BlackBoard.</p> <p>Complete: practice quiz online in BlackBoard.</p> <p>Complete: discussion board original post AND comment on a classmate in BlackBoard.</p>
No in-class meetings for week 5.	<p><b>Exam Week (for this 5 week rotation)</b></p> <p>During the “exam week” period you are required to take the exam and send me your confirmation of certification before I can give you a grade for the course.</p>	<p>Read: Nothing</p> <p>Watch: Nothing</p> <p>Complete: CITI exam</p>