

Responsible Conduct of Research GRAD 5000 Fall 2020

Course Coordinator

Dr. Mary Ann Allen

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Other important E-mail/URLs

CU RCR website: <https://www.colorado.edu/researchinnovation/rcr/training>

NIH Office of Research Integrity (ORI) website: <https://ori.hhs.gov>

Grade Check: Canvas

Days, Time, and Location

Wednesdays, 5:00 to 6:00 PM

Aug 26 - Dec 2, 2020

Lecture via Zoom

Weeks 2-7: <https://cuboulder.zoom.us/j/99486377169>, Password: RCR

Weeks 8-15: <https://cuboulder/zoom/us/j/99190873926>, Password: RCR

Purpose of the Course

The purpose of this course is to provide a comprehensive introduction to the ethical issues involved in the conduct of research. Granting agencies either already do or are considering enrollment in such a course as a requirement for trainees participating in research they fund.

Approach

The class will be taught primarily through reading, lectures and discussion groups. Each class will begin with a lecture on a specific research issue and this will be followed by small group discussions on the topic or some other related activity. ALL classes will be recorded.

Course Schedule

Date	Topic	Instructor
8/26/20	<i>Introduction – Why Does Responsible Conduct of Research Matter?</i>	Mary Allen
9/2/20	<i>Data Acquisition/Management</i> Discussion Leaders: Robin Dowell, Mary Allen, Mike Stallings	Mike Stallings
9/9/20	<i>Data Reproducibility</i> Discussion Leaders: Ed Chuong, Nausica Arnoult, Mary Allen, Andy Hoenger	Mary Allen
9/16/20	<i>Mentor/Trainee Issues</i> Discussion Leaders: Amy Palmer, Kristi Anseth, Ken Krauter, Mary Allen	Ken Krauter
9/23/20	<i>Research Misconduct – A Guide</i> Discussion Leaders: Mary Allen, Isabel Weber, Andrew Goodwin, Greg Odorizzi	Isabel Weber
9/30/20	<i>Research Misconduct – An Example</i> Discussion Leaders: Natalie Ahn, Mary Allen, Tin Tin Su, Chris Bowman	Mary Allen
10/7/20	<i>Cringe Moments</i> Discussion Leaders: Kirsi Aulin, Gia Voeltz, Mary Allen, Yem Fong	Kirsi Aulin, Yem Fong
10/14/20	<i>Collaborative Research</i> Discussion Leaders: Michael Stowell, Zoe Donaldson, Robin Dowell, Mary Allen	Robin Dowell
10/21/20	<i>Intellectual Property</i> Discussion Leaders: Mary Allen, Brynmor Rees, Michael Shirts, Michael Stowell	Brynmor Rees
10/28/20	<i>Lab Safety</i> Discussion Leaders: Joel Kralj, Mary Allen, Jeff Cameron, Sara Sawyer	Sara Sawyer
11/4/20	<i>Authorship, Publications, and Peer Review Issues</i> Discussion Leaders: Doug Seals, Dylan Taatjes, Mary Allen, Joel Kaar	Doug Seals
11/11/20	<i>Protection of Human Subjects</i> Discussion Leaders: Leslie Leinwand, Misty White, Mary Allen	Misty White
11/18/20	<i>Conflict of Interest</i> Discussion Leaders: Mary Allen Michael Stowell, Samantha Hertzog, Jerome Fox	Samantha Hertzog
11/25/20	<i>Protection of Animal Subjects</i> Discussion Leaders: Mary Allen, Brad Olwin, Marissa Ehringer	Marissa Ehringer
12/2/20	<i>The Scientist in Society</i> Discussion Leaders: Tom Cech, Justin Brumbaugh, Mary Allen, Deborah Wu	Tom Cech

Questions

You will be expected to have read the relevant text material PRIOR to the class session and to have prepared at least one question over the material. This question is to both be submitted via Canvas to a discussion page prior to the class and brought to the discussion session

Grades

This class can be taken Pass/Fail or for a letter grade. This class will not count towards a degree if you take the Pass/Fail method. If you take Pass/Fail method, you must Pass for this class to fulfill your NIH or NSF requirements. If you take the graded method you must get a 70% or better for this class to fulfill your NIH or NSF requirements

Approximate grading scale

Discussions

	Number of assignments of this type	Total percentage	Percent per assigned
Attendance and Misc	~15-20	5%	N/A
Quizzes	14	20%	1.4%
Questions	14	5%	0.7%
Discussions	14	60%	4.3%
Essay	2	10%	5.0%

For each class, there will be a lecture and a small group discussion.

Classroom small group discussion rules:

- Respect your small group members. Everyone talks, everyone is equal.
- Don't point fingers or name names. This is not a complain about my lab session.
- Do call out improper conduct when you see it. Gentle peer correction works better than reporting to a superior
- Grading: During or after class (within 24 hours), you will need to submit 2 sentences to your Canvas small group discussion to prove you were present. You will submit both 1) a one sentence summary of the discussion and 2) a comment that you made in the live discussion. Your small group is responsible for watching for falsification statements.
- I don't grade you on the content of your comments. I only grade based on the fact that you have made comments

Essays

In the semester, you will turn in two half page Case study essays.

- First, you will interview another researcher about one of the topics we cover in this course.
Ask them to tell you a story from there past that illustrates why this topic is important to understand. For example, you could ask someone if they have ever suspected misconduct. Or you could ask them if they have ever had a disagreement about authorship on a paper. You could ask them if they have ever personally seen animal or human mistreatment in a research project.

- Second, write a half page story about what happened to the person you interview. This story should include no personal details

My recommendation is to follow this guide when writing this essay.

<http://www.formalifesciencemarketing.com/whitepapers/8-fundamental-case-study-principles/> (<http://www.formalifesciencemarketing.com/whitepapers/8-fundamental-case-study-principles/>)

The story does not have to have a happy ending! A lot of responsible conduct of research case studies are grey. Case study essays in which we don't know who was right or wrong are great!

- The case studies will be submitted via Canvas

Late work and Missing Classes

If you miss class you will need to make up the time

Watch the class lectures

<https://cuclasscapture.colorado.edu/Mediasite/Catalog/Full/30050d0311e545678bfeafe5f9be4d2c21> (<https://cuclasscapture.colorado.edu/Mediasite/Catalog/Full/30050d0311e545678bfeafe5f9be4d2c21>) (<https://cuclasscapture.colorado.edu/Mediasite/Catalog/Full/8059f4b5a1da4e3081a5d6f4c97f49d221>) (<https://cuclasscapture.colorado.edu/Mediasite/Catalog/Full/03154bd8a29f4cf2803268620055f97f21>)

Write a paragraph about the lecture and post it to your small group discussion for that week.

Respond to EVERY other comment posted in the discussion. The Response can be a question or a statement.









Quizzes









There will be a 10% penalty for each week the quiz is late. The "week" begins as class begins.









Questions









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






Course Summary:










Date	Details
	<p> In class discussion summary: Meet your group (https://canvas.colorado.edu/courses/67390/assignments/825573)</p>
	<p> Metadata (you get 100% for completeing) (https://canvas.colorado.edu/courses/67390/assignments/825532)</p>
Wed Sep 2, 2020	<p> Question for the speaker or disscussion group about the reading. Data Acquisition/Management (https://canvas.colorado.edu/courses/67390/assignments/825570)</p>
	<p> Weekly Quiz: Data Acquisition/Management (https://canvas.colorado.edu/courses/67390/assignments/825539)</p>
	<p> In class discussion summary: Data Acquisition/Management (https://canvas.colorado.edu/courses/67390/assignments/825565)</p>
Wed Sep 9, 2020	<p> Question for the speaker or disscussion group about the reading. Data Reproducibility (https://canvas.colorado.edu/courses/67390/assignments/825568)</p>
	<p> Weekly Quiz: Data Reproducibility (https://canvas.colorado.edu/courses/67390/assignments/825529)</p>
Wed Sep 16, 2020	<p> In class discussion summary: Data reproducibility (https://canvas.colorado.edu/courses/67390/assignments/825573)</p>

Date	Details
	<p>/67390/assignments/825560</p> <hr/> <p> Question for the speaker or discussion group about the reading, Mentor/Trainee Issues (https://canvas.colorado.edu/courses/67390/assignments/825566) due by 5pm</p> <hr/> <p> Weekly Quiz: Mentoring (https://canvas.colorado.edu/courses/67390/assignments/825536) due by 5pm</p>
	<p> In class discussion summary: Mentor/Trainee Issues (https://canvas.colorado.edu/courses/67390/assignments/825571) due by 5pm</p> <hr/> <p> Question for the speaker or discussion group about the reading, Research Misconduct-A guide (https://canvas.colorado.edu/courses/67390/assignments/825557) due by 5pm</p>
Wed Sep 23, 2020	<p> Weekly Quiz: Research Misconduct a guide (https://canvas.colorado.edu/courses/67390/assignments/825543) due by 5pm</p> <hr/> <p> pre-Essay 1-revision group (https://canvas.colorado.edu/courses/67390/assignments/825564) due by 11:59pm</p>
	<p> In class discussion summary: Research Misconduct-A guide (https://canvas.colorado.edu/courses/67390/assignments/825558) due by 5pm</p> <hr/> <p> Question for the speaker or discussion group about the reading, Research Misconduct-An example (https://canvas.colorado.edu/courses/67390/assignments/825575) due by 5pm</p>
Wed Sep 30, 2020	

Date	Details
	<p> Weekly Quiz: Research Misconduct-an example https://canvas.colorado.edu/courses/67390/assignments/825542</p> <p style="text-align: right;">due by 5pm</p>
	<p> Essay 1 https://canvas.colorado.edu/courses/67390/assignments/825578</p> <p style="text-align: right;">due by 11:59pm</p>
	<p> In class discussion summary: Research Misconduct-An example https://canvas.colorado.edu/courses/67390/assignments/825574</p> <p style="text-align: right;">due by 5pm</p>
Wed Oct 7, 2020	<p> Question for the speaker or discussion group about the reading. Cringe moments https://canvas.colorado.edu/courses/67390/assignments/825577</p> <p style="text-align: right;">due by 5pm</p>
	<p> Weekly Quiz: Cringe Moments https://canvas.colorado.edu/courses/67390/assignments/825530</p> <p style="text-align: right;">due by 5pm</p>
	<p> In class discussion summary: Cringe moments https://canvas.colorado.edu/courses/67390/assignments/825576</p> <p style="text-align: right;">due by 5pm</p>
Wed Oct 14, 2020	<p> Question for the speaker or discussion group about the reading. Collaborative Research https://canvas.colorado.edu/courses/67390/assignments/825548</p> <p style="text-align: right;">due by 5pm</p>
	<p> Weekly Quiz: Collaboration https://canvas.colorado.edu/courses/67390/assignments/825546</p> <p style="text-align: right;">due by 5pm</p>

Date	Details	
Wed Oct 21, 2020	 In class discussion summary: Collaborative Research (https://canvas.colorado.edu/courses/67390/assignments/825550)	due by 5pm
	 Question for the speaker or discussion group about the reading. Intellectual Property (https://canvas.colorado.edu/courses/67390/assignments/825554)	due by 5pm
	 Weekly Quiz Intellectual Property (https://canvas.colorado.edu/courses/67390/assignments/825544)	due by 5pm
Wed Oct 28, 2020	 In class discussion summary: Intellectual Property (https://canvas.colorado.edu/courses/67390/assignments/825553)	due by 5pm
	 Question for the speaker or discussion group about the reading. Lab Safety (https://canvas.colorado.edu/courses/67390/assignments/825569)	due by 5pm
	 Weekly Quiz: Lab Safety (https://canvas.colorado.edu/courses/67390/assignments/825533)	due by 5pm
Wed Nov 4, 2020	 In class discussion summary: Lab Safety (https://canvas.colorado.edu/courses/67390/assignments/825561)	due by 5pm
	 Question for the speaker or discussion group about the reading. Authorship, Publication and Peer Review Issues (https://canvas.colorado.edu/courses/67390/assignments/825572)	due by 5pm

Date	Details
	<p> Weekly Quiz: Authorship, Publication and Peer Review Issues (https://canvas.colorado.edu/courses/67390/assignments/825540)</p> <p style="text-align: right;">due by 5pm</p>
	<p> pre-Essay 2-revision group (https://canvas.colorado.edu/courses/67390/assignments/825563)</p> <p style="text-align: right;">due by 11:59pm</p>
	<p> In class discussion summary: Authorship, Publication and Peer Review Issues (https://canvas.colorado.edu/courses/67390/assignments/825562)</p> <p style="text-align: right;">due by 5pm</p>
Wed Nov 11, 2020	<p> Question for the speaker or discussion group about the reading. Protection of Human Subjects (https://canvas.colorado.edu/courses/67390/assignments/825556)</p> <p style="text-align: right;">due by 5pm</p>
	<p> Weekly Quiz: Human Subjects (https://canvas.colorado.edu/courses/67390/assignments/825541)</p> <p style="text-align: right;">due by 5pm</p>
	<p> Essay 2 (https://canvas.colorado.edu/courses/67390/assignments/825579)</p> <p style="text-align: right;">due by 11:59pm</p>
Wed Nov 18, 2020	<p> In class discussion summary: Protection of Human Subjects (https://canvas.colorado.edu/courses/67390/assignments/825555)</p> <p style="text-align: right;">due by 5pm</p>
	<p> Question for the speaker or discussion group about the reading. Conflict of Interest (https://canvas.colorado.edu/courses/67390/assignments/825567)</p> <p style="text-align: right;">due by 5pm</p>

Date	Details	due by 5pm
Wed Nov 25, 2020	 Weekly Quiz: COI (https://canvas.colorado.edu/courses/67390/assignments/825528)	due by 5pm
	 In class discussion summery: Conflicts of Interest (https://canvas.colorado.edu/courses/67390/assignments/825559)	due by 5pm
	 Question for the speaker or disscussion group about the reading, Protection of Animal Subjects (https://canvas.colorado.edu/courses/67390/assignments/825549)	due by 5pm
	 Weekly Quiz: Animal use (https://canvas.colorado.edu/courses/67390/assignments/825535)	due by 5pm
Wed Dec 2, 2020	 In class discussion summery: Protection of Animal Subjects (https://canvas.colorado.edu/courses/67390/assignments/825551)	due by 5pm
	 Question for the speaker or disscussion group about the reading, The Scientist in Society (https://canvas.colorado.edu/courses/67390/assignments/825547)	due by 5pm
	 Weekly Quiz: Scientist in Society (https://canvas.colorado.edu/courses/67390/assignments/825538)	due by 5pm
Fri Dec 4, 2020	 In class discussion summery: The Scientist in Society (https://canvas.colorado.edu/courses/67390/assignments/825552)	due by 5pm
	 RCR best and worst (https://canvas.colorado.edu/courses/67390/assignments/825545)	due by 5pm