Objectives:

The intent of this seminar-style course is to introduce graduate students and early career postdocs to the research process, the responsible conduct of research, and the MS and PhD degree processes in the Department of Atmospheric Science. Research topics will range from conceptual (developing research questions, time management) to practical (keeping research notebooks, laboratory safety) and ethical (data manipulation, intellectual property) considerations. This course is designed to satisfy federal agency requirements for face-to-face training in responsible conduct of research.

Texts:

For reading, distributed electronically:


AGU Professional Development website: https://webinars.agu.org/categories/professionaldevelopment/

Weekly PowerPoints and reading and discussion materials are posted in Dropbox: https://www.dropbox.com/sh/sb2wri46vk1qzac/AADAqypWpsu4WfEb15KeNEkMla?dl=0

Course Structure, Expectations, and Grading Criteria:

IMPORTANT: All students are expected to have completed the online RCR training course and the associated Mastery Quiz, at http://rcr.colostate.edu/training.html, prior to attending the first class.
Course material will be delivered in a lecture / discussion format, meeting for one 50-minute period each week. Lectures (.pptx or .pdf format) are posted on the class website. At least 2 hours of effort (2 hours per each hour of class time) outside of class each week are expected to complete readings and homework assignments. In particular, all students are expected to read assigned materials prior to the class time in which it will be discussed.

This class is graded on a satisfactory/unsatisfactory (S/U) basis. This is a discussion-based class and satisfies CSU and federal agency requirements for face-to-face training. As such, students will be graded based on their (mandatory) attendance and participation in class discussions. Students may have up to two excused absences from class, and should make arrangements with the instructor to make up any assignments and to ensure they are prepared for the next class.

**Academic Integrity:**

All students are subject to the policies regarding academic integrity found in Section 1.6 of the 2010 – 2011 General Catalog, found at [http://www.catalog.colostate.edu/Content/files/2012/FrontPDF/1.6POLICIES.pdf](http://www.catalog.colostate.edu/Content/files/2012/FrontPDF/1.6POLICIES.pdf), and the student conduct code ([http://www.conflictresolution.colostate.edu/conduct-code](http://www.conflictresolution.colostate.edu/conduct-code)). Other information on academic integrity can be found on the Learning@CSU website ([http://learning.colostate.edu/integrity/index.cfm](http://learning.colostate.edu/integrity/index.cfm)). Examples of academic dishonesty can be found in these sources. At a minimum, violations will result in a grading penalty in this course and a report to the Office of Conflict Resolution and Student Conduct Services.

**Special Needs:**

Please see the instructor during the first two weeks of the semester, if you have special learning needs that should be accommodated in this class, and refer to [http://rds.colostate.edu/csuinfo/accommodations.asp](http://rds.colostate.edu/csuinfo/accommodations.asp) for more information.
# ATS 693, Spring 2019

**Responsible Conduct of Research in Atmospheric Science**  
Fridays 10 – 10:50 PM  
ATS West 121

<table>
<thead>
<tr>
<th>Week</th>
<th>Discussion Topic</th>
<th>Accompanying Reading Assignment</th>
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| Jan 25 | Course overview  
Roles and responsibilities in academia                   | Bebeau et al., Developing a Well-Reasoned Response to a Moral Problem in Scientific Research |
| Feb 1  | Data and IP ownership and storage                          |                                                                                       |
| Feb 8  | Lab notebooks                                                | Bring to class: your notebook / record                                                  |
| Feb 15 | Plagiarism                                                  | Charlie West case; Roig article                                                       |
| Feb 22 | Research Misconduct                                         | Marty Brown case                                                                    |
| Mar 1  | Whistleblowing                                              | Bob Bailey case                                                                     |
| Mar 8  | Publishing Your Work                                        | Diane Archer case; https://webinars.agu.org/webinar/tips-successful-manuscript-submission/ |
| Mar 15 | Effective Oral Presentations  
(presented by Prof. Emily Fischer) | Bring to class: a hard copy of a slide you want to improve                      |
| Mar 22 | Spring Break                                                | Bring to class: a research idea / outline                                             |
| Mar 29 | Developing a Proposal / Prospectus                         |                                                                                       |
| Apr 5  | Conflict Resolution and Effective Communication  
(presented by Melissa Emerson, Student Resolution Center) |                                                                                       |
| Apr 12 | Preparing Research Budgets  
Financial Management & Fiscal Responsibility  
(presented with Shannon Irey, ATS) | Bring to class: your laptop, with the budget spreadsheet uploaded                   |
| Apr 19 | Export Controls and Related Issues  
(Presented by Dr. Scot Allen, OVPR) |                                                                                       |
| Apr 26 | Considering the World of Entrepreneurship  
(presented by Dr. Steve Albers, CSU Ventures) |                                                                                       |
| May 3  | Working with Industry  
(presented by Prof. Jeffrey Collett, ATS) |                                                                                       |
| May 10 | The Imposter Syndrome  
(presented by Prof. Sue van den Heever, ATS) |                                                                                       |