

University of Wyoming, Department of Atmospheric Science
ATSC 5018 Research Methods and Ethics
Fall Semester, 2017
Course Syllabus, Policies and Outline

1 Instructor

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Office Hours: Mon & Wed 1:30 – 3:00 PM

Tues 3:00 – 4:00 PM

Course Materials Website:

<http://www.atmos.uwyo.edu/~jfrench/teaching.html>

2 Course Goals and Objectives

Goal: Overarching goal of this class is to provide basic understanding of methods used in research and concepts ethical dilemmas within a research setting.

Objectives: Specific objectives of this course are as follows:

- Describe some types of ethical dilemmas in research and discuss appropriate course of action
- Investigate different research methods, describe how research is funded and disseminated
- Provide introductions to all students on their individual research topics

3 Course Prerequisites

none. This class is designed for first level graduate students in Atmospheric Science.

4 Grading

Grading is an S/U scale (no plusses or minus here!). Grading is based solely on attendance and class participation.

5 Textbook and supplementary material

No textbook. There is very little outside-of-class work expected of students in 5018. All course material will be provided in class by the instructor—except for the material to be used in the final student presentations during the last few weeks of class.

6 Overview of Policies

a. Attendance and Participation

Because grading (S/U) is based solely on attendance and participation, it is paramount that students attend class sessions. *However*, students will be excused, with prior notification, if they are participating in department-sponsored research or learning activity.

Students are encouraged to take advantage of opportunities offered by the department: flying on the UWKA, attending conferences, participating in field program. However—make sure you arrange ahead of time with your instructor if you will miss class.

b. Academic Honesty

“The University of Wyoming is built upon a strong foundation of integrity, respect and trust. All members of the University community have a responsibility to be honest and have the right to expect honesty from others. Any form of academic dishonesty is unacceptable to our community and will not be tolerated.” [excerpted from the UW General Bulletin] All persons should report suspected violations of standards of academic honesty to the instructor, department head, or dean. See UW Regulation 6-802, “Procedures and Authorized University Actions in Cases of Student Academic Dishonesty.” You can read this and all other University regulations at: <http://www.uwyo.edu/generalcounsel/index.html>

c. Disability Statement

If you have a physical, learning, or psychological disability and require accommodations, please let the instructor know as soon as possible. You must register with, and provide documentation of your disability, to University Disability Support Services (UDSS) in SEO, room 330 Knight Hall.

7 Schedule and Course Topics (*subject to change*)

Session 1, September 11 – Research Ethics: Office of Research Ethics – ‘The Lab’ interactive series

Session 2, September 18 – Research Ethics: Office of Research Ethics – ‘The Lab’ interactive series (*continued*)

Session 3, September 25 – Research Ethics: Office of Research Ethics – ‘The Lab’ interactive series (*continued*)

Session 4, October 2 – **NO CLASS**

Session 5, October 9 – Cognitive Bias

Session 6, October 16 – Overview of funding processes; peer-reviewed publications; critical review introductions – hand out manuscript for critical Review

Session 7, October 23 – critical paper review discussion

Session 8, October 30 – bibliographies, bibliographic files, Zotero

Session 9, November 6 – curve fitting, spectral analysis, error and uncertainty representation

Session 10, November 13 – TBD

Session 11, November 20 – Presenting research findings (oral presentations)

Session 12, November 27 – Preparing your research plan; Proposing research ideas

Session 13, December 4 – *Student Presentations*

Session 13, December 11 – *Student Presentations (cont)*