AT786 – Course Syllabus
Fall 2014

In-Class Meetings: M 1-1:50pm, ACRC Classroom (212B)
Make-up Classes: F 2-2:50pm (as necessary)
Instructor: Chris O'Dell, odell@atmos.colostate.edu
Office: 203 ACRC (on the atmospheric science campus)
Office Hours: Fridays 1-3pm or by appointment

Webpage: http://reef.atmos.colostate.edu/~odell/at786/index.html

Course Content and Goals

The purpose of this course is to introduce students to the Working Group 1 report from the Intergovernmental Panel on Climate Change (IPCC), "Climate Change 2013: The Physical Science Basis." This class will be student-led and consist of general discussions on each chapter in the ~1500 page document.

Upon completion of the class, students will:

- Have gained a strong working knowledge of the contents of the latest IPCC working group 1 report on the physical science basis of climate change.
- Have a sense of how the science of climate change has evolved over previous IPCC reports.
- Have a good idea of how the latest climate change science contributes
- Be able to discuss some of the nuances of the latest IPCC science with colleagues and other scientists.

References

IPCC, 2013: *Climate Change 2013, The Physical Science Basis* (Working Group 1 contribution to the IPCC's 5th Assessment Report):
http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf

Additional References will be posted to the course website as necessary.

Course Evaluation

- ***Leading Discussion on 1 Chapter***
  Students will be required to lead or co-lead the discussion of one chapter from the IPCC AR5 WG1 report, ideally as a powerpoint or PDF slideshow to the rest of the class. Because many chapters are large, and each class is only 50 minutes, students must focus on the most important and/or most interesting scientific findings in their chosen chapter. The longer chapters will be co-presented by two students.

- ***Preparing for and Participating in Class Discussions***
  In addition to leading the discussion on one IPCC WG1 chapter, students are expected to skim each week's chapter and come prepared to discuss its contents. As

the chapters are very long and detailed, students are not expected to read each chapter word-for-word. Skimming a chapter and understanding its main findings will generally suffice to enable meaningful participation in the discussion.

Grading Scheme

Presentation on one Chapter	50% of grade
Class Participation	50% of grade

This class is graded pass-fail. Students attending all classes (exceptions will be made with consent of instructor) and suitably preparing for and leading their individual chapter will achieve a passing grade.

Class Schedule

This class schedule is approximate and is subject to change.

Date	*Content*	*Leader(s)*
Aug 25	Intro + Chapter 1	O'Dell
Sep 1	Labor Day / No Class	
Sep 8	Ch. 2, Observations: Atmosphere&Surface (96 pp)	~2
Sep 15	Ch. 3, Observations: Ocean (62 pp)	~1
Sep 22	Ch. 4, Observations: Cryosphere (66 pp)	~1
Sep 29	Ch. 5, Paleoclimate (82 pp)	~1
Oct 6	Ch. 6, Carbon & Biogeochemical Cycles (106 pp)	~2
Oct 13	Ch. 7, Clouds & Aerosols (88 pp)	~2
Oct 20	Ch. 8, Radiative Forcing (82 pp)	~1
Oct 27	Ch. 9, Evaluation of Climate Models (126 pp)	~2
Nov 3	Ch. 10, Detection & Attribution of CC (86 pp)	~2
Nov 10	Ch. 11, Near-term Climate Change Projections (76 pp)	~1
Nov 17	Ch. 12, Long-term Climate Change Projections (108 pp)	~2
Nov 24	Ch. 13, Sea Level Change (80 pp)	~1
Dec 1	Ch. 14, Phenomena & Regional Climate Change (94 pp)	~2
Dec 8	TBD / Wrap-up / Course evaluations	
Finals Week	AGU – No Class	

Classroom Resources

For projecting a presentation (either powerpoint or PDF), students can either use the classroom's windows-based computer (which has internet access), or project off their own laptop. Their laptop may either be PC or MAC-based.

Honor Code

This course will adhere to the CSU Academic Integrity Policy as found in the General Catalog (http://www.catalog.colostate.edu/Content/files/2012/FrontPDF/1.6POLICIES.pdf) and the Student Conduct Code (http://www.conflictresolution.colostate.edu/conduct-code). 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.