

Grading

500 points Short written assignments (4, 50/150/150/150)

500 points Long written assignment (1)

500 points Exams (2, 250/250)

100 points Class participation (attendance + active participation)

1600 points total – Letter grade distribution to be determined at a later date and presented in class

The non-cumulative exams will be based on the lectures and focus on scientific concepts and earth system processes. This is a Comm-B course, for which you need to write about 35 pages (including revisions), present orally, participate in discussions, and learn to listen and read critically. The first three homework assignments will be 4-5 page response papers with assigned readings. For each assignment, you will receive written comments and for the 2nd assignment, an opportunity to revise your text with the help of Writing Fellows at the UW Writing Center (<http://www.wisc.edu/writing/>). For the fourth assignment, you will be divided into teams to debate global change topics of your choosing (e.g., the questions on page 1). These debates will be held near the end of the semester and you will write two page description of the topic and your contribution to the debate. The debate topics should be informed by the lecture contents.

The long paper provides an opportunity for more in-depth exploration of a global atmospheric change topic of interest to you and should be 10 pages long. Details on the scope and nature of this paper will be presented in class. You will meet with me to develop your paper's focus. The Writing Fellows will assist you in revising your text. Both your revision and final version count toward your total score. Honors students will give a 10 minute presentation on their final paper at the end of the semester.

Finally, class participation will include both discussion and also participation in Student Response System questions and surveys. Attendance is expected at all lectures. Repeated absence or tardiness will be reflected in the class participation grade unless documentation is provided for illness. You are expected to be aware of any missed lecture material and assignments and should rely on your fellow students to get this information.

All written work must be handed in class as printed documents. Late homework assignments and drafts will lose 10% of available points for each day that it is late, unless a prior accommodation has been made (see below). Vacations, lack of time, or forgetfulness are not acceptable excuses. No make-up will be offered for the exams. No late drafts will be accepted for Writing Fellow drafts. Meeting with the Writing Fellows is required and part of your score for the assignment.

Accommodation Policy

Campus policy: "We believe in the right of all students who are enrolled at the University of Wisconsin-Madison to full and equal educational opportunity. Disability should not be the basis for exclusion from educational programs. All students are entitled to an accessible, accommodating, and supportive teaching and learning environment. ... Students are expected to inform faculty, in a timely manner, of their need for special instructional accommodations."

Students requiring class accommodations due to a learning or physical disability must present documentation from the McBurney Disability Resource Center (<http://www.mcburney.wisc.edu/> ; 608-263-2741, Middleton Bldg, 1305 Linden Dr) no later than the second week of class. Accommodations will be made in consultation with the McBurney Center.

Students who require temporary accommodations due to medical or psychological reasons should acquire documentation from University Health Services. Counseling is available from Counseling Services, University Health Services (<http://www.uhs.wisc.edu/>).

Academic Honesty

Since there is significant written and collaborative work required in this course, you should take a moment to familiarize yourself with the University academic misconduct policy. All items submitted for this course should be original works created by you and not previously submitted for another course. Minor instances of academic misconduct will be treated with requirement to repeat the offending assignment with a reduced grade. Major instances will lead to automatic failure for the course.

The University policy, excerpted below, is at:

<http://www.wisc.edu/students/saja/misconduct/UWS14.html>

“Academic honesty requires that the course work (drafts, reports, examinations, papers) a student presents to an instructor honestly and accurately indicates the student's own academic efforts.

UWS 14 is the chapter of the University of Wisconsin System Administrative code that regulates academic misconduct. UW-Madison implements the rules defined in UWS 14 through our own "Student Academic Misconduct Campus Procedures." UWS 14.03 defines academic misconduct as follows:

Academic misconduct is an act in which a student:

- seeks to claim credit for the work or efforts of another without authorization or citation;
- uses unauthorized materials or fabricated data in any academic exercise;
- forges or falsifies academic documents or records;
- intentionally impedes or damages the academic work of others;
- engages in conduct aimed at making false representation of a student's academic performance;
- assists other students in any of these acts.

Examples include but are not limited to: cutting and pasting text from the web without quotation marks or proper citation; paraphrasing from the web without crediting the source; using notes or a programmable calculator in an exam when such use is not allowed; using another person's ideas, words, or research and presenting it as one's own by not properly crediting the originator; stealing examinations or course materials; changing or creating data in a lab experiment; altering a transcript; signing another person's name to an attendance sheet; hiding a book knowing that another student needs it to prepare an assignment; collaboration that is contrary to the stated rules of the course, or tampering with a lab experiment or computer program of another student.

If you are accused of misconduct, you may have questions and concerns about the process. If so, you should feel free to call SAJA”

Plagiarism

“Plagiarism means presenting the words or ideas of others without giving credit. You should know the principles of plagiarism and the correct rules for citing sources. In general, if your paper implies that you are the originator of words or ideas, they must in fact be your own.

If you use someone else's exact words, they should be enclosed in quotation marks with the exact source listed. You may put someone else's idea in your own words as long as you indicate whose idea it was (for example, "As Jane Smith points out, . . ."). If you are unsure about the proper ways to give credit to sources, ask your instructor or consult the Writing Center at 6171 Helen C. White Hall (phone: 608/263-1992, e-mail: writing@wisc.edu) for a copy of their handout "Acknowledging, Paraphrasing, and Quoting Sources," ”

Course Calendar

<u>Week 1</u>	9/3	Introduction to Global Change	
	9/5	Introduction to Earth Systems	
<u>Week 2</u>	9/8	Paper writing / Writing Fellow discussion	
	9/10	Atmosphere and Ocean Structure	ASSIGNMENT #1 DUE
	9/12	Atmosphere and Ocean Evolution	
<u>Week 3</u>	9/15	Electromagnetic radiation	
	9/17	Radiation Balance on Earth	
	9/19	The Greenhouse Effect	ASSIGNMENT #2 DRAFT DUE
<u>Week 4</u>	9/22	Fluids in the Earth System	
	9/24	Atmospheric Circulation	
	9/26	Oceanic Circulation	
<u>Week 5</u>	9/29	Chaos theory and Determinism	
	10/1	Weather and Climate	
	10/3	Seasons and Milankovitch Theory	
<u>Week 6</u>	10/6	ENSO and Other Oscillations	ASSIGNMENT #2 REVISION DUE
	10/8	Paleoclimate Studies	
	10/10	Climate History of Earth	
<u>Week 7</u>	10/13	Exam 1 Review Session	
	10/15	Exam	EXAM 1
	10/17	Scientific Research Discussion	
<u>Week 8</u>	10/20	Stratospheric Ozone	
	10/22	Ozone Loss	
	10/24	Tropospheric Aerosols	TERM PAPER TOPIC DUE
<u>Week 9</u>	10/27	Acid Rain	
	10/29	Fossil fuels and CO ₂	
	10/31	Biogeochemical cycles	
<u>Week 10</u>	11/3	Carbon Cycle over Land	
	11/5	Carbon Cycle in the Ocean	
	11/7	Anthropogenic Climate Change	ASSIGNMENT #3 DUE
<u>Week 11</u>	11/10	Climate Change and the Global Water Cycle	
	11/12	Climate Change, Oceans, and Land	
	11/14	General Circulation Models	
<u>Week 12</u>	11/17	Earth System Modeling	
	11/19	Regulating Ozone Loss and Acid Rain	TERM PAPER DRAFT DUE
	11/21	IPCC and Scientific Assessment	
<u>Week 13</u>	11/24	Climate Change Policy: Present and Future	
	11/26	Exam 2	EXAM 2
	11/28	NO CLASS (Thanksgiving break)	
<u>Week 14</u>	12/1	Biodiversity, Land, Food and Energy	
	12/3	Alternative Energy and Resources	(FIELD TRIP TBA)
	12/5	Debate prep	
<u>Week 15</u>	12/8	The Great Debates	
	12/10	The Great Debates	ASSIGNMENT #4 DUE
	12/12	Final Thoughts / Honors Student Presentations	FINAL PAPER DUE
<u>Final</u>	12/20	NO FINAL	