

# Culture and Climate Change

ANTH226

Tues & Thurs 3:30 – 4:45 pm

Woods Hall Rm. 1114

**Instructor:** Dr. L. Jen Shaffer

**Office Hours:** Tuesdays 2:00 – 3:00 pm and by  
appointment

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## Course Description

Climatic changes have helped shape hominin evolution, contributed to the rise and fall of complex societies, and affected socio-ecological systems. Human activities now influence ongoing climatic change, and the outcome remains uncertain for communities and cultures around the world. This interaction between humans and climate provides a rich area of study for anthropologists in an interdisciplinary context. In this course, we will explore past, present, and future interactions between humans and climate. Discussions, methods-oriented activities, and case study analyses provide students a foundation for appreciating the role of anthropology in understanding, responding to, and preparing for climate change.

## Course Learning Outcomes

Students in this course will read broadly to understand climatic influences on human-environment interactions and anthropological contributions to the study of climate change. They will develop their knowledge of methods used to study social aspects of climate change and explore how findings may be applied to improve the sustainability of communities in an uncertain future.

## Course Materials & Readings

We have one required text for this class.

Walker, B. and D. Salt. 2006. *Resilience Thinking: Sustaining Ecosystems and People in a Changing World*. Washington, DC: Island Press.

We will also use a variety of book chapters, journal articles, videos, and websites during the semester. These materials and readings will be posted to ELMS so that you may access them any time. Course syllabus, assignments and grading rubrics will also be posted to ELMS.

## Grading Criteria

Your learning, and ultimately your grade, is based on participating in classroom activities, completing a series of short assignments, and three take home exams. Student's grades will be calculated as follows:

	<i>Total Allowed</i>	<i>Your Grade</i>
<b>Short Assignments (4 total)</b>	<b>30% (total)</b>	_____
• Climate Data Analysis	10%	_____

• Media Discourse Analysis	10%	_____
• Climate Policy Simulation	10%	_____
<b>Exams</b> (take home)	<b>60% (total)</b>	_____
• Exam 1	20%	_____
• Exam 2	20%	_____
• Final Exam	20%	_____
<b>Class Participation</b>	<b>10%</b>	_____
<b>TOTAL</b>	<b>100%</b>	_____

<b>A+</b> → 97-100 %	<b>B+</b> → 87-89.9 %	<b>C+</b> → 77-79.9 %	<b>D+</b> → 67-69.9 %	<b>F</b> → below 60 %
<b>A</b> → 93-96.9 %	<b>B</b> → 83-86.9 %	<b>C</b> → 73-76.9 %	<b>D</b> → 63-66.9 %	
<b>A-</b> → 90-92.9 %	<b>B-</b> → 80-82.9 %	<b>C-</b> → 70-72.9 %	<b>D-</b> → 60-62.9 %	

### Short Assignments

I have created three short, take-home assignments to give you an additional opportunity to understand climate issues from a social science perspective. The following are brief descriptions of the activities and their due dates. I will provide more details, including grading rubrics, during class and on ELMS.

- *Climate Data Analysis (2/14/13)*: When writing up socio-ecological research, there is often a need to include simple graphics about local climate conditions. In this activity, you will graph out temperature and precipitation data from a given data set, and answer some questions about the climate of the data set’s location.
- *Media Discourse Analysis (3/8/13)*: The way the mainstream media presents climate information can bias the public’s perception. In this activity, you will follow a given news outlet for a week and collect any headlines for articles related to climate change. Then you will answer a few short questions about the values and perceptions promoted by the headlines/stories.
- *Climate Policy Simulation (5/1/13)*: Creating climate policy is not easy. In this activity, you will play an online game to simulate international climate policy debates and answer some summary questions. We will then discuss the game further in class.

### Exams

All three exams will be take home exams composed of a mix of multiple choice, matching, short answer, and short essay questions. Exams will be posted to ELMS on the Thursday before they are due – so you will have the entire weekend to complete it. Exams will not be posted or given out earlier. Exams are due on the dates indicated at the beginning of class. Failure to turn in an exam on time will result in a grade of zero for the exam.

### Class Participation

Active participation in class activities and discussions is essential. **These activities and discussions are geared to develop your personal adaptive capacity for responding to climate uncertainty and building a**

**sustainable future.** Because some of the questions we think about in class have no right or wrong answer, you will be graded on your participation in the discussions and activities. Don't stress out too much on this or you'll forget to have fun in class. ☺

### Course Schedule

This schedule is subject to change at the instructor's discretion. All schedule and reading changes will be announced in class.

DATE	TOPIC & READINGS	DUE
Th, 24 Jan	<b>Course Introduction</b> <i>Syllabus</i>	
T, 29 Jan	<b>Natural Climate Variation I</b> <i>Australian Bureau of Meteorology (2003) pp. 1-15</i>	
Th, 31 Jan	<b>Natural Climate Variation II</b>	
T, 5 Feb	<b>Hominid Evolution &amp; Climate</b> <i>de Menocal (2011), O'Neil (2011)</i>	
Th, 7 Feb	<b>The Human Diaspora</b> <i>Balter (2012)</i>	
T, 12 Feb	<b>Domestication &amp; Agriculture</b> <i>Fagan (2004) pp. 79-125</i>	<b>Climate Data Analysis</b>
Th, 14 Feb	<b>Reconstructing Past Climate</b> <i>Nicholson (1979)</i>	
T, 19 Feb	<b>Beyond Environmental Determinism</b> <i>Coombes &amp; Barber (2005)</i>	
Th, 21 Feb	<b>Responding to Change: Strategies &amp; Assets</b> <i>Thornton &amp; Manasfi (2010)</i>	
T, 26 Feb	<b>Thresholds &amp; Tipping Points</b> <i>Walker &amp; Salt (2006) pp. 51-73, Lenton et al. (2008)</i>	<b>Take Home Exam 1</b> <b>DUE</b>
Th, 28 Feb	<b>Food Security &amp; Famine</b> <i>Fraser (2007)</i>	
T, 5 Mar	<b>Contagion &amp; Pandemics</b> <i>Stenseth et al. (2008)</i>	
Th, 7 Mar	<b>Final Lessons from Norse Greenland</b> <i>Dugmore et al. (2009), Walker &amp; Salt (2006) pp. 74-95</i>	
T, 12 Mar	<b>Welcome to the Anthropocene!</b> <i>Steffen et al. (2007)</i>	
Th, 14 Mar	<b>Deniers, Skeptics, &amp; the IPCC</b> <i>Washington &amp; Cook (2011)</i>	<b>Media Discourse</b> <b>Analysis</b>
T, 19 Mar	<b>SPRING BREAK</b>	
Th, 21 Mar	*****No Class!!*****	
T, 26 Mar	<b>Mis(?) -Communication</b> <i>Boykoff 2007</i>	
Th, 28 Mar	<b>Indigenous Knowledge &amp; Adaptation</b> <i>Berkes &amp; Jolly (2001)</i>	
T, 2 Apr	<b>Risk &amp; Vulnerability</b> <i>Colton &amp; Sumpter (2009)</i>	

Th, 4 Apr	<b>Rising Temperatures &amp; Health</b> <i>Haines et al. (2006)</i>	
T, 9 Apr	<b>Drowning Lands &amp; Climate Refugees</b> <i>Oliver-Smith (2011)</i>	<b>Take Home Exam 2 DUE</b>
Th, 11 Apr	<b>Gender &amp; Mental Health</b> <i>Alston (2006)</i>	
T, 16 Apr	<b>Values and Perceptions as Behavioral Obstacles</b> <i>Gifford (2011)</i>	
Th, 18 Apr	<b>Transition, Transformation, Adaptive Capacity</b> <i>Walker &amp; Salt (2006) pp. 111-138, Meadows et al. (2004), Uhl (2003)</i>	
T, 23 Apr	<b>Global Climate Policy &amp; Environmental Justice</b> <i>Sachs (2008)</i>	
Th, 25 Apr	<b>U.S. Climate Policy, guest speaker Dr. Shirley Fiske</b> <i>Fiske (2009)</i>	
T, 30 Apr	<b>Maryland Climate Policy (town hall simulation)</b> <i>Naijjar et al. (2010), Cole (2008)*, Nuckols et al. (2010)*, *read/skim as needed for class preparation</i>	<b>Climate Policy Simulation Game</b>
Th, 2 May	<b>Scenarios for an Uncertain Future (scenario exercise)</b> <i>Enfors et al. (2008), Walker &amp; Salt (2006) pp. 139-154</i>	
T, 7 May	<b>Positive Futures</b> <i>Gyatso (1999), Pollan (2008), Zinn (1995)</i>	
Th, 9 May	<b>Sharing What We've Learned</b>	
T, 14 May		
Th, 16 May	<b>Final Exam</b>	<b>Final Exam DUE</b>

**Reading List** (additional, *optional* readings may be posted to ELMS)

- Australian Bureau of Meteorology. 2003. *Greenhouse Gases and Climate Change*. [URL] <http://www.bom.gov.au/info/GreenhouseEffectAndClimateChange.pdf>
- de Menocal, P. 2011. Climate and human evolution. *Science* 331: 540-542.
- O'Neil, D. 2011. *Adapting to Climate Extremes*. [URL] [http://anthro.palomar.edu/adapt/adapt\\_2.htm](http://anthro.palomar.edu/adapt/adapt_2.htm).
- Balter, M. 2012. The peopling of the Aleutians. *Science* 335: 158-161.
- Fagan, B. 2004. *The Long Summer: How Climate Changed Civilization*. New York: Basic Books. Pp. 79-125.
- Nicholson, S. 1979. The methodology of historical climate reconstruction and its application to Africa. *The Journal of African History* 20(1): 31-49.
- Coombes, P. and K. Barber. 2005. Environmental determinism in Holocene research: causality or coincidence? *Area* 37(3): 303-311.
- Thornton, T. and N. Manasfi. 2010. Adaptation –genuine and spurious: demystifying adaptation processes in relation to climate change. *Environment and Society: Advances in Research* 1(10): 132-155.
- Walker, B. and D. Salt. 2006. *Resilience Thinking: Sustaining Ecosystems and People in a Changing World*. Washington, DC: Island Press.
- Lenton, T., H. Held, E. Kriegler, J. Hall, W. Lucht, S. Rahmstorf, and H. Schellnhuber. 2008. Tipping elements in the Earth's climate system. *PNAS* 105(6): 1786-1793.
- Fraser, E. 2007. Travelling in antique lands: using past famines to develop an adaptability/resilience framework to identify food systems vulnerable to climate change. *Climatic Change* 83: 495-514.

- Stenseth, N., B. Atshabar, M. Begon, S. Belmain, E. Bertherat, E. Carniel, K. Gage, H. Leirs, and L. Rahalison. 2008. Plague: past, present, and future. *PLoS Medicine* 5(1): 9-13.
- Dugmore, A. C. Keller, T. McGovern, A. Casely, and K. Smiarowski. 2009. Norse Greenland settlement and limits to adaptation. In *Adapting to Climate Change: Thresholds, Values, Governance*. N. Adger, I. Lorenzoni, and K. O'Brien, eds. Pp. 96-113. New York: Cambridge University Press.
- Steffen, W., P. Crutzen, and J. McNeill. 2007. The Anthropocene: are humans now overwhelming the great forces of nature. *AMBIO* 36(8): 614-621.
- Washington, H. and J. Cook. 2011. Denial and the nature of science. In *Climate Change Denial: Heads in the Sand*. Washington, DC: Earthscan. Pp. 1-16.
- Boykoff, M. 2007. From convergence to contention: United States mass media representations of anthropogenic climate change science. *Transactions of the Institute of British Geographers* 32: 477-489.
- Berkes, F. and D. Jolly. 2001. Adapting to climate change: social-ecological resilience in a Canadian western Arctic community. *Conservation Ecology* 5(2): 18.
- Colten, C. and A. Sumpter. 2009. Social memory and resilience in New Orleans. *Natural Hazards* 48(3): 355-364.
- Haines, A., R. Kovats, D. Campbell-Lendrum, and C. Corvalan. 2006. Climate change and human health: impacts, vulnerability and mitigation. *Lancet* 367: 2101-2109.
- Oliver-Smith, A. 2011. Sea level rise, local vulnerability, and involuntary migration. In *Migration and Climate Change*. E. Pigué, A. Pécoud, and P. de Guchteneire, eds. Pp. 160-187. New York: Cambridge University Press.
- Alston, M. 2006. 'I'd like to just walk out of here': Australian women's experience of drought. *Sociologia Ruralis* 46(2): 154-170.
- Gifford, R. 2011. The dragons of inaction: psychological barriers that limit climate change mitigation and adaptation. *American Psychologist* 66(4): 290-302.
- Meadows, D., J. Randers, and D. Meadows. 2004. Tools for the transition to sustainability. *Limits to Growth: The 30-year Update*. Chelsea Green.
- Uhl, C. 2003. Understanding the social transformation process. *Developing Ecological Consciousness: Paths to a Sustainable Future*. Rowan & Littlefield Publishers.
- Sachs, W. 2008. Climate change and human rights. *Development* 51: 332-337.
- Fiske, S. 2009. Global change policy making inside the Beltway: engaging anthropology. In *Anthropology and Climate Change: From Encounters to Actions*. S. Crate and M. Nuttall, eds. Pp. 277-291. Walnut Creek, CA: Left Coast Press, Inc.
- Naijar, R., C. Pyke, M. Adams, D. Breitburg, C. Hershner, M. Kemp, R. Howarth, M. Mulholland, M. Paolisso, D. Secor, K. Sellner, D. Wardrop, and R. Wood. 2010. Potential climate-change impacts on the Chesapeake Bay. *Estuarine, Coastal and Shelf Science* 86: 1-20.
- \*Cole, W. 2008. *Sea Level Rise: Technical Guidance for Dorchester County*. Report to the Maryland Department of Natural Resources, Coastal Zone Management Division. 60 pp.
- \*Nuckols, W.H., P. Johnston, D. Hudgens, and J.G. Titus. 2010. "Maryland." In *The Likelihood of Shore Protection along the Atlantic Coast of the United States. Volume 1: Mid-Atlantic*. J. Titus and D. Hudgens, eds. Report to the U.S. Environmental Protection Agency. Washington, D.C. Pp. 511-622.
- Enfors, E., L. Gordon, G. Peterson, and D. Bossio. 2008. Making investments in dryland development work: participatory scenario planning in the Makanya Catchment, Tanzania. *Ecology and Society* 13(2): 42.
- Gyatso, T. 1999. Universal responsibility. In *Ethics for a New Millennium*. The 14<sup>th</sup> Dalai Lama. New York: Riverhead Books. Pp. 161-171.
- Pollan, M. 2008. Why bother? *The New York Times Magazine*. 20 April 2008.
- Zinn, H. 1995. *You Can't be Neutral on a Moving Train: A Personal History of Our Times* [short excerpt]. Beacon Press.

## **My Expectations of Students in this Course**

### *Participation & Attendance*

Everyone's learning depends on your participation in class discussions and activities. You will be graded on your in-class participation – either you participate or you don't. If you are not present, it makes class participation impossible. Medical excuses, religious observance, obituaries (need evidence), and attendance at an academic conference (need evidence) are justifiable excuses for missing class, and thus not participating. If weather (beyond emergency closings), vehicle maintenance, heartache, savage attack by velociraptors, etc. interferes with your class participation, I will be sympathetic, but you will not earn any participation points.

### *Conduct*

Students are expected to treat each other with respect. Disruptive behavior of any kind will not be tolerated. Students who are unable to demonstrate civility with one another or me will be subject to referral to the Office of Student Conduct or to the University Campus Police. You are expected to adhere to the Code of Student Conduct.

### *Technology*

In this class, students may bring their laptop to class to take notes or look up relevant information during class activities only. If a student is found to be using a laptop for any other reason, then, that student will lose the privilege of bringing their computer to class. All technological devices, except a laptop computer are prohibited in this class including MP3 devices, smart phones, phones, calculators, gaming devices, etc. If these devices are seen and/or used during the class, the student will be asked to leave the class immediately.

### *Online & Email communication*

Please remember that what you write and the images that you post provide the rest of us – your fellow classmates and I – an image of who you are. We'd love to think the world of you, so show us your best. Use good spelling and grammar. Be kind. DON'T SHOUT!! Open and close emails with proper greetings and regards. Choose your words and images carefully. Give credit where credit is due – either to a fellow student, the writer or producer of course materials, or your professors. Lastly, humor doesn't always transmit well through the internet – jokes, and especially satire, can be easily lost by a reader and taken seriously. Use emoticons if you feel the need for humor. ;-)  
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### *Assignments & Exams*

Assignments and Exams are due at the beginning of the class period when you walk in the door. You may turn in assignments early, although they will be graded with those of your classmates following the indicated due date. Any student who does not turn in an assignment by the time specified will lose points. One point will be deducted for each day the assignment is late. For students who are ill or are away, you may turn in assignments via email by the end of the class period when the assignment is due. Any student who does not turn in their exam by the time specified will receive a zero. If you have a medical emergency, notify me ASAP!! I will need documentation, but you will receive an extension.

Assignments, and the rubrics used to grade them, will be posted to ELMS. I will also provide information in class. Please use good grammar and spelling on all assignments and exams. Points will be docked for misspellings and poor grammar even if rubrics do not specifically indicate this.

### *Plagiarism*

I have no expectation of encountering plagiarism in this class. Sometimes, however, people unintentionally plagiarize because they do not know what actually constitutes plagiarism. To minimize the possibility, let me briefly clarify the issue. Stealing others' work (for example, copying others' test answers) and passing it off as your own is an example of plagiarism that everyone knows. It is also plagiarism in academic writing to present others' ideas as if they were your own. To avoid the appearance of plagiarism in written work, it is important to reference the sources of your ideas so as to keep the difference between others' ideas or arguments and the ideas or arguments that are uniquely yours. You cannot reference too many sources, although you are expected to be creative and generate some of your own ideas in your papers. Plagiarism and cheating in any form will not be tolerated. More information about properly citing your sources is provided in a handout on ELMS.

### *Academic Integrity*

Please remember that you need to write out, sign, and date the honor pledge on all assignments and the term paper ([www.studenthonorcouncil.umd.edu/code](http://www.studenthonorcouncil.umd.edu/code)). Basically,

*"I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/paper/examination. Signature MM/DD/YYYY"*

Plagiarism, submitting the same paper for credit in two courses without authorization, buying papers, submitting fraudulent documents, forging signatures, and cheating on assignments are all forms of academic dishonesty and punishable. Please don't pull this sort of thing. I don't cut deals. If you are discovered violating the Code of Academic Integrity ([www.president.umd.edu/policies/docs/III-100A.pdf](http://www.president.umd.edu/policies/docs/III-100A.pdf)), you will be referred to the Student Honor Council/Office of Student Conduct for investigation and possible disciplinary action. If you are found in violation of the Code of Academic Integrity, the usual penalty is an XF for the course.

### **Students with Disabilities**

I will make every effort to accommodate students who are registered with the Disability Support Service (DSS) Office and who provide me with a University of Maryland DSS Accommodation form which has been updated for the Spring 2012 semester. Only written DSS documentation of the accommodation will be considered. This form must be presented to me no later than 24 February 2012. I am not able to accommodate students who are not registered with DSS or who provide me with documentation which has not been reviewed and approved by UM's DSS Office after 24 February 2012.

### **Medical Excuses**

In my class, you or a guardian must email me or call me PRIOR to class to inform me that you will not be in attendance due to injury or serious illness, and thus will miss the class participation or an assignment/exam deadline. At the very next class session that you are in attendance, you must present

me with a self-signed note for missing one single lecture. This note must include the date of illness and a statement that the information you have provided is true. You must also state that if your absence is found to be false, you understand that you will be referred to the Office of Student Conduct. The statement must be signed and dated. Please understand that only one self-signed note for one absence will be allowed. For non-consecutive absences or your final paper, I will require a Health Center or medical doctor's health excuse. If you do not inform me or if you do not give me timely documentation, 0 points will be given to you for class participation and points will be docked from your assignment or paper. Please note that in the case you are unable to get a written medical excuse, you may ask your provider for a copy of your medical notes for the specific visit/s in question.

### **Religious Observance**

Please refer to the Online Catalog Policy on Religious Observance. If there is a specific day you will not be able to attend class or turn in a particular assignment or exam, please provide me, in writing the day and specific religious observance by 7 February 2012. Please remember that accommodations are NOT made for travel to and from the religious observance.

### **University Emergency Closing**

In the event that the University is closed for an emergency or extended period of time because of inclement weather and campus emergencies, I will communicate to you via ELMS or email to make schedule adjustments, including rescheduling of assignment due dates. Official closures and delays are announced on the campus website <http://www.umd.edu>. The snow phone line is 301-405-SNOW, as well as local radio and TV stations.

### **Course Evaluation**

I take course evaluations very seriously. Each year I revise my syllabus, readings, course assignments, and exams based on your feedback. I am not just interested in the scores you give this course, but also very interested in your specific comments. I will provide a couple of opportunities during the course to give me anonymous feedback. I would like to encourage each and every one of you to evaluate this class as well as your other courses. One important campus-wide evaluation is the online evaluation at the end of the semester. *Course Evaluation UM* will be open to students to complete their evaluation for Spring 2013 courses starting at the end of April 2013. Students can go directly to the website to complete their evaluations ([www.courseevalum.umd.edu](http://www.courseevalum.umd.edu)).

