

ESCI 4252/6252 – Global Environmental Change

COURSE SYLLABUS

Instructors:

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Class Meeting: Mondays and Wednesdays 12:40-2:05 in Johnson Hall room 119.

Office Hours: Dr. Dye: Mondays and Wednesdays 11:30am – 12:30pm; and by appointment.
Dr. Burnette: Mondays and Wednesdays 11:30am – 12:30pm; and by appointment.
Dr. Hill: Tuesdays 1:00 – 2:30pm; and by appointment.

COURSE DESCRIPTION, OBJECTIVES, AND GOALS

Characteristics of natural systems; magnitude of human alteration of environmental systems; history of natural change in climate and landscape; impact of changes.

In this course we explore environment-society interactions and consider the drivers and consequences of this interaction for societies. The seminar-style course will employ a case-study and interpretive models approach to investigate and make sense of the chronic-stress processes environmental change exerts on populations as well as the socio-cultural impacts. Students will develop skills in data analysis, model building and interpretation, multi-disciplinary perspectives, as well as written and oral communication, including conference-style presentations.

Through examining the interactions between environment and society this course meets four objectives/goals:

1. Introduce the range and type of environmental changes;
2. Examine the (natural and societal) causes and consequences of changes;
3. Understand, build and interpret models of change;
4. Develop critical thinking, scientific analysis, and communication skills (written and verbal).

COURSE RESOURCES

Required Text:

Fagan, Brian. 2008. The Great Warming: Climate Change and the Rise and Fall of Civilizations. Bloomsbury Press. ISBN: 978-1-596-91601-2.

Supplemental Readings:

Hornborg, A. and C. Crumley (Eds). 2006. The World System and the Earth System: Global Socioenvironmental Change and Sustainability Since the Neolithic. Taylor and Francis Press. ISBN: 978-1598741018. [NOTE: portions of this text will be used as supplemental readings – purchase of this text is not required].

Classic and recently published supplemental readings will be distributed via e-courseware.

Communication

E-courseware (<https://elearn.memphis.edu/>) is used for distribution of course resources, submission of work, and viewing grades. Feedback on assignments is designed to support learning and can be retrieved at the appropriate e-courseware dropbox. Communication is encouraged – appointments are available on request and office hours are posted on this syllabus. Please keep in mind that e-mail might not be the ideal platform for clarifying course materials.

COURSE REQUIREMENTS

This course is conducted in a seminar-discussion format. Students can expect a combination of formal lecturing, discussions, in-class exercises, guest lectures, and data analysis.

Knowledge of physical and human elements of the Earth Sciences is assumed and remedial materials are available as necessary.

TASKS	POINTS AVAILABLE	
	Undergraduate (4252)	Graduate (6252)
Exercise A: Reconstructing Environmental Extremes	10 points	10 points
Exercise B: Case Study of Environmental Change	10 points	10 points
Reflection Briefs (3 at 5 points each)	15 points	15 points
Exam I (first part of the semester)	15 points	15 points
Exam II (second part of the semester)	15 points	15 points
Semester Project Topic Statement/Premise Approval		
Semester Project Presentation	10 points	10 points
Semester Project Written Paper	15 points	10 points
Grad Assignment – Discussion Lead on 01 April 2019	Not applicable	10 points
Participation	10 points	5 points
Total	100 points	100 points

Exercises are opportunities to thoroughly investigate a specific topic raised in this course. The first will focus on environmental reconstruction; the second is a case study investigation of either an archaeological or contemporary example of global change. Details for each exercise will be distributed via e-courseware.

Reflection Briefs provide an opportunity for students to reflect on a variety of reactions to a topic and to relate their reflection to readings and discussions. Reflections are brief opinion or exploration pieces and are not researched. Details for each of three reflections will be distributed via e-courseware dropbox.

Exams are used to assess mastery of concepts and themes introduced through coursework. They are closed book, closed notes, closed web resources.

Graduate Student Discussion Leadership will lead our discussion on 01 April 2019. The team will facilitate a scholarly discussion of and application of the topic of the day.

Semester Project is a culmination of work throughout the semester. Students will select and investigate a specific aspect of environmental change. In addition to a written paper, an oral presentation will be delivered so that all members of the class learn what their peers have discovered through their respective project work. Details for the semester project will be distributed via e-courseware.

Participation is not simply attending class, but rather involves contributing to class discussions and the on-going process of learning. A successful seminar relies on everyone being strategically and thoughtfully prepared; it is also imperative that everyone be respectful of each participant's views. To support participation students will complete in-class work and also are expected to share points and/or questions for each reading assignment.

Suggestions

1. Read the entire syllabus and mark your calendar with task deadlines as listed in the class schedule (below).
2. Engaging in study each day is particularly helpful as we apply our knowledge to the environment around us.
3. Ask questions - stop by office hours or make an appointment. If you are struggling or have a specific area of interest that you'd like to explore please don't be shy – arrange a time to discuss your concerns or interests.

GRADING SYSTEM

Final grades will be earned on the basis of the total points earned on the tasks listed above. The College of Arts and Sciences requires that an incomplete (I) grade be issued only for exceptional circumstances such as severe illness or work related issues that are beyond your control. In both instances documentation is required.

Graduate and undergraduate student work will be graded separately. To receive graduate credit a student must complete an additional assignment and be registered for 6252 not 4252.

Grade	Total Points Earned						
A+	97 – 100	B+	87 – 89	C+	77 – 79	D+	67 – 69
A	94 – 96	B	84 – 86	C	74 – 76	D	64 – 66
A-	90 – 93	B-	80 – 83	C-	70 – 73	D-	60 – 63
						F	0 – 59

POLICES AND PROCEDURES

The purpose of these policies is to make expectations clear and to avoid any misunderstandings for classroom behavior and conduct.

1. Any student who anticipates physical or academic barriers based on the impact of a disability is encouraged to speak with me privately. Students with disabilities should also contact Disability Resources for Students (DRS) at 110 Wilder Tower, 901.678.2880. DRS coordinates access and accommodations for students with disabilities. Students should initiate the process early in the semester.
2. Be aware of the policy on academic misconduct at the U of M. (<http://www.memphis.edu/studentconduct/pdfs/csrr.pdf>).
As outlined in the *UM Code of Student Rights and Responsibilities*, “cheating” and “plagiarism” will result in disciplinary action on the part of the instructors. Either offense will be grounds for receiving an “F” on the assignment or examination and possibly an “F” for the course, depending on the severity of the offense. Please contact the instructors if you have any questions about these topics.
3. Inappropriate behavior may result in point deductions. Personal and situational factors will not be considered in the calculation of course grades.
4. Attendance and participation are expected. In the event of a missed class, you are responsible for collecting any missed notes. You should expect that participation in both in-class and on-line learning environments will impact your understanding and outcomes.
5. To minimize distractions to those around you and maintain a productive learning environment, mobile devices should be switched into “silent” mode upon entering the classroom. Newspapers, crossword puzzles, sudokus, or work for other classes are distractions, disrespectful, and undermine academic discipline - they will not be allowed. Students violating will be directed to leave. Sleeping and idle chatter likewise are distracting and undermine our learning environment, engaging in these activities will lead to a request to leave class with impacts on the participation grade.
6. Students are responsible for announcements made during classes and for all changes to the syllabus and announcements distributed via memphis.edu emails and e-courseware.

7. In the event that inclement weather requires the cancellation of class at The University of Memphis, local radio and television media will be immediately notified. Additionally, The University of Memphis has established an Inclement Weather hotline at 678-0888. Information and resources related to other weather and other types of emergencies can be accessed at <http://www.memphis.edu/crisis/>

The University of Memphis comprehensive personal safety mobile app is LiveSafe and can be downloaded for free. For downloading details and an overview of the app visit:

<http://www.memphis.edu/police/pdf/uofm-livesafe-overview-letter.pdf> or <https://www.facebook.com/uofmemphis/videos/10155794442848273/>

8. Students are encouraged to fill out the student evaluation of teaching effectiveness (SETE) on-line survey. Your responses are valued and incorporated in subsequent courses. While responses are collected during the semester responses are not available for faculty viewing until after the semester ends
9. Deadlines for assignments and exam dates are established at the first meeting of the semester and are strictly enforced. Expect to provide documentation for submitted work after a deadline.

Students will be evaluated on the basis of understanding of course materials, not personal beliefs. The general grading rubric requires students to demonstrate: (1) an understanding of the issues raised in discussions and readings; (2) an understanding of the theories and points of view presented in class, in readings, and in any powerpoints and workshops; (3) an understanding of the evidence presented and conclusions drawn by earth scientists; and (4) an engagement with the course materials through participation in class discussion and performance on assigned tasks. None of these require students to subscribe to an evolutionary perspective or to disavow personal religious beliefs.

SCHEDULE OF TOPICS AND TASKS		
DATE	TOPICS AND THEMES	TASKS TO COMPLETE
M 01/14	Introduction and Expectations	1. Secure a copy of our textbook. 2. Familiarize yourself with e-courseware.
W 01/16	Anthropological and Geographical Approaches Reflection Brief A	1. Consider: How do we know what we know? 2. Submit: Reflection A prior to class.
M 01/21	No class – Martin Luther King Day	
W 01/23	A Time of Warming	1. Read: Fagan Chapter 1. 2. Consider: Prepare to share 2 points from the reading during class.
M 01/28	Modern Climate Variability and Change	1. Read: Supplement A 2. Consider: What variability and change represent?
W 01/30	Paleoclimate Variability and Change	1. Read: Supplement B 2. Consider: Scale and how it is relevant when considering variability and change.
M 02/04	In-class Drought Atlas Workshop	1. Read: Supplement C
W 02/06	Contemporary Extreme Events - Hazards	1. Read: Supplement D 2. Consider: What do contemporary hazards reveal about environmental stresses?
M 02/11	Contemporary Extreme Events – Global Change Exercise A: Reconstruction	1. Read: Supplement E 2. Consider: Examples of environmental change that exist today. 3. Submit: Exercise A prior to class.
W 02/13	Intersection of Extreme Events and Human Systems	1. Read: Supplement F 2. Consider: Prepare to share 2 points from the reading during class.
M 02/18	Human Response to Change	1. Read: Supplement G 2. Consider: How have humans responded to environmental change?
W 02/20	Case Study: High Middle Ages Reflection Brief B	1. Read: Fagan Chapter 2. 2. Consider: Prepare to share 2 points from the reading during class. 3. Submit: Reflection Brief B due prior to class.
M 02/25	Case Study: Far East	1. Read: Fagan Chapter 12 2. Consider: Prepare to share 2 points from the reading during class.
W 02/27	Exam I	All of above.
M 03/04	NO CLASS – SPRING BREAK	
W 03/06	NO CLASS – SPRING BREAK	
M 03/11	Case Study: The American West I: Great Basin	1. Read: Fagan Chapter 6. 2. Read: Supplement H 3. Consider: Prepare to share 2 points from the reading during class

W 03/13	Case Study: The American West II: Ancestral Puebloans	<ol style="list-style-type: none"> 1. Read: Fagan Chapter 7. 2. Read: Supplement I 3. Consider: Prepare to share 2 points from the reading during class
M 03/18	Case Study: Eastern North America (Spiro and Cahokia)	<ol style="list-style-type: none"> 1. Read: Supplements J and K 2. Consider: Prepare to share 2 points from the reading during class
W 03/20	Case Study: Middle East – Bronze Age Exercise B: Case Study	<ol style="list-style-type: none"> 1. Read: Supplement L 2. Consider: Prepare to share 2 points from the reading during class 3. Submit: Exercise B prior to class.
M 03/25	Case Study: Meso-America I: Maya	<ol style="list-style-type: none"> 1. Read: Fagan Chapter 8. 2. Read: Supplement M 3. Consider: Prepare to share 2 points from the reading during class
W 03/27	Case Study: Meso-America II: Aztecs	<ol style="list-style-type: none"> 1. Read: Fagan Chapter 9. 2. Read: Supplement N. 3. Consider: Prepare to submit 2 themes highlighted by case study investigations.
M 04/01	Cross-cutting Themes – Grad-student lead	<ol style="list-style-type: none"> 1. Read: Review notes from all for above. 2. Consider: Prepare to discuss themes you recognize across case study examples.
W 04/03	Semester Project Work Day	Class will not meet today. Instructors will be available during the class period to field questions.
M 04/08	Student Presentation – Round #1	To be assigned
W 04/10	Student Presentation – Round #2	To be assigned
M 04/15	Student Presentation – Round #3	To be assigned
W 04/17	Student Presentation – Round #4	To be assigned
M 04/22	Pulling Together a Picture of Change and Impacts Reflection Brief C	<ol style="list-style-type: none"> 1. Read: Review notes from all of above. 2. Submit: Reflection C prior to class.
W 04/24	Dissemination: Translating for a General Audience	All of above.
	Exam II	All of above.
<i>Note – changes in the schedule may occur. Deadlines for assignments will not change.</i>		