

ESCI 4252/6252 – Global Environmental Change

COURSE SYLLABUS

Instructors:

Dr. David H. Dye
113 Johnson Hall
daviddye@memphis.edu
901-678-3330

Dr. Dorian J. Burnette
230 Johnson Hall
djbrntte@memphis.edu
901-678-4452

Dr. Arleen A. Hill
204 Johnson Hall
aahill@memphis.edu
901-678-2589

Class Meeting: Mondays and Wednesdays 2:20am – 3:45pm in Johnson Hall room 222.

Office Hours: Dr. Dye: Mondays and Wednesdays 11:30 – 12:30; and by appointment.
Dr. Burnette: Mondays, Tuesdays, and Wednesdays 10:00 – 11:00am; and by appointment.
Dr. Hill: Mondays and Tuesdays 1:00 – 2:00pm; and by appointment.

Changes may be made to the syllabus at any time during the semester.

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 will explore environment-society interactions and consider the drivers and consequences of this interaction for societies. This seminar-style course will use 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.

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:

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

E-courseware (<https://elearn.memphis.edu/>)

will be used to distribute resources including supplemental readings and assignments, submit work, retrieve feedback, and view progress and grades.

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	15 points	15 points
Exercise B: Modern Case Study	15 points	15 points
Exercise C: Archaeological Case Study	15 points	15 points
Discussion Leadership	10 points	15 points
Semester Project Topic Approval	5 points	5 points
Semester Project Written Paper	20 points	15 points
Semester Project Presentation	15 points	5 points
Graduate Student Discussion Team Leader	Not applicable	10 points
Participation	5 points	5 points
Total	100 points	100 points

Assignment details will be distributed via e-courseware.

Exercises are opportunities to thoroughly investigate a specific topic raised in this course. The first will focus on environmental reconstruction; the second focuses on a contemporary case of extreme event or global change; the third builds on the previous and investigates an archaeological case of change.

Discussion Leadership On one occasion a student will lead our discussion as a member of a leadership team. The team will be led by a graduate student class member. The task is to 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 example of environmental change. In addition to a written paper an oral presentation will be delivered so that all members of the class learn what peers discovered through their project work.

Participation is not attendance, rather contributing to our class discussions and learning. A successful seminar relies on all of us being thoughtfully prepared and respectful participants.

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	Grade	Total Points Earned
A+	97 – 100	C+	77 – 79
A	94 – 96	C	74 – 76
A-	90 – 93	C-	70 – 73
B+	87 – 89	D+	67 – 69
B	84 – 86	D	64 – 66
B-	80 – 83	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, announcements can be accessed via University webpage and social media; local radio and television media and via *TigerText*.

Information related to other weather and other types of emergencies as well as campus preparedness efforts can be via the BeTigerREADY Crisis Management portal <http://www.memphis.edu/crisis/>

Students are encouraged to register for *TigerText* to receive emergency alert text messages at https://umwa.memphis.edu/tigertext/index_alt.php
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.
10. Students will be evaluated on the basis of understanding of course materials, no 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	TOPIC AND TASKS	Reading Assignment
W 01/18/17	Introduction and Expectations	n/a
M 01/23/17	A Time of Warming	Fagan, B. Chapter 1.
W 01/25/17	Anthropological and Geographical Approaches	Reading Supplement A
M 01/30/17	Modern Climate Data	Reading Supplement B
W 02/01/17	Paleoclimate Data	Reading Supplement C
M 02/06/17	In-class Drought Atlas Workshop	
W 02/08/17	Contemporary Extreme Events - Hazards Exercise A: Reconstruction due at start of class	Reading Supplement D
M 02/13/17	Contemporary Extreme Events – Global Change	Reading Supplement E
W 02/15/17	Intersection of Extreme Events and Human Systems	Reading Supplement F
M 02/20/17	Contemporary Human Response to Change Exercise B: Modern Case Study due at start of class	Reading Supplement G
W 02/22/17	Semester Project In-class work session (mandatory)	
M 02/27/17	Case Study: Spiro	Reading Supplement H
W 03/01/17	Case Study: Spiro	Reading Supplement I
M 03/06/17	NO CLASS – SPRING BREAK	
W 03/08/17	NO CLASS – SPRING BREAK	
M 03/13/17	Case Study: The Great Basin	Fagan Chapter 6. Reading Supplement J
W 03/15/17	Case Study: American Southwest	Fagan Chapter 7. Reading Supplement K
M 03/20/17	Case Study: Cahokia Exercise C: Archaeological Case Study due at start of class	Reading Supplement L
W 03/22/17	Case Study: The Maya	Fagan Chapter 8. Reading Supplement M
M 03/27/17	Case Study: South America	Fagan Chapter 9. Reading Supplement N
W 03/29/17	Case Study: The Aztec	Reading Supplement O.
M 04/03/17	Case Study: China	Fagan Chapter 12. Reading Supplement P
W 04/05/17	Case Study: High Middle Ages	Fagan Chapter 2. Reading Supplement Q.
M 04/10/17	Semester Project Work Day	n/a
W 04/12/17	Student Presentation – Round #1	To be assigned
M 04/17/17	Student Presentation – Round #2	To be assigned
W 04/19/17	Student Presentation – Round #3	To be assigned
M 04/24/17	Student Presentation – Round #4	To be assigned
W 04/26/17	Pulling Together a Picture of Change and Impacts	All of above.
<i>Note – changes in the schedule may occur. Deadlines for assignments will not change.</i>		