

Geography 303/503

PROCESSES OF ENVIRONMENTAL DEGRADATION

Fall 2021

Professor: Samantha Kaplan

Office: D-327 Science Building

Office Hours: In-person: Tuesday & Thursday 1:00 - 2:00 pm

Zoom: Wednesday 1-2 pm, and by appointment

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Required Text: Goudie, Andrew, 2018. *The Human Impact on the Natural Environment*. Eighth Edition. Malden, MA: Blackwell, 357 p.

Students with Disabilities: Students with learning and/or physical disabilities are encouraged to contact me to make any special arrangements for taking lecture notes or exams.

Course Description: 3 Credits. Explore why and how humans harm the natural environment with particular emphasis on the physical processes and mechanisms that result in degradation. Case studies from around the world illustrate the geographic, cultural, political, and economic causes and consequences of environmental degradation in both modern and ancient contexts, as well as future projections of environmental transformation through human action.

Requirements Satisfied: GEP: Environmental Responsibility (ER)

Learning Outcomes: Upon completion of this course students will be able to:

- Demonstrate an understanding of the historical context and current status of degradation that occurs in human-dominated ecosystems.
- Discuss verbally and in writing concepts related to the anthropogenic causes and effects of physical, chemical, and biological degradation.
- Identify interactions between human society and the natural environment.
- Analyze the individual, social, cultural, and ecological factors that influence environmental sustainability.
- Evaluate competing claims that inform environmental debates.

Class Description and Policies

- This is a 100% asynchronous distance learning course
- There are no mandatory class meetings
- There will be two recorded video lectures each week (approx 30 min each)
- These will be done via Zoom at 8:30 am on Mondays and Wednesdays and available immediately afterwards
- For those who are available and interested, you may join the Zoom lecture live at those times. See the Zoom section for links.
- Please make sure you have watched both lectures for the week before asking questions about content or assignments.
- E-mail communication must contain a subject line, the course number (Geog 303) and be courteous and coherent for a response.
- Canvas will be used for most course communication outside of recorded lectures. Please check Canvas regularly for course updates and announcements.

Assessment

Grades will be based on:

- Exams - Three non-cumulative lecture-based exams
- Essays - Two short essays on controversial topics
- Oral presentation and discussion of an environmental book
- Short answer exercises - weekly question set based on course readings or videos

Evaluation:

	Percent
Exams (3 @ 12% ea.)	36%
Short Essays (2 @ 12% ea.)	24%
Oral presentation and discussion	13%
Short Answer Exercises (9 @ 3% ea.)	27%
Total	100%

Final Letter Grades: Letter grades will be assigned as follows:

Percent	Letter Grade
≥93	A
90-92.9	A-
87-89.9	B+
83-86.9	B
80-82.9	B-
77-79.9	C+
73-76.9	C

70-72.9	C-
67-69.9	D+
62-66.9	D
<62	F

Student Rights and Responsibilities:

- UWSP has guidelines regarding student rights and responsibilities in class and on campus. These are outlined on the Dean of Student's website and in the Student Handbook. Do review these resources if you have not already:
 - <https://www.uwsp.edu/dos/Pages/stu-conduct.aspx>
 - <https://www.uwsp.edu/dos/Pages/stu-academic.aspx>
 - <https://www.uwsp.edu/dos/Pages/handbook.aspx>
 - <https://www.uwsp.edu/dos/Documents/AcademicIntegrityBrochure.pdf>
 - <https://www.uwsp.edu/dos/Documents/UWSP14-Final2019.pdf>

Class Schedule

Date	Topic	Reading	Assignment Posted	Assignment Due
W 8-Sep	Humans and the Environment	Goudie Ch. 1 p. 1-6; Vitousek et al (1997) Human domination of Earth's ecosystems		
F 10-Sep				
M 13-Sep	Population and IPAT	Goudie Ch. 1 p. 6-25; UN World Population growth (2019)		
W 15-Sep	Population	J. Diamond, Collapse, Ch. 1	Montana	
F 17-Sep				
M 20-Sep	Biodiversity	Goudie Ch. 2 p. 27-32; 71-72; Ch. 3 p. 75-81, 98-108	Essay	
W 22-Sep	Industrialized Agriculture	M. Pollan (2006) Omnivore's Dilemma	Food Production	
F 24-Sep				Montana
M 27-Sep	Invasive species	Goudie Ch. 2 p. 32-38; Ch. 3 82-98		
W 29-Sep	Vegetation Impacts & Extinctions	E. Kolbert (2014) The Sixth Extinction Ch. I; Ch. 10	Biodiversity	
F 1-Oct				Food Production
M 4-Oct	Deforestation Causes	Goudie Ch. 2 p. 39-49; Ch. 8 p. 271-278		
W 6-Oct	Measuring Deforestation	Williams (2001) The History of Deforestation	Deforestation	
F 8-Oct				Biodiversity + book selection
M 11-Oct	Soil Erosion	Goudie Ch. 4 p. 112-121, 138-143		
W 13-Oct	Exam 1	Pimental and Burgess (2013) Soil erosion threatens food production		
F 15-Oct				Deforestation
M 18-Oct	Soil Salinization	Goudie Ch. 4 p. 111-112, 127-138		
W 20-Oct	Desertification	Goudie Ch. 3 p. 52-56; 4, Ch. 6 p. 183-185	Soils	
F 22-Oct				Essay Due
M 25-Oct	Water - Fluvial Systems	Goudie Ch. 5 p. 155-162; Hoekstra and Mekkonen (2012) The water footprint of humanity		
W 27-Oct	Water - Lakes	Goudie Ch. 5 p. 162-168; E. Kolbert (2021) The Lost Canyon Under Lake Powell	Lake Powell	
F 29-Oct				Soils
M 1-Nov	Groundwater & Water Pollution	Goudie Ch. 5 p. 168-182, Ch. 6 p. 192-198		

W	3-Nov	Groundwater & Water Pollution	R. Carson, Silent Spring, Ch. 4	Silent Spring	
F	5-Nov				Lake Powell
M	8-Nov	Coastal Impacts & Oceans	Goudie Ch. 6 p. 223-230		
W	10-Nov	Exam 2	Richards et al. (2015) Rates and drivers of mangrove deforestation		
F	12-Nov				
M	15-Nov	Coastal Impacts & Oceans	Goudie Ch. 5 p. 182-185; Ch. 9 p. 283-298	Air Pollution	
W	17-Nov	Air Pollution & Ozone Hole	Goudie Ch. 7 p. 252-265		
F	19-Nov				Silent Spring
M	22-Nov	Climate System - Introduction	IPCC 2021		
W	24-Nov		N. Oreskes and E. Conway (2014) The Collapse of Western Civilization Ch. 1		Air Pollution
F	26-Nov	THANKSGIVING			
M	29-Nov	Causes of Climate Change	Goudie Ch. 7 p. 233-242		
W	1-Dec	Global Warming and the IPCC	N. Oreskes and E. Conway (2014) The Collapse of Western Civilization Ch. 2 & 3	Climate and the future	
F	3-Dec				
M	6-Dec	Future Climate	Goudie Ch. 8 267-278; Ch. 10 301-304; Ch. 11 313-316, 322-328		Oral Presentation
W	8-Dec	Wrap up - exam review			
F	10-Dec				Climate and the future
M	13-Dec	or T 14-Dec	Exam 3		Peer Review