

Geography 303/503

PROCESSES OF ENVIRONMENTAL DEGRADATION

Fall 2017

- Professor:** Samantha Kaplan
- Office:** D-327 Science Building
- Office Hours:** Tuesday & Thursday 11:00 am - 12:00 pm, and by appointment
- Office Telephone:** 715-346-4149 (try email first)
- Email:** skaplan@uwsp.edu
- Required Text:** Goudie, Andrew, 2013. *The Human Impact on the Natural Environment*. Sixth 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

- Critically evaluate competing arguments in areas of social and scientific uncertainty within subfields of environmental science
- Identify appropriate conservation, rehabilitation, or restoration measures to mitigate degradation in various types of impacted environments.

Classroom Policies

- No talking, texting, emailing, web-surfing, or listening to music during class. This is disruptive and discourteous to your peers and to the professor. Phones and other electronic devices must be turned off. Laptops may be used for note-taking, but only with prior approval. Any student found violating these rules will be asked to leave the classroom.
- Attendance is expected at all class meetings. Participation is worth 8% of your grade.
- I do not post lecture notes on-line and I do not share my lecture notes with students. Please do not ask. If you miss class, it is your responsibility to get the notes from a classmate. I will post Power Point lecture slides following class (not before).

Assessment

Grades will be based on:

- Three non-cumulative lecture-based exams
- Two short essays on controversial topics
- Leading, in groups of three, an oral presentation and discussion of a degradation topic
- Class participation and in-class exercises
- Graduate students will also write a term paper
- **Evaluation:**

	Undergraduate	Graduate
Exams (3)	39%	36%
Short Essays (2)	26%	18%
Discussion Leadership	15%	15%
Attendance and Participation	8%	7%
In-Class Exercises	12%	9%
Term Paper	NA	15%
Total	100%	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 specific guidelines regarding student rights and responsibilities in class and on campus explained at <http://www.uwsp.edu/dos/Pages/Academic-Concerns%20for%20Students.aspx>

Class Schedule

(Subject to change)

<u>Date</u>	<u>Topic</u>	<u>Assignment</u>
T 5-Sep	Introduction	
R 7-Sep	Processes of Degradation	Goudie Ch. 1
T 12-Sep	Humans and the Environment <i>EXERCISE – Montana as Microcosm</i>	Vitousek et al (1997) <i>Human domination of Earth's ecosystems</i> J. Diamond, <i>Collapse</i>, Ch. 1
R 14-Sep	Population	L. Brown (2005) Ch. 2; Snider and Brimlow (2013) <i>An introduction to population growth</i>
T 19-Sep	Biodiversity	M.E.A. - <i>Biodiversity</i> p. 18-41 Pimm et al. (2014) <i>The biodiversity of species and their rates of extinction...</i>
R 21-Sep	<i>EXERCISE - Food Production</i>	M. Pollan (2006) <i>Omnivore's Dilemma</i>, excerpt; Movie - King Corn
T 26-Sep	Invasive species, Vegetation Impacts Extinctions	Goudie Ch. 2 p. 23-39, 53-64 Goudie Ch. 3
R 28-Sep	<i>EXERCISE - Biodiversity</i>	E. Kolbert (2014) <i>The Sixth Extinction</i> Ch. I; Ch. 10
T 3-Oct	Deforestation	Williams (2001) <i>The History of Deforestation</i>
R 5-Oct	<i>DISCUSSION - Deforestation</i>	Wallace (2007) <i>Farming the Amazon</i>
T 10-Oct	Exam 1	Goudie Ch. 4, Ch. 6 p. 183-185
R 12-Oct	Soil Erosion & Salinization	Pimental and Burgess (2013) <i>Soil erosion threatens food production</i>
T 17-Oct	Desertification	Goudie Ch. 2 p. 42-48; Ch. 12 p. 284-289
R 19-Oct	<i>DISCUSSION - Soils</i>	M.E.A. - Desertification
T 24-Oct	Water - Fluvial Systems & Lakes	Goudie Ch. 5 p. 121-140; Ch. 6 p. 178-183
R 26-Oct	<i>DISCUSSION - Water Supply</i>	Essay 1 Due
T 31-Oct	Water Pollution & Groundwater	Goudie Ch. 5 p. 140-156; R. Carson, <i>Silent Spring</i> , Ch. 4
R 2-Nov	<i>DISCUSSION - Water Pollution</i>	Conley et al (2009) <i>Controlling eutrophication</i> Hoekstra and Mekkonen (2011) <i>The water footprint of humanity</i>

<u>Date</u>	<u>Topic</u>	<u>Assignment</u>
T 7-Nov	Coastal Impacts & Oceans	Goudie Ch. 5 p. 156-158; Ch. 6 p. 185-193
R 9-Nov	<i>DISCUSSION - Oceans & Fisheries</i>	Richards et al. (2015) <i>Rates and drivers of mangrove deforestation</i> E. Kolbert, <i>The Sixth Extinction</i> Ch. 6
T 14-Nov	Exam 2	
R 16-Nov	Air Pollution & Ozone Hole	Goudie Ch. 7 p. 211-229
T 21-Nov	<i>DISCUSSION - Air Pollution</i>	Kampas and Castanas 2008 <i>Human health effects of air pollution</i>
R 23-Nov	THANKSGIVING	
T 28-Nov	Climate System - Introduction	Goudie Ch. 7 p. 196-211
R 30-Nov	Causes of Climate Change <i>DISCUSSION - Greenhous gases</i>	N. Oreskes and E. Conway (2014) <i>The Collapse of Western Civilization</i> Ch. 1 Essay 2 Due
T 5-Dec	Global Warming and the IPCC	Goudie Ch. 8; Rosenzweig <i>et al</i> 2008; IPCC 2014
R 7-Dec	<i>DISCUSSION - Climate and health</i>	N. Oreskes and E. Conway (2014) <i>The Collapse of Western Civilization</i> Ch. 2
T 12-Dec	Future Climate	N. Oreskes and E. Conway (2014) <i>The Collapse of Western Civilization</i> Ch. 3
R 14-Dec	<i>EXERCISE - The Future</i>	E. Kolbert, <i>The Sixth Extinction</i>, Ch. 5
T 19-Dec	Final Exam 8:00 am - 10:00 am	