

# Environmental Change: The End of the World as We Know It?

## GEOG-G 185

Department of Geography  
Indiana University  
Fall 2018 Syllabus

**Lecture:** Tuesday & Thursday 2:30 PM to 3:45 PM

**Lecture Location:** Student Building 015

**Instructor:** Dr. Natasha MacBean

**Office:** Student Building 204

**Office hours:** Tuesday & Thursday 4:00-5:00 pm, or by appointment

**Email:** [nmacbean@indiana.edu](mailto:nmacbean@indiana.edu)

In most cases, I will respond to email queries within 12 hours. Please exchange contact information with at least two other students so that if you have a burning question they may assist you if I am unavailable. If you have a lengthy question, it is best to see me after class or in office hours. **Note that I am not allowed to discuss grades over email.**

### **Associate Instructors**

Your AI(s) are here to help you navigate this course as well. You should draw on them as resources throughout the semester, and should communicate with them regarding missed classes or assignments (while also copying me on the email). As they will be grading most assignments, grading inquiries should be directed to them as well.

**Associate Instructor:** Marika Lapham

**Office:** Student Building 304

**Office hours:** Tuesday & Thursday 1:00-2:00 pm, or by appointment

**Email:** [malapham@iu.edu](mailto:malapham@iu.edu)

### **About the Course**

*Required text: Middleton, N. (2013) The Global Casino: An introduction to environmental issues. 5th Edition, Routledge, New York*

\*\*\*Please note that the 5th edition is substantially updated and different than previous editions. The textbook is our main source for information and reference material throughout the course. However, we may utilize additional sources of online information including Google products, online quizzes, and other collaborative products. It will be your responsibility to create accounts where necessary to participate in these exercises. You will be reminded, however.

**Contacting classmates:**

I recommend you exchange contact information with your teammates. They will be a valuable source of information should you miss class for any reason.

**Course Goals and Learning Outcomes****Course description:**

This course is intended to equip students with a foundational understanding of environmental change. To this end, we will work and learn together - addressing along the way the complexity of social-environmental systems, sensitivity of ecosystems and the inherent challenges in understanding and planning for modern environmental change. Each week will focus on 1-2 major environmental change processes and include topics such as: climate change, tropical deforestation, desertification, coastal issues, food production, waste management, and natural hazards. Common threads in all of these topics will pervade the whole semester; these include the use of data from observations and models, the consideration of multiple scales of change (temporal and spatial), the role of vulnerability in environmental change, and the interaction of human behaviors and choices with natural systems. Please note that this is not a traditional lecture-based class format. While I will typically begin sessions with a brief lecture, students will work in groups on exercises designed to illustrate environmental change issues. Students will need to be active participants in order to excel in this class – attendance to all classes is expected.

**Course goals:**

Students who engage in this class as active learners and participants will have a strong foundational knowledge of the drivers, effects, and repercussions of environmental change on our shared planet. They will be equipped to continue their understanding of these issues beyond our classroom and be well positioned in their own lives to make informed decisions regarding these topics.

**Learning outcomes:**

- Explain basic concepts and principles of environmental change
- Analyze the relationships between the physical and human environment
- Understand sustainable development: what are positive and negative feedback on environmental conservation?
- Differentiate natural and human-induced climate change
- Critically discuss the impact of humans on biological resources from the oceans, coastal areas, rivers, lakes and wetlands
- Appreciate the inherent uncertainty associated with climate change prediction
- Increased ability to assess impacts of food and waste management, mining, energy production and natural disasters on the environment
- Enhance critical research and thinking ability and learn how to effectively synthesize information

### Grading

In-class Activities	40%
Online Quizzes*	20%
Group Participation/Overall Participation	10%
First Exam (11 <sup>th</sup> October 2018)	15%
Second Exam (6 <sup>th</sup> December 2018)	15%

\*Lowest grade will be dropped

### Grading Scale

97% - 100%	A+	77% - < 80%	C+
93% - < 97%	A	73% - < 77%	C
90% - < 93%	A-	70% - < 73%	C-
87% - < 90%	B+	67% - < 70%	D+
83% - < 87%	B	63% - < 67%	D
80% - < 83%	B-	60% - < 63%	D-
		< 60%	F

#### **Grade Dissemination:**

All grades will be posted on Canvas. Please make sure to track your own grades, as mistakes can occasionally occur. If you have received a grade by mistake, please see one of us for a correction in Canvas.

### Course Policies & Services

#### **Canvas:**

All Canvas quizzes cover the textbook readings and are due by 11:59pm the night before the topic is covered in class. Although you will still be able to take the quiz after this time, your score will be automatically changed to "0" if the quiz is submitted late. Due dates for each quiz are listed on the course homepage.

All in-class assignments will be provided via Canvas and each group will upload their work via Canvas before the due date.

Class announcements, materials and updated information will be distributed via the course website on Canvas. You may need to adjust your settings to ensure you receive timely communications from this class. Check that your notifications are set appropriately by going to Canvas. In the top left of the window select "Account" then "Notifications" to review and change your preferences.

## **Course Policies: GRADES**

**Late Work:** *Late work will not be accepted.* In-class activities are the largest portion of your grade in the course, and your attendance is expected. Students who do not attend class will not receive credit for missed activities, except for university-recognized absences (e.g., military duty, illness with doctor's note, religious observation). If you have an excused absence for any of these reasons, make arrangements in advance or ASAP to makeup missed activities.

**Extra Credit:** Occasionally, there are campus events that are relevant to our course which will expand your understanding of these topics. Students are allowed to participate in 2 events each semester, each worth 1pt. of extra credit. All events will be listed on the calendar, along with any additional instructions to receive the extra credit. There will also be additional extra credit opportunities during class (such as introducing environmental news items), but you'll have to attend or you might miss them (obviously).

**Participation:** We will take weekly attendance in class (either Tuesday or Thursday); however, your participation grade will largely be determined by peer review. Teams will switch once during the semester, and you will be asked to grade your teammates' participation twice (worth 2.5% each time). The average grade from your peers will be your participation grade. There is also an additional 5% of overall class participation (i.e., answering questions, being active, etc.).

**Plagiarism and Academic Dishonesty:** Plagiarism is the act of taking someone else's work and presenting it as your own. Plagiarism can occur in several forms, but whether the action is intentional or not, it is in violation of the IU Student Code of Conduct. Copying and pasting text off of the Internet or any other source is NOT acceptable, as this is stealing someone else's work. If you use an author's materials verbatim, you must place these words in quotation marks, and must correctly reference them. Proper references must be placed in the text as well as in the bibliography. Be aware that when citing sources, you must do so not only when a passage is a direct quotation, but also when paraphrasing. Failure to do so will result in a "0" for the project. If you have questions or concerns regarding how to properly cite your resources, please ask me or contact Campus Writing Services. Additionally, if you are new to this university, are unclear about what plagiarism is, or would like a brief review of IU's standards, please look [here](#).

## **Course Policies: EXPECTATIONS FOR STUDENTS**

**Attendance:** Attendance is mandatory in order to receive full credit for daily team activities.

**Civility:** This classroom is a team-based learning community. As such, I expect students to *support one another* in learning this material. If your team experiences problems working together and/or effectively, please make an appointment to consult with me. We will also ask students to report on teamwork. In these moments, remember that speaking aloud in front of many people can be difficult. Support your peers in these moments with engaged body language. This will have a positive impact on their confidence and ability to communicate clearly. Working as a group is something you'll have to do for the rest of your life – might as well get used to it!

**Use of electronic devices in class:** This is one of Indiana University's most wired classrooms and the course is designed to make use of this capability. However, students are not allowed to browse the Internet, text or use their own cellphones, computers, etc. for non-class activities. This distracts from your own engagement, as well as that of your peers. To this end, students are not permitted to use computers during course lectures, although you may use personal computers when needed during teamwork. Students distracted by and distracting others with personal use on electronics may be asked to leave the classroom and will be marked absent for the day, resulting in a "0" for the day's assignment.

**Students with Disabilities:** The Americans with Disabilities Act (ADA), the Indiana Civil Rights Act, and Indiana University policy prohibit discrimination in educational programs against students with disabilities. Disabilities may include medical, auditory, visual, learning, psychological, mobility, or neurological problems. It is the policy of Indiana University to provide reasonable accommodations in a timely manner and on an individualized basis while maintaining institutional standards of performance. These accommodations are designed to counter the effects of disabilities where they may pose a barrier to the education process; they will not give the student an easy grade or an advantage over other students. See the [Office of Disability Services for Students](#) for accommodation and documentation.

**Religious Observances:** See [here](#) from more information on religious accommodation.

**Sexual Harassment:** As your instructor, one of my responsibilities is to help create a safe learning environment on our campus. Title IX and our own Sexual Misconduct policy prohibit sexual misconduct. If you have experienced sexual misconduct, or know someone who has, the University can help.

If you are seeking help and would like to speak to someone confidentially, you can make an appointment with:

The Sexual Assault Crisis Service (SACS) at 812-855-8900

Counseling and Psychological Services (CAPS) at 812-855-5711

Confidential Victim Advocates (CVA) at 812-856-2469 IU Health Center at 812-855-4011.

**More information about available resources can be found here:**

<http://stopsexualviolence.iu.edu/help/index.html>.

It is also important that you know that federal regulations and University policy require me to promptly convey any information about potential sexual misconduct known to me to our campus' Deputy Title IX Coordinator or IU's Title IX Coordinator. In that event, they will work with a small number of others on campus to ensure that appropriate measures are taken and resources are made available to the student who may have been harmed. Protecting a student's privacy is of utmost concern, and all involved will only share information with those that need to know to ensure the University can respond and assist.

I encourage you to visit <http://stopsexualviolence.iu.edu> to learn more.

## **Support services for Students**

### **Writing Tutorial Services:**

For free help at any phase of the writing process—from brainstorming to polishing the final draft—call [Writing Tutorial Services](#) (WTS, pronounced “wits”) at 855-6738 for an appointment. When you visit WTS, you’ll find a tutor who is a sympathetic and helpful reader of your prose. To be assured of an appointment with the tutor who will know most about your class, please call in advance.

Tutorials are available at the following times and locations. Call 5-6738 for an appointment:

WTS in the Information Commons on the first floor of the Wells Library

Monday-Thursday 10:00 a.m. to 8:00 p.m.

Friday 10:00 a.m. to 5:00 p.m.

Walk-in tutorials are available when WTS has an opening, but the appointment book often fills in advance.

Walk-in tutorials only:

WTS in the Briscoe, Teter, and Willkie Academic Support Centers

Sunday-Thursday 7:00 p.m. to 11:00 p.m.

### **Knowledge base and UITS support center:**

For any technical support, see the [Knowledge Base](#) or go to the [UIITS Support Center website](#).

### **Schedule**

Please see the following page.

Please note that this syllabus/schedule may change without notice in order to reflect the needs of our classroom. See the course webpage on Canvas for the Quiz deadlines.

<b>Date</b>	<b>Topic</b>	<b>Assignments</b>
21-Aug-18	Course Introduction	Team Introduction
23-Aug-18	Scales	Geological timescale
28-Aug-18	Physical Environment	Build your own ecosystem
30-Aug-18	Physical Environment	
4-Sep-18	Human Environment	Breathing Earth Exercise
6-Sep-18	Human Environment	
11-Sep-18	Sustainable Development	Sustainable Development
13-Sep-18	Sustainable Development	
18-Sep-18	Tropical Deforestation	Deforestation I
20-Sep-18	Tropical Deforestation	Deforestation II
25-Sep-18	Desertification	Desertification
27-Sep-18	Oceans	
2-Oct-18	Coastal Issues	Coastal Hazards Sandy
4-Oct-18	Rivers, Lakes, & Wetlands	Great Lakes
9-Oct-18	Midterm Review	
11-Oct-18	<b>First Exam</b>	
16-Oct-18	Big Dams	Colorado River
18-Oct-18	Urban Environments	Greenways
23-Oct-18	Climatic Change	Atmospheric CO <sub>2</sub> I
25-Oct-18	Climate Risks	Atmospheric CO <sub>2</sub> II
30-Oct-18	Paleoclimate	Tree ring exercise
1-Nov-18	Acidification	Acid Rain in the USA
6-Nov-18	Soil Erosion	History of Erosion in the USA
8-Nov-18	Biodiversity Loss	Biodiversity Loss
13-Nov-18	Food Production	
15-Nov-18	Energy Production	Stabilization wedges
20-Nov-18	<b>Thanksgiving break</b>	
22-Nov-18	<b>Thanksgiving break</b>	
27-Nov-18	Mining	A New Type of Mining
29-Nov-18	Natural Hazards	Impacts from Natural Hazards
4-Dec-18	Final Review	
6-Dec-18	<b>Second Exam</b>	