1. About the Instructor

Instructor: Professor Nikos Zirogiannis  
Office: SPEA 331  
E-mail: nzirogia@indiana.edu; Phone: 812-856-8323  
Office hours: Monday 2:45-4:45  
Administrative Assistant: Genia Marvin; euasher@indiana.edu; SPEA 330; Phone: 812-855-0563

2. About the Course

Class meeting days and times: M-W 11:15-12:30pm  
Class location: GA 1106  
Course prerequisites and co-requisites: There are no prerequisites for this course.

3. Readings and Materials

Required Text: There is no required textbook for this class. All reading materials will be made available on Canvas.

Videos: We will watch several videos/documentaries during the course of the semester. URLs (links) to those videos will be listed on the syllabus or appear on the lecture slides posted on Canvas. Those videos are an integral part of the course and students are expected to be familiar with the information and key concepts that appear in them.

Canvas and other website information: All lecture notes, slides, assignment deadlines, readings and class grades will be posted on Canvas. Students are expected to check their Canvas web-site frequently and stay up to date with regards to the content that is posted there.

Contacting classmates: Please make sure you obtain the names and contact information for at least 2 classmates. In case you are absent, you are responsible for contacting your classmates in order to recover any material you might have missed, as well as any announcements I might have made in class.

4. Course description

The environment has always been an integral part of every aspect of human activity. Whether for recreation, employment, resource extraction or everyday life we all utilize some natural resource in one way or another on a daily basis. Unfortunately, the relationship between people and their environment has increasingly been an unsustainable one. No other environmental problem exemplifies this unsustainable relationship in a more profound way than global climate change. It is a problem that poses an existential threat for humanity. Our course this semester will focus, among other things, on the ways human activity contributes to climate change, the impacts that climate change has on human and
natural ecosystems as well as the various public policies that can be used to mitigate the problem. Throughout the course of the semester will also be examining several other important environmental problems like invasive species, water quality, environmental justice, and local air pollution.

5. Learning Outcomes

After taking this course students will be able to:

1. **Articulate** ways in which human activity impacts a series of environmental resources and the extent to which it contributes to climate change, water and air quality.
2. **Analyze** the different ways in which people rely on various natural resources for a multitude of different purposes.
3. **Understand** the consequences that increased economic growth and resource consumption place on a finite environment and the ways they impact climate change, water and air quality.
4. **Critically assess** environmental problems and information they encounter in the news. They will also be able to find more information on these environmental problems by using appropriate research methods and resources.
5. **Understand** policy tools (or policies) that are in place to deal with climate change and other environmental problems as well as **identify** organizations/government agencies that are responsible for designing and monitoring those policies.

6. Grading: Means of assessment

**Weekly response papers and peer-reviews (15%)**: You will have to submit weekly response papers based on each week’s assigned readings. Response papers (RPs) will be due every Monday at 10am and should be submitted on-line through Canvas. The only exception will be for the first graded RP that will be due on Wednesday of week 2, since there is no class on Monday that week. For each RP you will have to answer a list of questions. RPs will be graded on a pass/fail basis. In addition, for each RP, each student will be assigned a peer-reviewer at 10am every Tuesday. One of your E183 colleagues will have to review your response paper and provide you with substantive feedback. The peer reviewer will not provide a grade for your response paper, only comment on your responses. The deadline for that feedback will be 5pm every Friday (peer-reviews will be graded by me on a pass/fail basis). **Please note**: The peer review process of the response papers will be anonymous. The reviewer cannot see the name of the assigned person whose work is to be reviewed, and the student who submitted the assignment cannot view names associated with any comments. Peer reviewers can be critical of a response paper but have to do so in a constructive and above all respectful manner. The golden rule applies here: “treat your colleague’s response paper as you would like your colleague to treat yours”. RPs submitted after 10am on Tuesday will not be assigned a peer-reviewer. In addition, if you submit your response paper after 10am on a Tuesday, you yourself will not be assigned as a peer-reviewer for another student’s RP. I will drop your lowest RP and your lowest peer-review grade of the semester.

**Attendance (5%)**: I expect that you come to class having completed and be ready to discuss the required readings assigned each week. In addition, I expect that you engage and contribute to class discussions and in-class group activities. I allow three absences during the semester. It makes no difference to me if you are absent because you were sick with the flu, or because you wanted to attend your best friend’s wedding¹. You should not feel the need to e-mail me explaining the reason for your absence. Please

¹ That does not mean I do not care about your wellbeing. The point I’m trying to make is that I recognize that students have competing interests when it comes to managing their time (the same holds for my time). Given those competing interests, I
note that as of August 1, 2019, the IU Health Center will no longer provide excuses for students who miss classes, assignments, or tests due to short term illness, injury, or mental health problems. This is the main reason I have established a three-absence policy. Other than those three absences, additional absences will have an impact on your attendance grade. Any extraordinary circumstances will be handled on a case-by-case basis.

You are strongly advised to SAVE YOUR ABSENCES. The only exceptions are religious holidays per IU policy; when students request accommodation approved by Disability Services for Students (DSS) office in advance using the appropriate form; extended illness that resulted in hospitalization or family crises. The Dean of Students Office will provide absence letters for student hospitalization or family crises.

I will start taking attendance during week #2. At the beginning of every class you will have to pick up a “name tent” and place it on the desk where you are sitting (I will provide students with “name tents”). You will need to return that name tent to me at the end of every class. I will assign attendance points based on the “name tents” that will be returned to me at the end of every class.

Grading guidelines and policies: Late assignments will receive grade deductions. RPs and their peer-reviews, will receive a grade deduction of 1% for every hour past the deadline. For example, if a response paper is submitted at 4:30pm (instead of the 10am deadline) the student will receive a grade deduction of 7%. Assignments submitted four days past the deadline will not be accepted and the student will receive a grade of zero for the assignment. Any extraordinary circumstances will be handled on a case by case basis.

Exams (75% of class grade): There will be two non-cumulative mid-terms and one cumulative final exam. The dates for the exams are: 1) Mid-term #1 (in class) Wednesday February 26th, 2) Mid-term #2 (in-class) Wednesday April 15th and, 3) Final exam 10:15-12:15 Monday May 4th. No make-up exams will be given except in extraordinary circumstances (i.e. true medical or family emergencies) that are substantiated by official documentation. The exams will receive different weights. The best of the two mid-terms will receive a weight of 25%. The mid-term with the lowest of the two grades will receive a weight of 20%. The final exam will comprise 35% of your class grade.

Grade summary

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response papers and peer-reviews</td>
<td>15%</td>
</tr>
<tr>
<td>Attendance</td>
<td>5%</td>
</tr>
<tr>
<td>First mid-term</td>
<td>25% (20%)</td>
</tr>
<tr>
<td>Second mid-term</td>
<td>20% (25%)</td>
</tr>
<tr>
<td>Final exam</td>
<td>35%</td>
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</tbody>
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7. Class Policies

Communication: I make every effort to respond to e-mails sent during the week as soon as possible (usually within a few hours if not immediately). E-mails sent from students after 5pm might not be answered until the following day. Also, do not expect that I will respond to e-mails during the weekend. I will have the same expectations from you in terms of responding to my e-mails or to announcements posted on Canvas. Students are expected to use professional language when communicating with their

understand that students might not be able to make it to class on up to three occasions. Additional absences (whether due to a legitimate reason or not), are an indication of poor time management skills (barring true emergencies).
instructor and refrain from utilizing informal salutations. Finally, students are expected to refrain from asking questions whose answers can be obtained following a careful reading of the syllabus.

**Availability/Office hours:** I am happy to meet with students and discuss any issues regarding the course and the material we cover. If you want to see me please feel free to stop by my office during office hours (Mondays 2:45-4:45pm).

**Class protocol:** We have 75 minutes per lecture and I intend to use all of them. Please be on time and refrain from visiting with your classmates during the lecture. On my end, I will make sure never to keep you longer than 12:30. I do not appreciate students who arrive late for class, or those that start packing up their belongings 5 minutes before class is over. Repeated late arrivals will impact your attendance grade. If you have any conflicting appointments before or after class please do let me know.

**Electronic devices:** Based on research findings that have demonstrated negative learning impacts from laptop use in the classroom\(^2\),\(^3\),\(^4\) I have decided to implement a “no electronic devices” policy in class. That means no laptops, no cell phones, no tablets. Please see me for any extraordinary circumstances.

**Academic Integrity:** Students are expected to be familiar with their rights, responsibilities and relevant procedures as described in the IU student code ([http://studentcode.iu.edu/index.html](http://studentcode.iu.edu/index.html)). As a member of the academic community of IU: “While you’re entitled to respect and civility, you also have responsibilities to the campus community” (IU Student Code, 2017). Incidences of academic misconduct (including but not limited to, cheating on an exam, plagiarizing in an assignment, etc.) will be handled pursuant to university policy as outlined in the IU student code: [http://studentcode.iu.edu/procedures/bloomington/discipline/academic-misconduct/index.html](http://studentcode.iu.edu/procedures/bloomington/discipline/academic-misconduct/index.html)

**Disability Services for Students (DSS):** Every attempt will be made to accommodate qualified students with disabilities (e.g. mental health, learning, chronic health, physical, hearing, vision neurological, etc.) You must have established your eligibility for support services through the appropriate office that services students with disabilities. Note that services are confidential, may take time to put into place and are not retroactive; Captions and alternate media for print materials may take three or more weeks to get produced. Please contact Disability Services for Students at: [https://studentaffairs.indiana.edu/student-support/disability-services/index.html](https://studentaffairs.indiana.edu/student-support/disability-services/index.html) or 812-855-7578 as soon as possible if accommodations are needed. The office is located on the third floor, west tower, of the Wells Library, Room W302. Walk-ins are welcome 8 AM to 5 PM, Monday through Friday. You can also locate a variety of campus resources for students and visitors that need assistance at: [http://www.iu.edu/~ada/index.shtml](http://www.iu.edu/~ada/index.shtml).

**Student Academic Center (SAC):** SAC helps students develop learning strategies, perspectives, and behaviors they can use to transform their education. SAC supports all students on the IUB campus, Freshmen through Seniors - regardless of school, major, or program. Whether you’re struggling academically, doing well but would like to do even better, or want to achieve at the pinnacle of your chosen field, the SAC can help. Academic Coaching is one of the services offered by the SAC. It consists of 3 one-on-one sessions per semester that focus on transferable habits and skills that can be applied broadly to all of your classes (goal setting, time management/organization, how to get more out of your

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studying, motivation, making sense of campus academic support resources, etc.). For more information please visit: https://sac.indiana.edu/index.html

Writing Tutorial Services (WTS): WTS offers free one-on-one consultations to all IUB students. Students can discuss their assignment with a WTS consultant and get valuable feedback and advice. For free help at any phase of the writing process—from brainstorming to revising the final draft—visit the Writing Tutorial Services' (WTS, pronounced "wits") website: https://wts.indiana.edu/schedule. You will need to complete a one-time registration if this is your first time using the online scheduler. You may also call 812-8556738 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. WTS, in the new Learning Commons on the first floor of the West Tower of Wells Library, is open Monday-Thursday 10:00 a.m. to 8:00 p.m. and Friday 10:00 a.m. to 5:00 p.m. WTS tutors are also available for walk-in appointments in the Academic Support Centers in Briscoe, Forest, and Teter residence halls and in several culture centers around campus. Call WTS or visit wts.indiana.edu for hours.

8. Course Outline

This is a tentative reading list. I might add (or remove) readings along the way, but will give you at least 2 weeks’ notice if I do so. All reading materials can be accessed on the “Readings materials” folder on Canvas unless otherwise noted.

Week #1 (1/13-1/15): Introduction. The Environmental Movement in the US

Week #2 (1/20-MLK Day; 1/22): Invasive species and the great lakes
• Chapter 4: Noxious Cargo; The Invasion of Zebra and Quagga Mussels (pages 108-147)

Week #3 (1/27-1/29): Access to Drinking Water
• Chapter 3: Is it Safe to Drink the Water? (pages 72-112)
• Chapter 7: Need vs. Greed (pages 192-224).

Week #4 (2/3-2/5): The Flint Water Crisis
• Chapters 5-8, 11 (pages 53-114, 145-160)

Week #5 (2/10-2/12): Water and Agriculture
• Chapter 10: Crops and Drops: Getting More from Less in Agricultural Water Use (pages 205-220)
Week 6 (2/17-2/19): Climate Change: What the Science says and who is responsible
- Chapter 1: Climate Change: A primer (pages 3-27)
- Chapter 3: Who’s Responsible? Which countries, Regions and Activities are Warming the World? (pages 43-58)
Evans (2014). Externality, Environmental and Natural Resource Economics: An Encyclopedia

Week 7 (2/24-2/26): First mid-term exam
2/24: Review session for mid-term exam
2/26: First mid-term exam (in-class)

Week 8 (3/2-3/4): The Impacts of Climate Change: From the Marshal Islands to NYC
- Chapter 7: Walled Cities (pages 145-164)
- Chapter 8: Island States (pages 165-189)

https://www.resourcesmag.org/resources-radio/was-madrid-cop-out-assessing-cop25-nathaniel-keohane/

- Chapter 7: Is Fracking Good or Bad for Climate Change?

Spring Break (3/16-3/18)

- Chapter 3: Why do Economists Like a Carbon Tax? (pages 35-52)
- Chapter 4: Isn’t there a better way (No, there isn’t) (pages 53-71)

Week 11 (4/1-4/3): Carbon tax hands on. Climate Change Communication
Carbon tax in-class experiment
Borenstein, S. (2019). Climate Scientists try to cut their own carbon footprint. Associate Press

Week 12 (4/6-4/8): Air quality and local air pollutants
- Chapter 3: The Great Smog (pages 35-50)
- Chapter 5: Ozone, the Pollutant that rots rubber (pages 61-70)
• Chapter 6: Acid Rain and the particles that form in our air (pages 71-83)
• Clean Air (pages 169-193)
  Tuesday 4/7 (5-7pm): Solve Climate by 2030. Panel discussion (More details to be announced during the semester. There will be an opportunity to earn extra credit).

**Week 13 (4/13-4/15): Second mid-term exam**
4/13: Review for second mid-term
4/15: Second mid-term exam (in-class)

**Week 14 (4/20-4/22): Health Impacts of Air Pollution**
  • Chapter 7: A tale of six cities (pages 85-95)
• Introduction (pages 1-32)

4/27: Review of mid-terms #1 and #2.
4/29: Review session for the final exam.

**Week #16: Final (cumulative) exam on Monday May 4th 10:15am-12:15pm.**

9. **Additional Information for Students**

1. **Incomplete.** The grade of Incomplete used on the final grade reports indicates that the work is satisfactory as of the end of the semester but has not been completed. The grade of Incomplete may be given only when the completed portion of a student’s work in the course is of passing quality. Instructors may award the grade of Incomplete upon a showing of such hardship to a student as would render it unjust to hold the student to the time limits previously fixed for the completion of his/her work ([https://policies.iu.edu/policies/aca-67-incompletes/index.html](https://policies.iu.edu/policies/aca-67-incompletes/index.html))

2. **Late Withdrawal.** Withdrawal after the automatic withdrawal period requires approval by the instructor and relevant Program Director, and must be based on dire circumstances relating to extended illness or equivalent distress (IU Enrollment and Student Academic Information Bulletin). Requests to drop due to a failing grade will not be approved. You must be passing the course at the time of withdrawal. Contact your advisor or the appropriate Program Director if you want to petition for late withdrawal.

3. **Counseling and Psychological Services:** For information about services offered to students by CAPS: [http://healthcenter.indiana.edu/counseling/index.shtml](http://healthcenter.indiana.edu/counseling/index.shtml)

4. **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:

i. The Sexual Assault Crisis Service (SACS) at 812-855-8900  
ii. Counseling and Psychological Services (CAPS) at 812-855-5711  
iii. Confidential Victim Advocates (CVA) at 812-856-2469  
iv. IU Health Center at 812-855-4011

For more information about available resources: http://stopsexualviolence.iu.edu/help/index.html. It is also important to 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/help/index.html to learn more.

5. Disclosure of Student Records: The 1974 Family Educational Rights & Privacy Act (known as “FERPA”) protects the privacy of students’ educational records and generally prohibits the release or disclosure of student records by school officials to any third party without the student’s prior written consent. As your instructor I will ensure that, prior to communicating with parents or any third party about a student’s educational records (including grades, papers, performance, etc.), and assuming that the student wants me to convey that information, I will have obtained the necessary prior written consent from the student. If the student fails to provide me with such written consent, then I will not be able to provide information on the student’s educational records to their parents or to any third party (please note that this is especially relevant in the event a student wants me to be listed as a reference in a job application, or wishes to obtain a recommendation letter from me). The Office of the Registrar has compiled FERPA resources for instructors, including a tutorial, a list of best practices, and a standard consent form. http://registrar.indiana.edu/policies/student-privacy-ferpa.shtml.

6. Religious and Civic Observances: I will provide reasonable accommodations to students who want to observe their religious holidays at times when academic requirements conflict with those observances. The details on IU’s policies regarding religious observances can be found at the following link: http://enrollmentbulletin.indiana.edu/pages/relo.php. Please note that, pursuant to university policy, “If a conflict with a religious observance exists, a student must make a request for a reasonable accommodation for that observance by the end of the second week of the course”. The form that students must submit to the instructor can be accessed here: https://studentaffairs.indiana.edu/doc/dos/request-for-accomodation-religious-observances.pdf

7. Students in Financial Crisis: The Student Advocates Office can help students work through personal and academic problems as well as financial difficulties and concerns in order to help students progress towards earning a degree. In addition to advising student on appeal and financial issues such as financial aid or tuition, they also have emergency funds for IU students experiencing emergency financial crisis. https://studentaffairs.indiana.edu/student-advocates/