

Instructor: Kevin Schultz, Ph.D.

Class meeting days & times: Every weekday 9:30-11:30

Student Hours: MTWTh 11:30-12:30

Class Location: JSC 225

Office Location: JSC 123

**About me:** I became fascinated with science when I first looked through a telescope my Dad's childhood friend had built. I was six and the memory of a shooting star and Saturn's rings are permanently etched in my mind. The fact that I was the perfect age to be obsessed with the original Star Wars most likely contributed as well. I had done well in math and science and then in 5<sup>th</sup> grade I did poorly on a few assessments and was demoted and thus began decades of math anxiety. In high school, I still was in a high-ish math class, but I convinced myself I wasn't cut out for Math. I desperately looked for sciences without much math and even considered majoring in English. Since I am first-gen college in my immediate family, my parents were supportive, but couldn't help much. Fast forward a few years and I had gotten my PhD in physics (still with math anxiety), I worked at Brookhaven National Labs, and The Ohio State University before landing my first tenure-track job. A few years into that job in a moment of respite preparing for my class, I casually was flipping through a textbook and came across a concept I never had understood, and in that moment, I understood it. I also understood my math anxiety. I had spent decades telling myself I could not do the math, that I left no space in my mind to actually do it. Now I teach it!

- **Catalog Description:** An investigation into the energy sources that make our modern world possible and the impact of those energy sources on the environment. Fossil fuels, nuclear energy, solar power, hydropower, wind power, and alternative energy sources will be investigated. The class will consider some major issues: How does our energy use affect the climate and our environment? What proof do we have for climate change? Who is ultimately responsible? Why has progress in combating climate change been so slow?
- **Learning Outcomes & Assessment:** Students will
  - Describe the physics of energy and its transformation into work, heat, and other types of energy
  - Learn how Americans obtain and use energy
  - Learn how energy use affects the environment and its social cost
  - Examine how communities and individuals are affected by environmental challenges
  - Examine how communities and individuals can mitigate and adapt to environmental challenges
  - Explore the strengths and limitations of technological solutions to environmental challenges (GEO 6)
  - Examine how a multi-disciplinary approach is needed to adapt and mitigate environmental challenges (GEO 6)

These outcomes will be assessed through students' weekly responses and in the final paper.

- **Texts and Other Instructional Materials:**
  - *Energy, Environment, and Climate 4<sup>th</sup> ed*, Richard Wolfson, ISBN 9780393893533
  - Readings obtained on D2L
- **Grading/Evaluation:** The final grade will be determined from students' answers to the weekly question sets, the final paper, and through attendance. The breakdown of the grades is shown below, and your grade will be continuously updated in D2L.

80%	Weekly Questions (4x20%)
15%	Final Paper

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5%	Attendance
100%	TOTAL

- All assignments will be turned in through D2L, except for the in-class attendance assignments.
- Weekly assignments:
  - These can be found in D2L under the content section of the course and are organized by class week. The file named “Work for Week X” will have the questions that need to be answered as well as the relevant reading for the week.
  - You will submit your answers in the “Assignment” folder in D2L corresponding to the proper week.
  - Your responses to the questions should be thorough and be written in complete sentences. A cursory response to most of the answers will result in a “C”. Thoughtful responses to most of the answers will result in a “B”. Answers that clearly bring in aspects of the readings and lectures will result in an “A”. If you are unsure that your writing is at the appropriate level, please meet with me and I will be happy to help.
- Paper: Students will write a 1500-2000 word paper (3-4 pages single spaced). Students will identify an environmental, health, or social problem caused by energy use. Describe the problem and how it came to be, then discuss ways that the problem can be mitigated or adapted to. A crucial theme of this paper will be to discuss not just technological or scientific solutions, but rather what else is needed (economic changes, social changes, etc,) and how those other changes will help address the problem. As we will learn in this class, scientific and technological solutions are often not the solution or certainly are only one aspect of the solution. Students are expected to include five citations. It is expected that some of these citations will come from the class readings, but at least two of them need to come from reputable outside sources. We will discuss some possible reputable sources in class, but students are also encouraged to speak to me in advance of the due date to check if their sources are good ones. As for formatting, use whatever you are most comfortable with. I do not care if you are use APA, Chicago, or whatever style.`

**Attendance:** Hartwick requires that students attend all classes and that faculty take attendance. Attending class is crucial to your success in this class. Attendance tip: I encourage you to make a friend in class and support each other to attend, be on time, and submit assignments. Of course, if you have a documented illness or there’s a death in the family, your absence will be allowed. You are expected to find out what you missed and complete all missed work. Please take advantage of my office hours. If you need to miss a class, please email me **before** you miss the class.

### **Academic Honesty**

Students are expected to know and abide by Hartwick’s policy on Academic Honesty, and to ask questions when they are unsure of what they need to do to ensure that their work remains clearly their own. Briefly, claiming others’ ideas as one’s own, or borrowing others’ ideas or language without providing proper credit, is considered plagiarism, which is a violation of academic dishonesty. If a student isn’t sure how to provide the proper credit for others’ ideas when using them in an assignment, they should ask the instructor. The Writing Center is also a great resource for this! Because charges of academic dishonesty can have serious consequences, the successful strategy is to seek help and ask questions before an assignment is due. I am confident that each of you is capable of meeting my expectations in this course. If you concerned about how well you are doing in this course, please come speak to me instead of considering academic misconduct.

The use of AI to answer questions in this class is strongly discouraged. Nothing I ask is beyond what any student at Hartwick can accomplish, nor is it designed to be onerous. If you decide to use AI to help generate ideas, you will

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need to cite what AI you used and what prompts you used (this is becoming a standard type of citation). Failure to cite AI will be treated like a failure to cite any other source. Finally, you alone are responsible for the content and if the AI spits out incorrect or facile responses, your grade will reflect that. Remember that AI is trained on what is found on the internet and the internet is filled with bad takes on climate, so beware.

#### **Academic Supports**

This campus provides extensive academic supports for students, and these supports are here to let students achieve the success that they are truly capable of. These supports include help academic issues, family issues, medical issues, food insecurity, etc. Most students access at least one of them, if not more, at some point in pursuit of their degrees. If you have any questions, please do not hesitate to ask me or your Success Coach

#### **Academic Accommodations**

Many students have visible or invisible disabilities, and the college is offers accommodations that allow them to achieve their full potential. Hartwick College is committed to upholding and maintaining all aspects of the Federal Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. If a student with a disability wishes to request academic accommodations, they should contact Lara Sanford, Director of AccessAbility Services, at [sanfordl@hartwick.edu](mailto:sanfordl@hartwick.edu) , or [AccessAbilityServices@hartwick.edu](mailto:AccessAbilityServices@hartwick.edu). If you have a documented disability, or suspect they you have an undocumented disability, contact them as soon as possible. Any information regarding a student’s disability will remain confidential.

#### **TITLE IX/SEXUAL MISCONDUCT**

Hartwick College is committed to equal opportunity and providing a safe community free from all forms of sexual misconduct including sexual/gender-based harassment, discrimination, dating or domestic violence, stalking, sexual exploitation, and sexual assault. If you wish to make an official report to the College or have questions about the College’s policy and procedures regarding sexual misconduct, please contact the Title IX Coordinator, Michael Arno, at [arnom@hartwick.edu](mailto:arnom@hartwick.edu) or (607) 431-4293. Online reporting and policy information is available at <https://www.hartwick.edu/about-us/employment/human-resources/title-ix>

If you wish to speak confidentially about an incident of sexual misconduct, please contact one of the following resources: Perrella Wellness Center, Health - (607) 431-4120, or Counseling – (607) 431-4120; or Opportunities for Otsego’s Violence Intervention Program – (607) 432-4855.

All other employees, including faculty, are responsible employees at Hartwick College and are required to report any incident of sexual misconduct that is personally reported to them to the Title IX Coordinator so that support and resources can be provided for all parties.

#### **COVID-19**

Any COVID-19 updates will be provided on the College website (<https://www.hartwick.edu/about-us/covid-19-updates/>). Instructors will communicate with students about any specific adjustments that are being made to their courses, such as modality of instruction, expectations for participation, and any changes to assigned work; students should check their Hartwick email accounts frequently for information from their instructors.

#### **COUNSELING**

All of us need a support system, and many students benefit from the use of counseling services. As a student you may experience a range of issues that can cause barriers to learning, and there is no point in trying to go it alone. These might include strained relationships, anxiety, stress, alcohol/drug problems, feeling down, or loss of

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motivation. The Counseling Center is available to help with these issues and may be reached by calling (607) 431-4420 or emailing [counselingcenter@hartwick.edu](mailto:counselingcenter@hartwick.edu). Counseling services are free of charge and confidential. Heart, a peer counseling service, is also available if you are more comfortable talking with a fellow student who has been trained to offer information and support in a safe, non-judgmental atmosphere. To reach a Heart Peer Counselor, call (607) 431-5050 or email [heart@hartwick.edu](mailto:heart@hartwick.edu). I am also happy to lend an ear if need be.

Official policies can be found below

Academic Honesty: <https://www.hartwick.edu/academics/student-services/academic-affairs/academic-policies/>

Title IX/Sexual Misconduct: <https://www.hartwick.edu/about-us/employment/human-resources/title-ix/>

Covid-19: <https://www.hartwick.edu/about-us/covid-19-updates/>

Counseling: <https://www.hartwick.edu/campus-life/health-wellness/counseling-center/>

Counseling Center Phone: (607) 431-4420; Heart Peer Counselors Phone: (607) 431-5050.

**Course Schedule:** The readings and the work for the week are found in separate folders in the Content section of D2L. Within each week's folder is a document labeled "week x" that includes the reading and weekly questions. Additional documents for the week are also available within the folder.

All assignments will be turned in under the appropriate folder in the Assignment section of D2L. All assignments are due by 11:59PM on the appropriate date. Late work will be accepted until 11:59PM, Jan. 27.

- **Inclement Weather Plans:** Should the campus be closed due to weather; I will upload a video lecture to D2L and notify you by email that it is there.
  
- **Course & College Policies and Campus Resources**
  - **Academic Honesty:** <https://www.hartwick.edu/academics/student-services/academic-affairs/academic-policies/>
  - **Title IX/Sexual Misconduct:** <https://www.hartwick.edu/about-us/employment/human-resources/title-ix/>
  - **Covid-19:** <https://www.hartwick.edu/about-us/covid-19-updates/>
  - **Counseling:** <https://www.hartwick.edu/campus-life/health-wellness/counseling-center/>  
Counseling Center Phone: (607) 431-4420; Heart Peer Counselors Phone: (607) 431-5050.