

# **GEOS 197GB: Twenty-first Century Challenges: Energy, Food, and Water Fall Term, 2016**

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Office Hours: By appointment or stop by anytime

Class Meeting Times: 10:00-11:30, TTh, Rm. 223, Julian S&M

Required Books: *They Say I Say*, 3<sup>rd</sup> edition by Gerald Graff and Cathy Birkenstein © 2014  
(ISBN 978-0-393-93584-4)

*Afterburn: Society Beyond Fossil Fuels* by Richard Heinberg © 2015  
(ISBN 978-0-86571-788-6)

*The Big Thirst: The Secret Life and Turbulent Future of Water* by Charles  
Fishman © 2011 (ISBN 978-1-4391-0208-4)

*Full Planet, Empty Plates: The New Geopolitics of Food Scarcity* by Lester R.  
Brown © 2012 (ISBN 978-0-393-34415-8)

Recommended Book: *A Pocket Style Manual*, 7<sup>th</sup> edition by Diana Hacker and Nancy Sommers  
© 2015 (ISBN 978-1-4576-4232-6)

## **Course Goals**

This first-year seminar is designed to help you develop some of the skills that you will need to be successful in college. The seminar is built around the topics of energy, food, and water. As we explore these topics through reading, writing, speaking, and listening, you will develop the following skills that will enable you do good, honest, college-level work:

- ✓ Reading carefully
- ✓ Taking good notes and studying effectively
- ✓ Asking good questions and contributing to a discussion
- ✓ Communicating your ideas in written form
- ✓ Speaking well in front of an audience
- ✓ Avoiding plagiarism

I will work with you individually and as a group to develop these skills, and I will provide plenty of feedback to help you along.

## **The Topic**

The key challenges facing humanity during the twenty-first century include: (1) providing energy for the human population while mitigating environmental damage and climate change; (2) feeding a growing population that is expected to number between 9 and 11 billion people during the second half of the twenty-first century; and (3) providing adequate freshwater resources in a world that will become hotter and drier. Energy, food, and water are inextricably connected. Energy is needed to grow food and pump water, but our present reliance on carbon-based fossil fuels as energy sources is the main driver of climate change that will negatively impact agricultural areas and freshwater resources. These connections will be explored throughout the semester. Furthermore, the era of cheap, abundant energy provided by fossil fuels will end during your lifetime. Major changes in human civilization will occur as we strive to make the transition from non-renewable, polluting fossil fuels to renewable and sustainable alternatives. Some doubt that we can make this transition and predict that modern industrialized societies will begin to collapse in the not too distant future. Others believe that technological

innovation, that has been the hallmark of human existence, will enable us to make this transition successfully. Whatever the outcome, make no mistake about it, the way we live, work, play, and interact is going to change drastically during this century. This is an interdisciplinary topic. It involves science, politics, economics, sociology, demographics, and many other disciplines. No matter what your interests are, you have to be interested in this.

### **Components of the Seminar**

The seminar consists of several components: reading, discussion, writing assignments, and oral presentations. We will meet twice a week on Tuesday and Thursday for 90 minutes. This time will be spent discussing the books that we are reading, working on written and oral communication skills, making oral presentations, working on writing assignments, and viewing DVDs.

Reading: We will read four books: one that focuses on energy, one that focuses on water, one that focuses on food, and a fourth book that focuses on writing skills.

Discussion: As you are reading the books, think about what you are reading. Take notes about anything that you might want to discuss with the seminar group. What did you find to be interesting? Why? What did you not understand? Is there anything that you disagree with and want to challenge? Are claims supported with data? Can you find any information from another source that supports or contradicts a claim? What position does the majority of the scientific community hold? Politicians? Economists? Are the arguments balanced and logical? Are alternate viewpoints considered? Are references provided and are they from reliable sources?

Writing Assignments: You will have four writing assignments during the semester. The general topics that you will write about are energy (2 papers), water (1 paper), and a topic of your choosing (poster presentation to the DePauw community). The papers are sequenced through the semester so that you become progressively better at analyzing information and communicating through writing. Your four papers will be in the “public domain,” meaning that they will be read not only by me, but by other students in the seminar. Each paper will involve a first draft, editing of the first draft based on comments from your peers and from me, and a final draft. Class time will be spent on writing instruction using excerpts from the first drafts of your papers. We will work as a class to rewrite these excerpts.

Oral Presentations: You will compose Power Point presentations about individual topics that you will present to the seminar. The purposes of the presentations are to help you develop your oral presentation skills, and to present information and your ideas to the seminar group. The oral presentations will be based on the papers that you are writing. Hopefully, a synergistic effect will develop between your writing, your presentations, and our discussions. Writing will help you to learn, understand, and explore the material on your own; oral presentations will enable you to convey your knowledge and ideas to the seminar group; discussions will stimulate deeper understanding, further analysis, new ideas, and alternative view points.

I will provide detailed written assignments for each of the writing and speaking assignments.

## Course Outline and Tentative Schedule

<u>Day</u>	<u>Topic</u>
	PART I: Energy
8/25	Introduction; Plagiarism Discussion; Writing Assignment #1
8/30	Academic Resources
9/1	Discussion day: <i>They Say I Say</i> pages 1-51 & <i>Afterburn</i> pages 1-64
9/6	Discussion day: <i>They Say I Say</i> pages 1-51 & <i>Afterburn</i> pages 1-64
9/8	Writing Assignment #1 is due at the beginning of class (3 copies, one side only, stapled); Revision workshop
9/13	DVD day!
9/15	Final version of Writing Assignment #1 is due at the beginning of class (1 copy, one side only, stapled); Writing Assignment #2; Internet resources
9/20	Discussion day: How to Give a Good Oral Presentation; Writing Assignment #2; <i>They Say I Say</i> pages 55-101
9/22	Discussion day: <i>They Say I Say</i> pages 55-101 & <i>Afterburn</i> (Ch. 7, 8, 12, 14, & 15)
9/27	Discussion day: <i>They Say I Say</i> pages 55-101 & <i>Afterburn</i> (Ch. 7, 8, 12, 14, & 15)
9/29	Oral presentations: Writing Assignment #2
10/4	Writing Assignment #2 is due at the beginning of class (3 copies, one side only, stapled); Revision Workshop
10/6	DVD day!
10/11	Field trip to the Greencastle water plant
10/13	Final version of Writing Assignment #2 is due at the beginning of class (1 copy, one side only, stapled); Writing Assignment #3; Writing Workshop
	<b>Fall Break – Saturday, October 15 through Sunday, October 23</b>

## Part II: Water

- 10/25 Library resources for Writing Assignment #3 - Caroline Gilson (meet in Julian 201)
- 10/27 Discussion day: *They Say I Say* pages 105-159 & *The Big Thirst* pages 1-64
- 11/1 Oral presentations on Writing Assignment #3
- 11/3 No class. Use this time to work on your papers.
- 11/8 Writing Assignment #3 is due at the beginning of class (3 copies, one side only, stapled); Revision workshop
- 11/10 Field trip to Greencastle Waste Water Treatment Plant
- 11/15 Writing Assignment #4; Introduction to Illustrator (meet in Julian 201)
- 11/17 Final version of Writing Assignment #3 is due at the beginning of class (1 copy, one side only, stapled); Field Trip to the Campus Farm
- 11/22 Discussion day: *The Big Thirst* (entire book)

**Thanksgiving Recess – Wednesday, November 23 through Sunday, November 27**

## Part III: Food

- 11/29 Group work on posters (meet in Julian 201)
- 12/1 Group work on posters (meet in Julian 201)
- 12/6 Discussion day: *Full Planet, Empty Plates* (entire book)
- 12/8 Student opinion forms; Print posters (meet in Julian 201)

**Poster Presentations: Friday, December 9, 4:00-5:00 p.m., Julian Atrium**

## Grading

You will receive grades for each component of the course and these grades will be weighted to determine your course grade in the following manner:

Discussion	20%
Writing Assignment #1	10%
Writing Assignment #2	15%
Writing Assignment #3	20%
Writing Assignment #4	25%
Speaking Assignments	10%

A  $\geq$  90%; B = 80-89%; C = 70-79%; D = 60-69%; F < 60%

**Writing assignments:** The quality of all parts of your writing assignments – timely submission of hard copies, quality of first drafts, peer reviews, quality of revised drafts – will figure into the grade for each assignment.

**Discussion grades:** I will use the rubric at the end of the syllabus to assign a discussion grade for each discussion day.

## Expectations

**Notes:** You should take notes on most days and be ready to summarize ideas that come up during our discussions.

**Class discussions:** You should read all of the assignments thoroughly and take notes so that you are prepared to engage in the discussions. I encourage you to respond to what others say and to ask questions when you cannot follow an argument. During discussions, you are not talking to me. You are talking to the entire group. The best discussions are those that do not involve me.

**Late policy:** All papers must be turned in on time at the start of class. You must plan carefully. Print papers the night before and use a good printer. Staple all papers. Late papers will be penalized 10% per day that it is late.

**Electronics:** Set cell phones to vibrate and put them away. Bring your laptops to class every day, but only use them if I give you permission.

## Class Policies

1. It is the policy and practice of DePauw University to provide reasonable accommodations for students with properly documented disabilities. Written notification from Student Disability Services is required. If you are eligible to receive an accommodation and would like to request it for this course, please contact Student Disability Services. Allow one week

advance notice to ensure enough time for reasonable accommodations to be made.

Otherwise, it is not guaranteed that the accommodation can be provided on a timely basis.

Accommodations are not retroactive. Students who have questions about Student Disability Services or who have, or think they may have, a disability (psychiatric, attentional, learning, vision, hearing, physical, medical, etc.) are invited to contact Student Disability Services for a confidential discussion in Union Building Suite 200 or by phone at 658-6267.

2. Regular and punctual attendance is expected and monitored. Poor attendance and preparation for class will result in refusal on my part to give you reasonable attention and guidance in make-up work. I realize that an occasional absence is necessary, particularly if you are sick. You also may need to miss class because of an extracurricular activity that contributes to your overall education, career objective, or well-being (e.g., field trip for another class, job interview, professional conference, workshop participation, artistic performance, doctor appointment, student-athlete participating in a sporting event). Send me an e-mail message either before the missed class or soon after the missed class so that I know your reason for missing class. See the Student Handbook for the University policy on attendance:

<http://www.depauw.edu/handbooks/academic/policies/attendance/>

3. Cell phone use during class is not allowed. Use of your cell phone is considered disruptive behavior because it distracts the students around you and it distracts me. Turn your cell phone to vibrate and put it away so that it is out of sight for the entire class period. Placing your cell phone in the opening beneath the table is not considered out of sight. My phone is set to vibrate in the event of an emergency message broadcast from DePauw Public Safety. There may be rare instances where you might expect an important call during class (e.g., illness in the family; potential employer). Alert me before class starts that you are expecting an important call and you may leave class should you need to use your phone.
4. Food is not allowed in the classroom, however you may bring a beverage to class. Please clean up the table and your seating area after class so that the area is clean for the next person to use the seat.
5. Remain in your seat throughout the class session. Use the restroom before you come to class and do not move about the classroom during class. In rare instances, you may need to visit the restroom during class. Please feel free to do so, but don't make it a daily habit.
6. Academic dishonesty is not tolerated. Academic dishonesty includes, but is not limited to, cheating, fabrication, facilitating academic dishonesty by another student, and plagiarism. All students should read and understand DePauw University's Academic Integrity policy, which may be found at:

<http://www.depauw.edu/handbooks/academic/policies/integrity/>

Violations of the academic dishonesty policy will be handled in accordance with established University procedures as described in the Academic Integrity policy.

### **Criteria for Assigning Discussion Grades**

On each discussion day, you will receive a discussion grade based on the following criteria.

- A** (90-100) You initiated or contributed to a discussion that led to a deeper or broader understanding of the subject matter; you raised new issues or extended the discussion into related areas; you were able to clearly defend your position on an issue with appropriate evidence and supporting argument; you challenged someone else's position, belief, or assertion, with contrary evidence or argument.
- B** (80-89) You participated by answering or asking questions of a factual nature; your comments showed that you completed the reading assignment, that you followed the general trend of the discussion, and that you understood the topics/issues being discussed.
- C** (70-79) You were in class and seemed interested in the discussion. You participated in the discussion just enough to show that you completed the assigned reading.
- D** (60-69) You showed up for class, but you really didn't say much of anything. You were only marginally engaged in the discussion and consequently, it was hard to assess your understanding of the material.
- F** (0) You weren't in class, either physically or mentally.