**GS 130**

**Global Seminar: Energy**

Antioch College, Summer 2015

Thursdays, 2:30 – 5:20pm

McGregor 113

**Instructor:** Barbara Sanborn  **Instructor:** Jessica D’Ambrosio

Office: Arts & Sciences 214C Office: South Hall 314

Office Phone: 937-319-0109 Phone: 614-570-0034

Email: bsanborn@antiochcollege.org Email: jdambrosio@antiochcollege.org

Office Hours: MWF 11:30-1, and by appt Office Hours: MTWR 10-3, and by appt

**Additional small group discussion leaders:**

Flavia Sancier, fsancier@antiochcollege.org

Elecia Harvey, eharvey@antiochcollege.org

Kevin Mulhall, kmulhall@antiochcollege.org

**Course materials:** Articles and assignments will be posted on the Canvas site.

**Curriculum Catalog Course Description:**

Where does our energy come from? What are the impacts and costs— human, environmental, social, economic, and political—of extracting different forms of energy? What happens to the waste products and by-products of energy extraction and use? How should we plan for energy-related environmental disasters? For energy scarcities? What are the options for alternative energy sources? What are the factors that influence energy consumption? This course provides students with an overview of some of the current social, political, and scientific issues informing the topic of energy within a global context. It will introduce students to major forms of contemporary energy generation, including coal, oil, natural gas, and nuclear fission. Students learn about the production processes involved in various forms of energy extraction and will discuss some of the pressing contemporary economic and political debates around the production, consumption, and conservation of energy. This course will include guest speakers, documentary films, and field trips.

**GS 130 2015 Course Description Addendum:** The flow of energy drives natural and human systems. Our course takes place in the context of a growing awareness of human influence on Earth’s energy balance as reflected in the global climate system. Through a systems approach, students will explore and develop working knowledge and critical skills needed to evaluate scenarios for mitigation and adaptation towards a sustainable energy future. Making the connections between social justice and climate justice will be emphasized.

**Course Learning Outcomes**

Students who complete this course satisfactorily will be able to:

1. Demonstrate the ability to communicate effectively and think critically about central issues related to energy and climate change.
2. Reflect on the ethical and economic needs, demands and impacts of human and environmental energy systems on personal, local and global levels.
3. Understand multiple cross-cultural, comparative, political, and historical perspectives related to energy and climate.
4. Demonstrate the ability to connect local and global issues related to energy and climate change by researching a particular energy-related concern in some depth and be able to articulate its social, political, and scientific implications.
5. Demonstrate the ability to imagine and work towards creative solutions towards a sustainable energy future.
6. Recognize and articulate climate justice and social justice issues as they relate to energy and climate change.

**Liberal Arts Learning Outcomes**

1. Through worksheets, assignments, and final projects, students gain an understanding of energy and climate change, the needs and demands for it, multiple ways in which energy is captured/created, and myriad social and political implications of energy consumption. **(KI)**
2. Through worksheets and assignments students will demonstrate an ability to problem-solve, create and innovate, both independently and collaboratively. (**SI)**
3. Through reflection papers, students will demonstrate an ability to evaluate knowledge and evidence in a comprehensive and rational manner and to analyze, construct, and criticize arguments. **(CT)**
4. Through final projects, students will demonstrate a capacity to adapt knowledge, skills and responsibilities to new settings and challenges and to reflect on the personal and social significance of learning as a guide toward a purposeful future. **(DA)**
5. Through in-class discussions students will demonstrate an ability to engage as an active citizen in ethical and civil dialogue within a participatory, multicultural society concerned with the care of the planet’s environment and all that resides within it. **(SE)**
6. Through course readings, class discussion, reflection papers, and projects, students will demonstrate development and effective expression of numerical and graphical information, ideas and arguments in writing, purposefully prepared presentations. **(WC, OC, QC)**

**Basis of Evaluation**

I. Final Project 300 points (30%)

II. Worksheets & Small Projects 250 points (25%)

III. Reflection Papers (3) 150 points (15%)

IV. In-Class Participation 200 points (20%)

V. Attendance 100 points (10%)

**Total 100 %**

**Bonus Points: INTEGRATE Pre-/Post-Surveys 20 points each**

**I. Final project presentations (300 Points)**

All students are required to complete a final project and to present their results during a public symposium at the end of the term. This can be considered a signature assignment for the course. This project will involve some type of research or activity, about which the students will give a 20-minute oral presentation with visual aids (such as PowerPoint, but other formats are also acceptable). Projects may also include additional items (surveys to collect data, informational leaflets, research paper, etc.) as befits the project. All students will be required to submit project updates in Week 4 and Week 8; a Final Project Proposal in Week 6; and a literature review and abstract summary in Week 10. More information will be provided in the small group sessions and on Canvas.

**II. Worksheets & Small Projects (250 points)**

To help students prepare for guest speakers and topics of the week and to support students’ guided inquiry throughout the course, we will assign readings, videos, presentations and guided discussion for students to view/complete outside of class. Worksheets will be completed in-class to synthesize knowledge gained from these materials, guest speakers, and small group discussions.

Students will complete the Lifestyle Project and the Carbon Footprint Project during the quarter. These are out-out-class homework assignments that apply concepts learned in the course. More information on these assignments will be posted on Canvas.

**III. Reflection papers (150 points)**

All students are required to write 3 reflection papers throughout the quarter including a final 500 to 750-word reflection paper that focuses on the learning they have experienced in this class. Reflection papers will relate to course topics, how the various course themes are interconnected, and how you feel you could get involved in positive change around these issues, should you choose to do so.

Reflection papers must use the following format:

1) Minimum of 500 words long (as long as you need to convey your ideas in a concise and complete manner).

2) Single spaced, 12 point standard font, 1 inch margins

3) Complete sentences, proper English, and an academically serious attitude.

More information on reflection papers will be posted on canvas.

 **IV. In-class Participation (200 points)**

Learning requires active participation for it to be meaningful. Participation grades will be based on the following:

1) Active listening and engagement: Students are expected to be alert, interested, and positive during class and small group discussions—not asleep, surfing the web, etc.

2) Willing participation: Students are expected to contribute meaningfully to the discussion every class period, by asking questions, answering questions, and working with their peers.

3) Respect: Students are expected to be respectful of other’s viewpoints even when beliefs very different from their own are expressed, to listen to others, and to think before they speak.

4) Etiquette: Students are expected to have proper courtesy. Students are expected to refrain from personal conversations during class, to turn off all electronic devices not specifically being used for note taking, and to clean up after themselves.

**V. Attendance (100 points)**

Attendance will account for 10% of your final grade. Students are expected to attend all class sessions and attendance will be taken daily. Multiple absences, tardiness, etc. will have a significant negative impact on the final grade and may prevent the student from passing the course.

 **Academic Honesty Policy**

Community members should understand that academic dishonesty is harmful to the Antioch College Community and its reputation. The college expects high standards of behavior and that all Community members act responsibly and honestly. For a full discussion and definition of the College's Academic Honesty Policy, please see the curriculum catalog.

 **ADA Policy**

If you believe you qualify for course adaptations or special accommodations under the Americans with Disabilities Act, it is your responsibility to contact the Center for Academic Support Services in Pennell House, 2nd floor, and provide sufficient documentation. Once students have registered their disability with the Center for Academic Support Services, students will be given a V.I.S.A. (Verification of Individual Student Accommodations) Letter. It is the responsibility of the student to obtain their letters from the office and provide them to each instructor. The V.I.S.A. must be updated and obtained each term due to the change of courses, which may warrant accommodation adjustments. If you already have a documented disability or other condition registered through this office, please notify the instructor immediately and meet with the Director in the Center for Academic Support Services to receive letters of accommodation.

**Incomplete Policy**

An “incomplete grade” is a temporary indicator assigned when a written request has been initiated and submitted by the student and approved by the faculty member. Verbal approvals for incompletes are not acceptable. The faculty approval of the request indicates that requirements have not been completed by the student for good cause or some other circumstance beyond their control that prevented the student from completing the work during the term. An incomplete is not automatic or appropriate for students who have not managed to complete coursework in a timely manner. A student should be passing the class before a faculty considers approving an incomplete grade. No faculty member is required to issue an incomplete. It is the student’s responsibility to request an incomplete in writing, complete any work or expectations identified by the faculty member, and ensure that the grade has been changed. Requests for Incomplete Grade Forms are available in the registrar’s office.

**Add/Drop Policy**

All students are able to add and drop classes during a specified period of time during each term. Students should refer to the Curriculum Catalog and the academic calendar to understand the policies and conditions for adding and dropping.

**Course Calendar (subject to change):**

|  |  |  |
| --- | --- | --- |
| Date | **Topic** | **Assignment Due** |
| Week 1 7/09 | **Introduction and Course Overview:***Sanborn and D’Ambrosio***Energy awareness:** *Johanna Kohout*, *To Shin Do Instructor;***Environmental Dashboard Project**: *Roi Qualls, Antioch College* | **INTEGRATE Pre-survey Bonus** |
| Week 2 7/16 | **Global Energy Balance & Climate Change:***David Finster, Professor of Chemistry, Wittenberg University*  |  |
| Week 3 7/23 | **Global Politics & Economics of Energy:***Samantha Williams, Attorney and Policy Advocate, National Resources Defense Council;**Sean Payne, Professor of Political Economy, Antioch College* | **Reflection Paper 1 DUE** |
| Week 4 7/30 | **Ecological and Social Justice Issues:***Joe Cronin, Professor of Philosophy, Antioch University Midwest;**Emily Steinmetz, Professor of Anthropology, Antioch College;**Emmett Pepper, WV Citizen Action Group* | **Final Project Update 1 DUE****Carbon footprint project** **DUE** |
| Week 5 8/6 | **Energy, Climate Change and Sustainable Development:***Bob Brecha, Professor, Dept. of Physics and Renewable and Clean Energy Program, University of Dayton*  |  |
| Week 6 8/13 | **Moving Towards Fossil Free Solutions I:***Bob Steinbach, Dir. of Alternative Transportation, Miami Valley Regional Planning Commission;**John Caraher, Professor of Physics, De Pauw University;**Lise Laurin, Founder & Director, Earthshift* | **Final Project Proposal DUE** |
| Week 78/20 | **Moving Towards Fossil Free Solutions II:***Reggie Stratton, Facilities Manager, Antioch College;**Brett Henderson, Solar Power and Light* |  |
| Week 8 8/27 | **Moving Towards Fossil Free Solutions III:***Faith Morgan, Passive House Revolution* *filmmaker;**Cindy Frantz, Professor of Psychology, Oberlin College* | **Reflection Paper 2 DUE****Final Project Update 2 DUE** |
| Week 9 9/3 | **Spirit and Art of Energy:***Julie Pies and Patti Mielziner, Therapists, Body Wisdom;**Lara Mitias, Professor of Philosophy, Antioch College;**Keith Grzelak, Tai Chi Instructor* |  |
| Week 109/10 | **Leadership for Global Energy Transition:***Jim Merkel, Global Living Project* | **Final Project Abstract and Literature review Due****INTEGRATE Post-survey Bonus** |
| Week 119/17  | **Presentation of final projects** | **Reflection Paper 3 Due** |