

SYLLABUS  
SUSTAINABLE ENERGY  
GEO 340 Section 01  
Spring 2020  
MWF 11:00-11:50am, Popplewell 101

**Instructor:** Dr. Dawn M. Drake

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**Phone:** 816-271-4161

**Office Hours:** M 3:00-4:00pm; T 11:30am-1:30pm, W 8:30am-9:30am; and R 2:00-3:00pm or by appointment (unless otherwise posted by email or on my door)

Students are encouraged to seek help from the professor if you have any questions about assignments, readings, or materials covered in class or the readings. Appointments are available for students who cannot be accommodated within the listed office hours. Weekend appointments can also be scheduled in extreme circumstances. Please do not wait until you are overwhelmed to seek help.

**Recommended Text:**

1. Reisser, Wesley and Colin Reisser. *Energy Resources: From Science to Society*. New York: Oxford University Press, 2019.

**Course Objectives:** Sustainable Energy is designed as an upper-level seminar-style course to expose you to both the benefits and the drawbacks of various types of energy-generating sources available today. We will also discuss some of the potential future technology to generate energy. In each section we will discuss the merits and weaknesses of each source as well as asking the question, is it sustainable? While there will be mini-lectures on the technology, there will also be discussion. Students in the class will become the resident experts on different energy sources, creating various promotional materials throughout the semester, culminating in a final energy summit pulling together everything we have learned this semester.

Additionally, the content of this course, as established by the professor, satisfies the following thematic standards suggested by the National Council for Social Studies (for detailed information on all ten themes refer to [www.socialstudies.org/standards/2.0.html](http://www.socialstudies.org/standards/2.0.html)):

- |                                              |                                          |
|----------------------------------------------|------------------------------------------|
| 1. Time, Continuity, and Change              | 5. Individuals, Groups, and Institutions |
| 3. People, Places, and Environments          | 6. Power, Authority, and Governance      |
| 7. Production, Distribution, and Consumption | 9. Global Connections                    |

**Course Evaluation:** Your final grade in this class will be based on your performance and participation in class as well as numerous projects, capped by the final energy summit during the final exam period.

Class participation will account for up to 75 points of the grade. You will earn one point for each day you are in class (37 class periods). Additional participation points will be earned for participating in discussions and contributing to class by asking or answering questions. Various projects designed to educate your classmates on your selected energy source will account for another 260 points. The final energy summit will account for the final 40 points as an additional participation and evaluation of knowledge assessment. The following point scale will be used to calculate your final grade for the class.

375-337 = A  
336-300 = B  
299-262 = C  
261-225 = D  
224-0 = F

I will not discuss individual grades in the classroom. That must be done in my office. I also do not automatically bump up borderline grades. If you earn 336 points, you have earned a B, not an A. If you earned 337 points, you would not want me to bump you down to a B instead of the A that you earned. Do not expect to receive a higher grade than you earned and do not ask for that consideration. Also be aware that an A is only awarded in this class for extra effort. If you turn in the bare minimum work, do not expect to receive that honor. Students who earn A's are attentive, have good attendance records, prepare for lecture, and participate in discussions. They also put extra effort into assignments. Grade appeals should be done following procedures outlined in the MWSU Student Handbook and the Department of History and Geography. For more details see <https://www.missouriwestern.edu/studentaffairs/wp-content/uploads/sites/292/2014/02/StudentHandbook2016.pdf>.

**Extra Credit:** The Department of History and Geography **does not allow** individual students to perform extra credit work to improve their grade, but opportunities will be offered to the whole class throughout the semester.

**Early/Late Work:** Late work will be penalized, but it is always better to turn work in late rather than not at all. For each day an assignment is late (except for weekends), one point will be deducted, to a maximum of half the value of the assignment. Early work will be accepted. Presentations such as the poster and video may NOT be submitted late. **No assignments will be accepted via email.**

**Attendance Policy:** "Missouri Western State University has the expectation that students should be active participants in their coursework. Regular class attendance is considered a key element of participation and an essential part of the educational experience" (MWSU Student Handbook). Attendance will be taken at the beginning of class throughout the semester. If you are late, you will be counted as absent. **Attendance will be considered as a direct variable in your final grade.** Failure to attend class will also result in a penalty born out in a student's inability to perform well on assignments and discussions. Assignments not turned in on time due to absence from class are subject to point deductions. Students who only attend class to turn in assignments will be reported to MWSU as not attending class.

**Weather Policy:** In the event that the instructor is unable to make it to a scheduled class session, you will be notified through your university email account, when possible. The email will contain instructions for what you are to do in lieu of coming to class that day. Typically, class will be held if the University is open. Campus closures will be sent through the Griffon Alert system. It is your decision to travel to campus in adverse weather. If you are uncomfortable driving, do not risk your life. You will be granted opportunities to turn in assignments without penalties and make-up exams.

**Students with Disabilities:** Students seeking accommodations must first provide documentation of needed accommodations to the Accessibility Resource Center (ARC) located in Eder Hall, Suite 203. Once accommodations have been approved by the ARC, students are responsible for notifying their instructors of those accommodations. This should be done within the first two weeks of classes. Accommodations are not retroactive.

**MWSU Policy on Academic Honesty:** Academic dishonesty is defined in the Student Code of Conduct as engaging in acts which include (but not limited to):

- a) Falsifying documents or academic records;
- b) Any activity that violates the University's Academic Honesty Policy including (but not limited to) any instance of plagiarism, cheating, seeking credit for another's work, using any electronic device to either improperly store information for an exam or to transmit portions of questions or answers to other students, or allowing another student to take your exam for you.

Students are required to do their own work. Using work done by other students is cheating. Posting, downloading, or otherwise using or disseminating class study guides, exercises, or exam questions found on the various online "study sites" is cheating. Violations of academic honesty may result in a failing grade on the assignment, failure in the course, or expulsion from the University. When a student's grade has been affected, violations of academic honesty will be reported to the Provost or designated representative on the Academic Honesty Violation Report forms. Please see the Student Handbook for specific activities identified as violations of this policy and the student due process procedure. For information about Academic Regulations and Standards Committee, go to <https://www.missouriwestern.edu/facsenate/academic-regulations/>.

**Classroom Recording Policy:** The course materials that I author, including, but not limited to, PowerPoint slides, Panopto recordings, Canvas screenshots, class handouts, web-based and social media content, and course syllabi, are my intellectual property and are protected by copyright law. Students in the course may download and make copies of my course materials for the course student's own use. This includes selling materials to sites such as Course Hero or Study Blue. Additionally, disseminating class content online violates copyright. Students who disseminate course materials online may be liable for monetary damages.

Students are allowed to record course proceedings for their personal use. In fact, it is encouraged. Publicly reproducing or distributing these materials or enabling others to do so without my express written consent is strictly prohibited. Failure to comply with this direction may constitute a violation of the Student Code of Conduct as outlined in the Student Handbook and result in disciplinary action by the University.

**Classroom Decorum:** I expect you to respect yourself, the professor, and your fellow students by acting appropriately in the classroom. If you are going to sit in class and text message or read outside material, please do not come to class. If you are chronically disruptive to the classroom or the professor, you will be asked to leave. See the Student Handbook section concerning Student Code of Conduct for additional details. To that end:

- All cell phones, pagers, and headphones must be turned off and stored during lectures.
- Students may use laptops/tablets for note taking only, assuming they do not disturb others in the class. Other computer use is not permitted. Any non-class related computer usage will result in the student having his/her classroom privileges revoked for the remainder of the semester.
- No disruptive conversations during class. If I have to stop for you, you will be asked to leave.
- No reading of outside materials is permitted during lecture.
- Please be on time for class.
- If you must leave class before the end of lecture, let the professor know in advance. Do not begin to pack up before the professor finishes lecture.

**A Note on Harassment, Discrimination and Sexual Misconduct:** Consistent with its mission, Missouri Western seeks to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX and University policy prohibit harassment, discrimination and sexual misconduct. Missouri Western encourages anyone experiencing harassment, discrimination or sexual misconduct to talk to someone from the Campus and Local Resources list found in the Student Handbook about what happened so they can get the support they need and Missouri Western can respond appropriately.

There are both confidential and non-confidential resources and reporting options available to you. Missouri Western is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, see the MWSU sexual-misconduct policy

Students have received information via email regarding training regarding Title IX. Student employees may have additional required training. Please follow the link in the email sent to your MWSU student account to complete the training. Students who do not complete the training will receive a hold on their account, prohibiting future semester enrollment until the training is complete. These training courses will ensure that all students are appropriately educated about these important regulations.

**Pregnancy Resources:** Missouri Western State University does not discriminate against any student on the basis of pregnancy, parenting or related conditions. Absences due to medical conditions relating to pregnancy, and recovery from pregnancy, will be excused for as long as deemed medically necessary by a student's doctor. Students will be given the opportunity to make up missed work. Pregnant or parenting students needing assistance should contact the Title IX Coordinator, Adam McGowan at 816-271-4432 in Blum Student Union 228.

**Note on Course Content:** Geography as a discipline covers a broad spectrum of topics including some that might be uncomfortable or controversial to certain students. Feel free to discuss with the instructor any materials that concern you. The classroom is an open and inclusive place where all opinions will be heard. No one should be attacked for their opinions, but incorrect assumptions or opinions based on inaccurate information will be dealt with accordingly.

**Note that this syllabus acts as a contract. If you remain in the class, you are responsible for the policies contained herein. The professor will inform you of any policy or scheduling changes and it is your responsibility to adjust accordingly.**

**Tentative Class Schedule:** Note that this schedule is tentative and is subject to change at the professor's discretion. Please refer to the schedule for lecture titles, assignment due dates, events, and examination dates. It is your responsibility to make schedule changes.

Dates	Topics	Readings	Assignments
1/13	Introduction; Energy Basics	Chapter 1	
1/15	History of Energy; Current World Outlook	Chapter 1	
1/17	Sources of Electricity; Production and Consumption <b>Drop/Add Ends</b>	Chapter 2	
1/20	<b>NO CLASS – MLK DAY</b>		
1/22	What is Sustainable Energy?		<b>Select Energy Topics</b>

1/24	Challenges of Sustainable Energy; <i>The 11<sup>th</sup> Hour</i>		
1/27	<i>The 11<sup>th</sup> Hour</i>		
1/29	Traditional Biomass		
1/31	Traditional Biomass; Coal	Chapter 3	
2/3	Coal	Chapter 3	
2/5	Coal; Oil	Chapter 3 and 4	
2/7	Oil	Chapter 4	
2/10	Oil	Chapter 4	
2/12	Natural Gas	Chapter 5	<b>Informational Pamphlet Due</b>
2/14	<b>NO CLASS – LECTURE DELIVERED IN CANVAS</b> Alternative Coal and Oil Technology	Chapter 3 and 4	
2/17	Alternative Coal and Oil Technology; Fracking	Chapter 3-5	
2/19	Fracking; Nuclear	Chapter 5 and 6	
2/21	Nuclear	Chapter 6	
2/24	Nuclear	Chapter 6	
2/26	Hydroelectricity	Chapter 7	
2/28	Hydroelectricity	Chapter 7	
3/2	Wind	Chapter 8	
3/4	Wind	Chapter 8	
3/6	Designing an Effective Poster; Video Help		<b>Drawbacks Due</b>
3/9	<b>SPRING BREAK – NO CLASS</b>		
3/11	<b>SPRING BREAK – NO CLASS</b>		
3/13	<b>SPRING BREAK – NO CLASS</b>		
3/16	Wave and Tidal Energy		
3/18	<b>NO CLASS – LECTURE DELIVERED ON CANVAS</b> Wave and Tidal Energy		
3/20	Solar	Chapter 9	
3/23	Solar	Chapter 9	
3/25	Alternative Biomass	Chapter 10	
3/27	Bio Fuels <b>Last Day to Withdraw</b>	Chapter 10	
3/30	Bio Fuels	Chapter 10	
4/1	<i>Revenge of the Electric Car</i>		
4/3	<i>Revenge of the Electric Car</i>		
4/6	<b>NO CLASS - LECTURE DELIVERED ON CANVAS</b> Geothermal	Chapter 11	
4/8	<b>NO CLASS – LECTURE DELIVERED ON CANVAS</b> Geothermal	Chapter 11	
4/10	<b>POSTER SESSION</b>		<b>Posters Due</b>
4/13	Hydrogen	Chapter 12	
4/15	Hydrogen	Chapter 12	
4/17	Sustainable Energy Future?	Chapter 17	

<b>4/20</b>	<b>NO CLASS: Video Workday</b>		
<b>4/22</b>	Video Presentations		<b>Videos Due</b>
<b>4/24</b>	Video Presentations		

**Final Energy Summit:** Monday April 27, 2020 (2:30-4pm) in the regular classroom. **FAILURE TO ATTEND THE FINAL WILL RESULT IN AN AUTOMATIC “F” IN THE COURSE**