Course Syllabus for ERS 1101, Fall, 2020 (11/10/2020 version)
First Year Seminar: Energy, Environment, and Economy
3 credit hours
Section 01, 11:10-12:25 TR and Section 02, 11:00-11:50 MWF
Energy Innovation Center 201 (Encana Auditorium)
Online 8/24 – 12/11

Instructor information
Instructor: Professor Craig C. Douglas  Office: 227 Ross Hall
E-mail: cdouglas6@uwyo.edu  Office hours: MF 1-2 and W 11:30-12:30
Web Site: See WyoCourses and  or by appointment
http://www.mgnet.org/~douglas  Office phone: irrelevant

Course description
ERS 1101 Energy, Environment, and Economy is designed to meet the First Year Seminar (FYS) requirement of the 2015 University Studies Program. Through focused research and critical examination of diverse information, students will explore how energy resource use and development has shaped Wyoming: past, present, and future. The course will actively engage students in meaningful issues through an interdisciplinary approach to promote thoughtful and informed dialogue targeting Wyoming’s energy resource use and development.

University Studies Program (USP) requirements
This course fulfills the First Year Seminar (FYS) requirement of the 2015 University Studies Program. Students will critically examine and evaluate evidence, claims, beliefs, or points of view about meaningful, relevant issues. Students will be introduced to active learning, inquiry of pressing issues, and individual and collaborative processing of ideas through the First Year Seminar curriculum.

USP student learning outcomes (SLO)
1. Access diverse information through focused research, active discussion, and collaboration with peers.
2. Separate facts from inferences and relevant from irrelevant information, and explain the limitations of information.
3. Evaluate the credibility, accuracy, and reliability of conclusions drawn from information.
4. Recognize and synthesize multiple perspectives to develop innovative viewpoints.
5. Analyze one’s own and others’ assumptions and evaluate the relevance of contexts when presenting a position.
6. Communicate ideas in writing using appropriate documentation.

Additional course outcomes (ACO)
1. Understand the innovative technological advances that have transitioned energy resource use and development (local and global scales).
2. Apply critical thinking and problem solving skills to address multiple complex energy resource issues.
3. Communicate the impacts of energy resource use and development on Wyoming’s past, present, and future.
4. Collaborate with diverse team members to evaluate and inform a plan of action addressing a key Wyoming energy resource issue.
Seminar definition
A group of students under the direction of a mentor or faculty member at an educational location that meets regularly to exchange information and hold discussions [Based on dictionary.com]. From Latin, *seminarium*. We will meet 2-3 times a week to discuss energy related topics throughout the semester. When a topic is complete, class is over.

Reading (required and suggested)
- Additional readings will be taken from relevant and current scientific literature, trade journals, and local and national newspapers.

Teaching mode
*Zoom synchronous*: The class will be online at it’s specified time. All students are required to connect using Zoom. The classes will be recorded, posted to WyoCourses, and available for review for approximately 4-6 weeks.

*Do not come to the Encana Auditorium for in person teaching.*

Documentary
- *Let There Be Light*, a documentary on the state of the art for fusion energy production and research, aka 2017.

Student disabilities
If you have a disability (physical, learning, sensory or psychological) and need accommodating, you must register (and possibly provide documentation) with University Disability Support Services (UDSS) in 109 Knight Hall. See http://www.uwyo.edu/udss for more information.

Academic honesty
Please review university regulation 2-114 so that there is no misunderstanding about which activities are permissible and which activities are not permissible. Suspected academic dishonesty can be reported to the instructor, a department head, or a dean. A cornerstone of education is an environment of trust and integrity. Do not violate this cornerstone. Academic and legal troubles can result that you do not ever want to experience.
SARS-CoV-02 (aka COVID-19) policies
During this pandemic you must abide by all UW policies and public health rules put forward by the City of Laramie (or by Natrona County if at UW-Casper), the University of Wyoming, and the State of Wyoming to promote the health and well being of fellow students and your own personal self care. The current policy is provided for review at: https://www.uwyo.edu/alerts/campus-return/index.html.

As with other disruptive behaviors UW has the right to dismiss you from the classroom (Zoom and physical) and all class activities if you fail to abide by these policies. These behaviors will be referred to the Dean of Students Office using the UWYO Cares Reporting Form for Student Code of Conduct processes: see https://cm.maxient.com/reportingform.php?UnivofWyoming&layout_id=5.

HyFlex, Zoom, and WyoCourses expectations
As with all UW coursework, this course will be educational and useful to you. I will respond to questions, concerns, and feedback in a timely manner.

Your responsibilities:
- Give and receive feedback respectfully and constructively in all interactions. This includes in Zoom chats, on WyoCourses boards, and within physical classroom spaces.
- Actively engage in civil discourse in a respectful manner. Use professional language in all course related forums.
- Communicate professionally. Whenever you send class related email or messages, please include a clear, specific subject line and use the body of the email or message to explain the purpose for the email and any attached materials.
- Meet assignment deadlines. You are required to interact with course material on WyoCourses multiple times each week, including on weekends.
- Ask for help when you need it. For academic assistance for this course please contact me for available resources. For Dean of Students assistance please see: https://www.uwyo.edu/dos/student-resources/covid-19-student-resources.html.
- Please let me know if you notice another student who needs help in the anonymous WyoCares referral option https://www.uwyo.edu/dos/students-concern/index.html.

Information Technology (IT):
- If you have any IT related challenges, please contact the UWIT Service Center: https://uwyo.teamdynamix.com/TDClient/1940/Portal/Requests/ServiceDet?ID=8890

Classroom diversity statement
The University of Wyoming values an educational environment that is diverse, equitable, and inclusive. The diversity that students and faculty bring to class, including age, country of origin, culture, disability, economic class, ethnicity, gender identity, immigration status, linguistic, political affiliation, race, religion, sexual orientation, veteran status, worldview, and other social and cultural diversity is valued, respected, and considered a resource for learning. More information can be found at http://www.uwyo.edu/acadaffairs/resources/syllabus.html.

Duty to report statement
UW faculty are committed to supporting students and upholding the University’s non-discrimination policy. Under Title IX, discrimination based upon sex and gender is
prohibited. If you experience an incident of sex- or gender-based discrimination, we encourage you to report it. While you may talk to a faculty member, understand that as a “Responsible Employee” of the University, the faculty member MUST report information you share about the incident to the university’s Title IX Coordinator (you may choose whether you or anyone involved is identified by name). If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are people who can meet with you. Faculty can help direct you or you may find info about UW policy and resources at http://www.uwyo.edu/reportit. You do not have to go through the experience alone. Assistance and resources are available, and you are not required to make a formal complaint or participate in an investigation to access them.

Student Resources
Disability Support Services: udss@uwyo.edu, 1-307-766-3073, 128 Knight Hall, www.uwyo.edu/udss
Counseling Center: uccstaff@uwyo.edu, 1-307-766-2187, 766-8989 (After hours), 341 Knight Hall, www.uwyo.edu/ucc
Academic Affairs: 1-307-766-4286, 312 Old Main, www.uwyo.edu/acadaffairs
Dean of Students office: dos@uwyo.edu, 1-307-766-3296, 128 Knight Hall, www.uwyo.edu/dos
Emergency: 911
UW police department: uwpd@uwyo.edu, 1-307-766-5179, 1426 E Flint St, www.uwyo.edu/uwpd
Student code of conduct website: www.uwyo.edu/dos/conduct
SOAR, http://www.uwyo.edu/soar
White House Press Office: https://www.whitehouse.gov/briefings-statements/
OPEC: http://www.opec.org

EPIC
https://epicwyo.tuapath.com/milestones has some useful information and tools. The Explore set of hyperlinks are aimed at first year students.

STEP Tutor Center
http://www.uwyo.edu/onlinetutoring (home)
https://www.youtube.com/watch?v=jsmHW7e0omE (virtual tour)
The STEP Tutor Center is available to help you with a variety of courses. In this class, STEP can help with public speaking and paper writing. Students who seek academic help tend to receive 10-15% higher final grades in the classes than students who do not use these services. For best results, it is recommended students use this resource for 3+ hours over the course of the semester.

STEP plans to be open Sunday-Tuesday from 5-9 PM and is located in Coe Library. Sessions are by appointment only (no drop ins) and are 30 minutes in length. Online tutoring will be available on Wednesdays and Thursdays. Please visit the STEP Tutor Schedule for days and times through the web site http://www.uwyo.edu/step.
Check the web site for information on how to access their assistance during the pandemic.

Writing Center
http://www.uwyo.edu/writing-center/ (home)
An alternative to the STEP Center is the Writing Center. It is open Monday to Friday 9:00-7:00, Saturday 10:00-2:00, and Sunday 10:00-5:00. There are online and in person appointments available.
New Student Guidebook
http://www.uwyo.edu/learn/new-freshmen-student-guidebook/ has lots of useful information.

Class attendance, activity, and behavior
You are expected to attend all classes. If you are sick or have a family emergency/issue, please contact the instructor by email in advance as soon as possible. University regulation 6-713 determines acceptable excused absences. You are expected to contribute to the discussion in each and every class session. You should set telephone devices or applications to vibrate mode during class.

The reading assignment file will be posted on WyoCourses after the late turn in time with the second slide listing who did not turn in the assignment. The remainder of the slides will contain the contributing students’ discussion points. A key element of this class is the free thought exchange of the students in order to encourage learning and hearing different opinions about energy, the environment, and economics. Failure to contribute to the discussion compromises these ideals.

Coronavirus Pandemic Addendum to Attendance Policy:
During the fall of 2020 and for the duration of the coronavirus pandemic, the attendance policy applies as noted below:

- **Quarantine and Self Isolation:** Any student notified that they have tested positive for covid-19 or that they have been exposed to someone who has tested positive for covid-19 may need to isolate for up to two weeks at a time ([https://www.uwyo.edu/alerts/campus-return/index.html](https://www.uwyo.edu/alerts/campus-return/index.html)) Students will not be penalized for having to self-quarantine for exposure to an known positive. Students who test positive will be told to isolate and should continue to complete course work online for the duration of their isolation as they are able.

- **Illness:** Under no circumstances are students to attend in-person classes if they are experiencing any symptoms of covid-19. Illnesses are covered under the Authorized Absence program managed within the Dean of Students Office ([https://www.uwyo.edu/dos](https://www.uwyo.edu/dos))

*Note:* All campus community members are requested to use the COVID Pass as tool to track their personal health symptoms. If a student enters their daily temperature and symptoms and receives a *Fail*, they should notify their faculty that they will need to participate virtually for that day.

Grading:
FYS courses are graded on whole letter grades, i.e., no plus or minus. You must secure a grade of at least a C in order to receive credit for the FYS. All students will be graded separately on all individual assignments. All team members will be graded equally on all team assignments.

- **A – 90+%, B – 80+%, C – 70+%, and F otherwise.**

Do the 90%. Make my day and yours. I enjoy getting email from the UW administration stating that I grade too high when one of my classes receives all A’s.

Each of the following major items will contribute to your final grade:

- **Weekly journal for 12 weeks (12 points) [SLO 1-5]**
  - You will keep a journal on a computer (using a word processing program) consisting of your notes from the class sessions. These will be reviewed by the instructor on a
regular basis. Due to the quirks of how WyoCourse assignment submission works, you have to resubmit the entire set of entries each week, hence the need for a word processor.

- Submit a relevant set of questions and discussion points per topic for seminar discussion based on reading assignments. (32 points) [SLO 1-6, ACO 1-4]
- One off assignments
  - Vehicle survey (2 points) [SLO 1-6]
  - Gest visit to class by AirLoom, LLC (6 points) [SLO 1-6, ACO 1-4]
  - Plagiarism certification (4 points) [SLO 6]
  - Let There Be Light documentary (4 points) [SLO 1-6]
- Literacy Report (20* points) [SLO 1-6, ACO 1-4]
  - Possibly both in class and homework.
  - These assignments will support your abilities to do research and develop critical thinking skills.
- Team Project and Presentation (20* points) [SLO 1-6, ACO 1-4]
  - You will work in two person teams.
  - You will make recommendations on a topic of interest to the Wyoming energy sector that you have researched.
  - Your presentation will be in PowerPoint, Keynote, or Google Docs.
  - You should expect to work on the presentation during a few class sessions with the instructor offering advice to your team.

* Failure to complete all three parts of both the literacy report and group project will result in an immediate grade of F independent of all other grade requirements.

Withdrawal Policy

Please note that students may not withdraw from the First-Year Seminar (FYS) without approval from their instructor and academic advisor. This policy is not intended to cause undue difficulty for students. Rather, it is intended to emphasize the importance of the academic skills that students will develop in this course that will help to set you up for future success in your programs. If at any time you are concerned about your academic performance in this FYS please make an appointment to meet with me as soon as possible.

Course Schedule (subject to minor changes)

Week 1 (8/24) Online
  - Class introduction
  - Proper citing, quoting, and avoiding plagiarism
  - A vehicle energy discussion
    - One off 1 Vehicle mileage assignment due (8/26)

Week 2 (8/31) Online
  - AirLoom presentation (Robert Lumley and Mookwon Seo)
  - Wyoming’s energy strategy: Leading the Charge and follow on policies
    - Reading assignment 1 due (8/30): Leading the Charge
    - One off 2 Plagiarism assignment due (9/4)
    - Weekly journal week 1 entry due (9/5)
Week 3 (9/7)
Labor Day 9/7, no class
How the research process works
Energy resources
  Reading assignment 2 due (9/6): Energy Resources
  Weekly journal week 2 entry due (9/12)

Week 4 (9/14)
Global competition
Energy resources
  Reading assignment 3 due (9/13): Global Competitiveness
  Weekly journal week 3 entry due (9/17)

Week 5 (9/21)
Energy resources
Energy conversion
  Reading assignment 4 due (9/20): Energy Conversion
  Weekly journal week 4 entry due (9/24)

Week 6 (9/28)
Literacy paper discussion
Energy conversion
Fossil fuels
  STEP Tutor Center introduction
    Reading assignment 5 due (9/27): Fossil Fuels
    Weekly journal week 5 entry due (10/3)
    Literacy report, part 1 due (10/2)

Week 7 (10/5)
  STEP Tutor or Writing Center visit (recommended this week)
Fossil fuels
  Weekly journal week 6 entry due (10/10)

Week 8 (10/12)
  STEP Tutor Center or Writing visit (if not last week)
Renewable energy: solar, wind, water, geothermal, and bio
  Reading assignment 6 due (10/11): Renewable Energy I
  Literacy report, part 2 due (10/14)
  Weekly journal week 7 entry due (10/17)

Week 9 (10/19)
Renewable energy: solar, wind, water, geothermal, and bio
Discussion of Literacy Reports
  Team presentation formation and topics chosen (10/22)
    Reading assignment 7 due (10/18): Renewable Energy II
    Group Project, part 0 due (10/21)
    Literacy report, part 3 due (10/24)
    Weekly journal week 8 entry due (10/24)
    Group Project, part 1 due (10/24)
Week 10 (10/26)
  Economic issues
    Reading assignment 8 due (10/25): Economic Issues
    Weekly journal week 9 entry due (10/31)

Week 11 (11/2)
  Environmental issues
    Weekly journal week 10 entry due (11/8)
    Reading assignment 9 due (11/2): Environmental Issues

Week 12 (11/9)
  Team presentation discussions
  Nuclear energy issues
    Reading assignment 10 due (11/8): Nuclear Energy
    Group Project, part 2 due (11/10)
    Weekly journal week 11 entry due

Week 13 (11/16)
  Team presentations (11/17 and 11/19)

Week 14 (11/23) Online
  Nuclear energy issues
  Thanksgiving break (11/27-29)

Week 15 (11/30) Online
  Nuclear energy
    2017 documentary on nuclear fusion’s state of the art, “Let There Be Light”
    Weekly journal week 15 entry due (all entries due)

Finals week (12/7-11)
  No class
    Group Project, part 3 due (12/11)
## Assignment Summary

<table>
<thead>
<tr>
<th>Classification</th>
<th>Homework</th>
<th>Due</th>
<th>Points</th>
<th>Covers</th>
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<tbody>
<tr>
<td><strong>One Offs (16 points)</strong></td>
<td>OO1</td>
<td>8/26</td>
<td>2</td>
<td>Vehicle EPA mileage survey</td>
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<tr>
<td></td>
<td>OO2</td>
<td>9/1</td>
<td>6</td>
<td>AirLoom LLC visit</td>
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<td></td>
<td>OO3</td>
<td>9/4</td>
<td>4</td>
<td>Plagiarism certificate</td>
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<tr>
<td></td>
<td>OO4</td>
<td>12/1-3</td>
<td>4</td>
<td>Let There Be Light documentary</td>
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<tr>
<td><strong>Reading Assignments (32 points)</strong></td>
<td>RA1</td>
<td>8/30</td>
<td>3</td>
<td>Wyoming Energy, Environment, and Economics (Leading the Charge)</td>
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<tr>
<td></td>
<td>RA2</td>
<td>9/6</td>
<td>3</td>
<td>Energy Resources (chapter 2)</td>
</tr>
<tr>
<td></td>
<td>RA3</td>
<td>9/13</td>
<td>3</td>
<td>Global Competitiveness (chapter 5)</td>
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<td></td>
<td>RA4</td>
<td>9/20</td>
<td>3</td>
<td>Energy Conversion (chapter 3)</td>
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<td></td>
<td>RA5</td>
<td>9/27</td>
<td>3</td>
<td>Fossil Fuels (chapter 6)</td>
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<td>RA6</td>
<td>10/6</td>
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<td>Renewable Energy I (chapter 10)</td>
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<td>RA7</td>
<td>10/13</td>
<td>3</td>
<td>Renewable Energy II (chapter 11)</td>
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<tr>
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<td>RA8</td>
<td>10/25</td>
<td>3</td>
<td>Economic Issues (chapters 4 and 9)</td>
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<td>RA9</td>
<td>11/1</td>
<td>3</td>
<td>Environmental Issues (all over the textbook)</td>
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<td>RA10</td>
<td>11/8</td>
<td>5</td>
<td>Nuclear Energy (chapters 7-8, appendix C, pp. 371-383), and IEEE Spectrum article</td>
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<td><em><em>Literacy Report (20 points</em>)</em>*</td>
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<td>Title and abstract</td>
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<td>LR2</td>
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<td>LR3</td>
<td>10/24</td>
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<td>Final report</td>
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<td><em><em>Group Project (20 points</em>)</em>*</td>
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<td>Sales pitch</td>
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<td>10</td>
<td>Final presentation</td>
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<td>JR7</td>
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<td>JR12</td>
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<td>Journal report for weeks 1–15</td>
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* Failure to complete all three parts of both the literacy report and group project will result in an immediate grade of F independent of all other grade requirements.