Syllabus - ESP 275

-
- **Course information**
- *Syllabus revised 01/09/2014*
-
- Fall 2014 August 31 to Dec 14 Online
-
- Daniel M. Martinez, Ph.D.
- daniel.m.martinez@maine.edu
- 105 Bailey Hall, USM, Gorham ME
- Phone: 207-780-5444 Skype: daniel.m.martinez1
- I am available via e-mail Monday through Friday from 9:00a.m. - 5:00p.m and through Skype (web phone) by appointment (including evenings if necessary).
- ---
- Course description
- This course will equip students with knowledge of energy use from a global systems perspective. Lectures will focus on topics ranging from basic energetics to forecasted energy use patterns. The course will use textbook reading to achieve basic understanding. Class time will be used to present summary learning modules to support textbook subjects, while spending more time on implementation, social, and environmental issues. Students will be expected to complete problem-based homework in Blackboard, as well as complete annotations of primary source material. This course relies heavily on video media and will require critical evaluation of the video content.
-
- **Learning goals and objectives**
- Goals/outcomes
-
- At the conclusion of this course, you will have a general understanding of energy, its utility, its use, and its impact on society and the environment. In particular you will achieve:
    - an understanding of traditional, modern, and future energy sources
    - an understanding of energy consumption sectors in modern economies
    - an understanding of energy technologies and environmental and social development impacts
    - an acquired knowledge of functional and useful skills necessary for processing energy statistics and reports
-
- Learning objectives
-
- During this course you will...
    - **read** from the textbooks and other media to complete Blackboard Assignments for mastery learning
    - **view** films and other video media and **read** articles from popular and peer reviewed journals

- **submit** electronic documents on your critical appraisal of videos and articles using an annotated bibliography format
- **review** multimedia sites that contain statistical data on energy use in different geographic regions and process that information graphically in spreadsheet software (such as gnumeric or excel)
- **complete** multiple format quizzes
- OPTIONAL: **compose** a 5-7 page annotated evaluation on energy futures in Maine

Textbook, readings, multimedia

We will be using the following in this class:

The Path to More Sustainable Energy Systems: How do we get there from here? (Ebenhack and Martinez)

Thinking in Systems (Donella Meadows)

Videos and articles to be assigned as necessary

Technology requirements

You will need:

1. a relatively new computer with a Web browser (The latest Firefox, Internet Explorer, or Chrome - Firefox is used in the design of all content in this class)
2. high-speed internet in order to access many of the larger file formats that are prevalent in today's online education community
3. ***Microsoft Office Suite*** (Windows and Mac) or the free downloads, ***Libre Office*** (Windows and Mac), or ***Kingsoft Office*** (Windows) for the software applications we will be using in the course.
4. a memory stick or Dropbox for back-up

Other software requirements:

1. **Adobe Flash Player** for educational software web sites (free download)
2. **Adobe Shockwave Player** for interactive web sites (free download)
3. **Adobe Acrobat Reader** for reading pdf files (free download)
5. **Skype** for one-on-one sessions (free download)
6. **Quicktime** or **VLC Media Player** (free downloads)

How this course will work

Each week, beginning August 31 and ending Dec 14, we will explore different topics associated with how energy is used, how it has evolved over time, and how it may be shaped going forward. The week is defined as Sunday 5 pm through the following Sunday at 11:59 pm, at which times the weekly assignments will be due.

- As this course covers a lot of material, I suggest that you allow at least 5 - 6 hours per week on the weekly content; some may take less, others may take more. Sample assignments are: text book reading, film reviews, online articles and discussion questions on the discussion board, on-line quizzes. There is a an optional final paper if you choose to boost your final grade. Word of advice: do not wait until the end of the week to complete units.
-
- Each class session will be introduced in the Announcement section of Blackboard. I will also be posting other pertinent information here. When you first log on to Blackboard, the Announcement page appears. You will not miss a thing! Explanations and the appropriate resources will be found for each session under Weekly Units.
-
- Everything associated with the course will be posted in Blackboard. In addition to using the discussion board and e-mail, we will be using the quiz component, the grade book and other attributes of Blackboard - all of which will be explained as we progress through the course.
-
- Finally, I make it a requirement that we touch base one-on-one using a video skype call or an in-office visit at the midway point. I do this for quality control purposes to make sure we are on the same page and so that we may put a proverbial face to a name. I find that it has been extremely helpful to do this, thus the requirement. ***Failure to meet this requirement will result in a forfeiting of the Participation portion of the grade.***
-
- **Assessments and grading policy**
- You will be assessed on the following:
- You will be assessed on the following:

1. Blackboard Assignments and Annotations	40 pts
2. Quizzes	45 pts
3. Discussion Board Participation and Midterm Meeting	15 pts
4. TOTAL	100 pts
5. Optional Position Paper	up to 10 pts

-
-

A to A- Range: 100 - 90 (95-100 = A; 90-95 = A-)
B+ to B- Range: 89.9999 - 80 (89.9999-87 = B+; 83-87 = B; 80-83 = B-)
C+ to C- Range: 79.9999 - 70 (79.9999-77 = C+; 73-77 = C; 70-73 = C-)
D+ to D- Range: 69.9999 - 60 ((69.9999-67 = D+; 63-67 = D; 60-63 = D-)

-

- **Assignments**
- All assignments are due one week after they are assigned unless noted otherwise. The due time is the following Sunday at 11:59 pm. An abundance of late submissions over the years has caused me to make this deadline hard. Also note: copyright laws prohibit me from leaving the feature film content available for more than two weeks anyway. The Blackboard assignment will not be re-opened, unless there is an extreme and verifiable circumstance that prevented you from completing it in one week. I feel strongly about the Blackboard part because falling behind on that will become exceedingly onerous.
-
- **PDF and email requirement**
-
- All annotation assignments must be sent to me in .pdf format. I will not accept any other format. Most modern word processes have "save as pdf" features. You may also install PDF Creator, which allows you to print to a pdf printer on your computer. Submit assignments via Blackboard. No email submissions will be accepted.
-
-
- **Interaction on discussion board**
-
- My role, as the instructor, in the discussion board is one of a facilitator. I won't necessarily be responding to your individual posts but I will read each one. At the end of the week, I may summarize what has been discussed, add comments at that time and (I hope) post grades.
-
- Your role, as the student, in the discussion board is to post, answer questions, and to react to each other. I expect first postings to happen by Wednesday, so that there is time to respond. If I find people posting for the first time on Sunday, I will begin mandating early postings for full credit with a sliding scale for those that wait until the last minute.
-
-
- **Using the gradebook feature**
-
- This is a feature that you will want to use to keep track of your assessment scores that you receive in this course. By clicking on Tools and then My Grades, you will see all of your scores plus comments that I might add with each score.
-
- I like this feature a lot because I, as the instructor, don't have to continuously remind any of you that something has not been completed, etc.
-
- Remember: only you (and I) can see your grades!!!!
-
- **Adaptations and accommodations**
- Students who require adaptations of accommodations because of a disability are asked to contact me as soon as possible. For information, you may also contact the Office of Academic Support for Students with Disabilities, Luther Bonney, 2nd floor, (780-4706.) Students who encounter difficulty with the course for any reason are encouraged to communicate directly with the instructor. For assistance with writing or study skills, you are encouraged to contact the University Learning

Center at the Portland Campus (780-4228). Help is also available through the Counseling Center, 106 Payson Smith (780-4050) and the Office of Academic Support for Student with Disabilities, Luther Bonney, 2nd Floor (780-4706).

- **Schedule for Fall 2014**
- **Schedule (subject to changes) -- ALL ASSIGNMENTS DUE BY 11:59 PM**

Topic	Video/Reading	Q	Assignment
	Sunday Aug 31		
Unit 1: Concepts	**Reading:** "The Path Chapter 1	No	Bb 1 / Optional Annotation; Du Sep 7
	Sunday Sep 7		
Unit 2: Traditional versu Modern Energy	**Video**: Energy Crossroads **Reading**: "The Path Chapter 4	No	Bb 2 / Annotation; Due Sep 14
	Sunday Sep 14		
Unit 3: Fossil Energy	**Video**: Black Gold **Reading**: "The Path Chapter 2	No	Bb 3 / Annotation; Due Sep 21
	Sunday Sep 21		
Unit 4: Renewable Ene	**Video**: A Crude Awakening **Reading:** "The Path Chapter 3	No	Bb 4 / Annotation; Due Sep 28
	Sunday Sep 28		
Quiz 1: Units 1-4	Quiz 1: Units 1-		Quiz 1: Units 1-4 (72 hour win for Questions, 5 day window f Annotation)
	END PART I		
	Sunday Oct 5		
Unit 5: Systems Thinkin	**Video**: Allenby Lect **Reading:** Meadows 2	No	Bb5/Annotation; Due Oct 12
	Sunday Oct 12		

Unit 6: Oil Limits	**Video**: A Crude Awakening **Reading**: "The Path Chapter 5	No	Bb6/Annotation; Due Oct 19
•	• **Sunday Oct 19**	•	•
Unit 7: Problems w/ Renewable Energy	**Reading**: Smil OEC Observer; Kammen Scientific American	No	Bb7/Annotation; Due Oct 26
	• **Sunday Oct 26**		
Unit 8: Pollution & Clim Change	**Video:** TBD **Reading**: The Path Chapter 6	No	Bb8/Annotation; Due Nov 2
	• **Sunday Nov 2**		
Quiz 2: Units 4-8	• Quiz 2: Units 4-	Ye	Quiz 2: Units 4-8 (72 hour win
	• **END PART II**		
	• **Sunday Nov 9**		
Unit 9: Transportation a Fuels	**Video**: Who Killed t Electric Car? **Reading**: Crunching Numbers	No	Video Annotation, Assignment Due Nov 16
	• **Sunday Nov 16**		
Unit 10: The Energy La	**Video**: China Revs **Reading**: Househol Energy Use	No	Annotation, Assignment; Due 23
	• **Sunday Nov 23**		
Unit 11: Energy Securit	Reading: Niger Delt	No	Double Points Bonus Annotati Due Nov 30
	• **Sunday Nov 30**		
Unit 12: Resource Agrarianism	**Video**: The End of Suburbia	No	Video Post; Due Dec 7
	• **Sunday Dec 7**		
Quiz 3: Units 9 - 12	Quiz 3: Units 9 - 12	Ye	Quiz 3: Units 9 - 12 (72 hour window)
	• **Wednesday Nov**		
Bonus Credit Paper Du	Bonus Credit Paper Due	No	Bonus Credit Paper Due