

ME/GEOG 217: Energy, Environment and Society

Spring 2021 3 Cr. Hrs.

Remote Arranged – Synchronous Online T/TH 9:00-10:15

Zoom id: https://unm.zoom.us/j/94715737626

Passcode: 215025

Instructor: Nancy Engler Instructor Email: englern@unm.edu

Instructor Led Study Sessions: Zoom T/Th at 10:15-12:15, 2:15-3 and by appointment. Zoom id: https://unm.zoom.us/my/profengler

MECS Division Chair: Elaine W. Clark ewclark@unm.edu

TABLE OF CONTENTS

Course Description	2
Course Goals:	2
Student Learning Outcomes/Course Objectives: Error! Bookmark	not defined
Prerequisites	2
Technical Requirements	3
Computer	3
Web Conferencing	3
Technical Support	4
Textbook and Supplemental Materials	4
Required Textbook:	4
Coursework, schedule, and Participation	4
Instructor Response Time	4
Procedures for Completing Coursework	4
Estimated Course Schedule	5
Expectations for Participation	5
Netiquette	ε
Notes to Students about participation in a course using UNM Learn:	ε
Tracking Course Activity	ε
Submitting Assignments	7
Grading Procedures	-

Grading Scale	/
UNM Policies	
Equal Opportunity and Non-Discrimination	
Copyright Issues	
Accessibility and Accommodations	8
Accessibility Statements	8
Academic Integrity	8
Drop Policy:	8
UNM Resources	g
FOR MILITARY-CONNECTED STUDENTS	9
Semester Deadlines	9

COURSE DESCRIPTION

A look at the social, ethical, and environmental impacts of energy use both now and through history. A survey of renewable energy and conservation and their impact on environmental and social systems.

Course Goals:

To learn about the various ancient and modern energy sources and generation, as well as their impact on the environment and society. We will include discussion of any ethical issues that production and utilization of energy may cause.

Prerequisites/Corequisites: None

NOTE: if the embedded hyperlinks provided below will not open, go to the indicated footnote for the full URL link to open

In order to participate and succeed in this class, you will need to be able to perform the following basic technical tasks:

- Use UNM Learn (help documentation located in "How to Use Learn" link on left course menu, and also at Online Student Documentation1). Also, UNM-Valencia provides a Blackboard Learn Jumpstart self-learning module to give you practice with the most commonly used tools in UNM Learn. Ask Prof. Engler if you do not see the UNM-Valencia Blackboard Learn Jumpstart in your list of classes in UNM Learn.
- Use email including attaching files, opening files, downloading attachments
- Copy and paste within applications including Microsoft Office
- Open a hyperlink (click on a hyperlink to access a website or online resource)

¹ http://online.unm.edu/help/learn/students/

- Use Microsoft Office applications (see below about the free MS Office Suite available to UNM students)
 - o Create, download, update, save and upload MS Word documents
 - o Create, download, update, save and upload MS PowerPoint presentations
 - o Create, download, update, save and upload MS Excel spreadsheets
 - o Download, annotate, save, and upload PDF files
 - Access MS Teams
- Use Zoom web conferencing tool (see below)
- Download and install an application or plug in

TECHNICAL REQUIREMENTS

Computer

- A high-speed Internet connection is highly recommended.
- Supported browsers include: <u>Detailed Supported Browsers and Operating</u> Systems²
- Any computer capable of running a recently updated web browser should be sufficient to access your online course. However, bear in mind that processor speed, amount of RAM and Internet connection speed can *greatly* affect performance. Be aware, some programs that use mathematics will not work well on mobile devices such as smart phones or tablets.
- For the best experience when using the Kaltura Media Tools inside UNM Learn, be sure to use a <u>supported browser</u>³ on a desktop.
- Microsoft Office products are available free for all UNM students (more information on the UNM IT Software Distribution and Downloads page⁴)
- Please update your contact information in Loboweb: <u>MyUNM Login</u>⁵. When you log into MyUNM, Enter LoboWeb. Click on the Personal Information link to make sure your contact information is up to date.
- Laptops may be available for checkout for the Fall semester from the <u>UNM-Valencia Library</u>⁶. Contact <u>UNM-Valencia Student Services</u>⁷ for more information.

Web Conferencing

Web conferencing will be used in this course for all class meetings or help sessions with the instructor. For these online sessions, you will need:

• A headset with microphone. (Recommended, not required) Headsets are widely available at stores that sell electronics, at the UNM Bookstore, or online.

² https://help.blackboard.com/Learn/Student/Getting Started/Browser Support

³ https://help.blackboard.com/Learn/Student/Getting Started/Browser Support

⁴ http://it.unm.edu/software/index.html

⁵ http://my.unm.edu/home

⁶ http://valencia.unm.edu/library/index.html

⁷ http://valencia.unm.edu/students/student-services.html

- A high-speed internet connection is highly recommended for these sessions. A
 wireless Internet connection may be used if successfully tested for audio quality
 prior to web conferencing.
- You should also dress as you would when attending an in-person class, even if you do not turn on your video camera.
- To create a UNM supported Zoom account, visit the UNM Zoom⁸ log in page.

Technical Support

- For UNM Learn Technical Support: (505) 277-0857 (24/7) or use the "Create a Tech Support Ticket" link in your course.
- For UNM-Valencia IT Support: (505)925-8911
- For UNM Web Conference Technical Help: (505) 277-0857

TEXTBOOK AND SUPPLEMENTAL MATERIALS

Required Textbook:

Textbook: Sustainable Energy

By Richard A. Dunlap

Second Edition

Cengage

Recommended and/or Optional Textbooks, Journals and Articles: Any additional readings for this class will be provided via links in UNM Learn.

COURSEWORK, SCHEDULE, AND PARTICIPATION

Instructor Response Time

E-mail sent to me must include your course and section, full name, and the problem number of your question as listed on the assignment.

Exam grading inquiries must be submitted within one week of the return of the exam for consideration. These questions must include a photo, screen shot, or scan of the entire problem in question.

I will be checking email and UNM Learn regularly. You may expect a response within 24-48 hours from your email. If you have not heard from me by then, please contact me again. Massive numbers of emails received means yours may slip past me.

Procedures for Completing Coursework

 Each student is allowed one (1) unexcused late or resubmitted assignment each semester. Excused extensions will be granted for university or medical excused absences if you contact me at least 24 hours before the due date.

-

⁸ https://unm.zoom.us/

- Any other late work will be penalized by deducting 10% of the available points for each day it is late to a maximum of 50% unless arrangements are made in advance.
- No assignments will be accepted after the Final Exam.

Quizzes will be administered through UNM Learn. Exams will require you to be online at the pre-arranged class time where I will proctor the exam via Zoom.

If you anticipate difficulty meeting a deadline, I expect to be notified as far in advance. If possible. That notification should be sent to me via email at englern@unm.edu.

All written work needs to be submitted online. If you have a difficulty using a tool to complete work, use the "Create a Tech Support Ticket" link in the Course Menu immediately and notify your instructor as well.

Estimated Course Schedule by Week (Subject to Change)

- 1. Introduction and motivation. Science of electrical generation & regional variation.
- 2. Focus on Coal, Fossil fuels, environmental consequences of fossil fuels,
- 3. First debate: pros and cons of coal. Quiz on coal and electrical generation.
- 4. Nuclear energy and wind energy
- 5. Debate 2: nuclear vs. wind energies, and Quiz 2 on nuclear and wind energies.
- 6. Biofuels, oil, and natural gas. Debate 3: biofuels vs. Oil and natural gas.
- 7. Geothermal power.
- 8. 5 minute presentations on geothermal power in various countries and states. Initial proposal for project report. Quiz 3: Biofuels, O&G and Geothermal power.
- 9. Solar energy systems.
- 10. Debate 4: Pros and Cons of Solar Power for electrical generation.

 And Quiz 4: Solar power.
- 11. Hydropower
- 12. Energy economics, Quiz 5
- 13. Energy efficiency and distribution
- 14. Energy storage, carbon sequestration Quiz 6
- 15. Options for the future, review, Project Report due.
- 16. Final Exam May 13, 9:00-11 a.m.

Expectations for Participation:

- time required (9-12 hrs per week)
- students are expected to learn how to navigate in Learn
- students are expected to keep abreast of course announcements
- students are expected to use the Learn course email as opposed to a personal email address
- students are expected to keep instructor informed of class related problems, or problems that may prevent the student from full participation
- students are expected to address technical problems immediately

students are expected to observe course netiquette at all times.

Netiquette

NOTE: For links to online PDF formatted documents, you may need to give permission for the document to open. Look for a pop-up window asking for your permission

One of the overriding principles in online conversations is to "craft your responses effectively." It is sometimes difficult to remember that there are real people reading posted messages. This is especially true of online communication where others do not have the opportunity to see body language or hear tone of voice; therefore, misunderstandings are more likely.

Please, follow these guidelines in all of your online responses and discussion postings.

- Honor everyone's right to an opinion.
- Respect the right of each person to disagree with others.
- Respond honestly but thoughtfully and respectfully; use language which others will not consider foul or abusive. You may also use emoticons to convey a lighter tone.
- Respect your own privacy and the privacy of others by not revealing information which you deem private and which you feel might embarrass you or others
- Be prepared to clarify statements which might be misunderstood or misinterpreted by others.

A Special Note about Anger

- Do not send messages that you have written when you are angry, even anonymous ones. In the online world, angry messages are known as "flaming" and are considered bad behavior. Venting and flaming are two different things. It is possible to vent without becoming "ugly." Stick to the facts of what is causing you frustration.
- Do not send messages that are written all in upper case; this is the visual equivalent of SHOUTING. It is considered aggressive and is considered bad behavior. If you ever feel like shouting a message, take a deep breath and wait until you have calmed down before responding. Then, respond in a calm and factual manner.

UNM Netiquette document⁹

NOTES TO STUDENTS ABOUT PARTICIPATION IN A COURSE USING UNM LEARN:

Tracking Course Activity

UNM Learn automatically records all students' activities including: your first and last access to the course, the pages you have accessed, the number of discussion messages you have read and sent, web conferencing, discussion text, and posted discussion topics.

⁹ http://online.unm.edu/help/learn/students/pdf/discussion-netiquette.pdf

This data can be accessed by the instructor to evaluate class participation and to identify students having difficulty

Submitting Assignments

When you submit an assignment via UNM Learn, you will receive an email receipt of your submission from *do-not-reply@learn.unm.edu*. Save this email as confirmation of your submission.

GRADING PROCEDURES

Grade Weighting:
Attendance/Participation = 20%
Quizzes = 20%
Debates = 20%
Project Report = 20%
Final exam = 20%

Grading Scale

Final grades will be based on the weighted average of the categories as described above. Percentage earned:

Grade	
90 -100	Α
80 -89	В
70 -79	С
60 -69	D
< 60	F

I will award grades with (+) as appropriate. I will not award grades with (-) as I consider them to be punitive.

UNM POLICIES

Equal Opportunity and Non-Discrimination

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the <u>Department of Education ¹⁰</u> (see pg. 15). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the <u>Office of Equal Opportunity¹¹.</u>

-

¹⁰ https://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf

¹¹ http://oeo.unm.edu/

Read more about UNM policy regarding sexual misconduct¹².

Copyright Issues

All materials in this course fall under copyright laws and should not be downloaded, distributed, or used by students for any purpose outside this course.

The UNM Copyright Guide¹³ has additional helpful information on this topic.

Accessibility and Accommodations

The American with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodations of their disabilities. If you have a disability requiring accommodation, please contact:

- <u>UNM-Valencia Student Services¹⁴</u> if you are a Valencia campus student. The phone number is 505-925-8560
- <u>UNM Accessibility Resource Center¹⁵</u> in 2021 Mesa Vista Hall *if you are a main campus student*. The phone number is 505-277-3506.

Information about your disability is confidential and your instructor cannot refer you for accommodations. Be aware that you will need to provide documentation. If you need assistance in obtaining documentation, the offices above can assist you.

Accessibility Statements

<u>Blackboard's Accessibility statement¹⁶</u> Microsoft's Accessibility statement¹⁷

Include links to accessibility statements for all other technologies included in the course.

Academic Integrity

You should be familiar with UNM's Policy on Academic Dishonesty¹⁸ and the Student Code of Conduct¹⁹ which outline academic misconduct defined as plagiarism, cheating, fabrication, or facilitating any such act.

Drop Policy:

Last update: 07/13/20

_

¹² https://policy.unm.edu/university-policies/2000/2740.html

¹³ https://copyright.unm.edu/

¹⁴ http://valencia.unm.edu/students/student-services.html

¹⁵ https://arc.unm.edu/

¹⁶ https://www.blackboard.com/blackboard-accessibility-commitment

¹⁷ https://www.microsoft.com/en-us/accessibility/

¹⁸ https://pathfinder.unm.edu/campus-policies/academic-dishonesty.html

¹⁹ https://pathfinder.unm.edu/code-of-conduct.html

UNM Policies: This course falls under all UNM policies for last day to drop courses, etc. Please see or the UNM Course Catalog for information on UNM services and policies. Please see the UNM academic calendar for course dates, the last day to drop courses without penalty, and for financial disenrollment dates.

UNM RESOURCES

- UNM Valencia Campus Tutoring Services²⁰
- UNM Main Campus CAPS Tutoring Services²¹
- UNM-Valencia Library²²
- UNM Libraries²³
- "Life" Resources available to UNM-Valencia Students²⁴
- Student Health & Counseling (SHAC) Online Services²⁵

FOR MILITARY-CONNECTED STUDENTS

There are resources on campus designed to help you succeed. You can approach any faculty or staff for help with any issues you may encounter. Many faculty and staff have completed the GREEN ZONE training to learn about the unique challenges facing military-connected students. If you feel that you need help beyond what faculty and/or staff can give you, please reach out to the Veterans Resource Center on main campus at 505-277-3181, or by email at vrc@unm.edu. The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

SEMESTER DEADLINES

Spring 2021 – 16-week classes

- Tuesday, January 19: First day of class, classes available in Blackboard Learn
- Friday, January 29, by 5:00 PM: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- Friday, February 5: Last day to drop without "W" grade and with 100% refund on LoboWEB
- Friday, February 12: Last day to change grade mode

Last update: 07/13/20

.

²⁰ http://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html

http://caps.unm.edu/services/online-tutoring/olc.php

²² http://valencia.unm.edu/library/index.html

²³ https://library.unm.edu/

http://valencia.unm.edu/students/student-resources.html

²⁵ https://shac.unm.edu/

- Wednesday, March 15-19: SPRING BREAK
- Friday, April 16: Last day to drop *without* Dean's permission on LoboWEB. Will receive "W" grade and will be responsible for tuition for the course.
- Friday, May 5: Last day to add sections and/or change credit hours with form, last day to drop *with* Dean's permission. Will receive "W" grade and will be responsible for tuition for the course.
- May 10-14: Finals week. All final exams given remotely. May 13, 9:00-11:00 a.m.