****

# I. Course and Instructor

Format: This course is offered in the “flex” format. For most class sessions, we will meet synchronously via the Zoom online meeting software. Links for class Zoom sessions will be made available via the Canvas course landing page and the weekly course modules. The class will not meet face to face during the term.

Each Canvas course module states whether or not there will be a live Zoom meeting that week, so looking through the modules will allow you to see exactly which weeks you will be expected to be present via Zoom.

In place of one weekly meeting, you will also be expected to attend the CMC virtual sustainability conference. Details will be provided in class.

When attending class via Zoom, **students are expected to keep their cameras on**. You may choose to use a Zoom background image if you prefer not to show your live surroundings during class. If you have bandwidth or other reasons that you prefer to keep your camera off, please talk with me to let me know. Do understand that using your camera provides you the best opportunity to be truly “present” in the class and to work directly with your professor and classmates. Since this class includes a great deal of discussion and group work/assignments during class time, having your camera on will help you to get the most out of these sessions.

Course Title: Energy Systems and Sustainability

Course Code: 21/SP: SUS 325-SB01: 29689

Semester: Spring 2021

Meeting Days & Times: Thursdays, 8:30-11:20 AM

Class Location: virtual/Zoom

Syn. Number: 29689

Credits: 3

Prerequisites: SUS-300 or SUS-301 must be taken concurrently if not previously completed with a grade of C- or higher.

Start Date: January 21, 2021
End Date: May 7, 2021
Refund Date: February 5, 2021
Withdraw Date: April 10, 2021

No-show Reporting Date: No-show reporting is determined based on your attendance and engagement. You will be reported as a no-show for this course if you do not attend the first class AND you have not viewed the Canvas course materials before the second class. If you are dropped for non-attendance, a refund is not automatic nor guaranteed. For additional explanation of no-show attendance reporting, including details related to potential loss of financial aid, go to <https://catalog.coloradomtn.edu/content.php?catoid=14&navoid=1623#noshow>.

**Instructor Information**

Tina Lynn Evans, Ph.D.

Phone: 970-870-4517

E-mail: tevans@coloradomtn.edu

Office Number: Bristol Hall 109 (enter through room 111).

Office Hours: Mondays 12:00-2:00pm, Tuesdays 12:00-2:00pm, Thursdays 12:00-1:00pm, and by appointment. I will not be holding in-person office hours in my campus office. Please seek me out online by e-mailing me during my office hours. Once I know you would like to meet, we can connect via phone or Zoom. You can also reach out to me any time via Canvas e-mail or via my regular e-mail address listed above.

**Required Course Materials**

The following texts are required for this course:

Heinberg, R., & Fridley, D. (2016). *Our renewable future: Laying the path for one hundred percent clean energy*. Island Press.

Pahl, G. (2012). *Power from the people: How to organize, finance, and launch local energy projects*. Chelsea Green Publishing.

Rifkin, J. (2019). *The Green New Deal: Why the fossil fuel civilization will collapse by 2028, and the bold economic plan to save life on earth*. St. Martin’s Press. ISBN: 9781250253200.

Additional course materials will be made available via Canvas. This material will be listed in the weekly modules within Canvas. As the course progresses, I may alter the readings to better address/explore a topic/area of interest/concern. Any such changes will be reflected in Canvas, and students will be notified during class.

CMC Learning Materials Program

Credit-based students participate in CMC’s Learning Materials Program (LMP). It is through this program that all physical or digital textbooks, digital required course materials, and relevant custom materials are provided to students an all-inclusive, flat, per-credit fee. (There are a few exceptions to included materials such as lab kits and a selected number of excluded courses.) Detailed information about the Learning Materials Program, including how to ensure you receive your textbooks and how to return texts at the end of a course, can be found at: <https://coloradomtn.edu/classes/textbooks/>

# II. Course Description

Examines depletion of fossil fuels in the context of the global growth economy. Also examines social and ecological effects of fossil fuel extraction and use and the geopolitical context of energy resource competition. Focuses heavily on economic, technological, social, political, and cultural avenues for innovation and change aimed at mitigating the problems fossil fuel use and depletion pose for individuals, groups, nations, and ecological systems.

# III. Student Learning Outcomes, Competencies, and Skills

Upon completion of this course, you should be able to:

1. Understand energy as a property (the ability to do work) and energy conversion in terms of the first two laws of thermodynamics (the conservation law and the law of entropy).
2. Understand the concept of energy return on energy invested (net energy) as a crucial consideration in energy planning and policy.
3. Understand significant ecological, technical, economic, and political possibilities and challenges relevant to transitioning global energy systems away from fossil fuels.
4. Understand social and ecological justice implications of energy choices.
5. Understand a variety of geopolitical tensions that exist worldwide with regard to energy resources and energy consumption.
6. Understand the central issues and points articulated by the Intergovernmental Panel on Climate Change with regard to the socio-ecological implications of climate change.
7. Articulate a rationale and strategies for transitioning away from the fossil-fuel-based energy system.

# IV. Student Feedback to Instructor

Near the end of the semester, you will be asked to complete a survey about your experiences in this course. The survey will be available through Canvas. Individual instructors may solicit additional feedback beyond this survey.

# V. Evaluation Methods

**Overview of Required Coursework**

**General Class participation: 10% of final grade or 100 points:** The success of this course—for you and for your classmates—depends largely on your commitment to attending, preparing for, and participating in class. Readings will be assigned for each class—do them! If you don't, you'll be lost in class, and class discussions will suffer markedly, impacting the learning of others as well. Also, since class participation makes up an important percentage of your final grade, your grade will suffer if you continually lag behind in or don't complete readings, if you skip classes, or if you neglect to participate. That said, you will not necessarily be graded on the *quantity* of your participation. Having a great amount of poor quality, uninformed participation is not beneficial to you or to the class and will not result in a high grade for participation. Readings assigned for a particular class are to be completed *prior* to that class. As one gauge of your class participation, I will take attendance regularly. Class participation grades will be calculated at the end of the term and posted in Canvas. If you have questions about your participation grade, please consult with me.

* *Addresses learning outcomes 1-7.*

**In-class Presentation Development and Sharing: 25% of final grade or 250 points:** Near the end of the term, you will participate in two in-class activities and presentations that require you to analyze, evaluate, and apply ideas drawn from course readings. This work, other than the reading, will take place entirely within the class time. Therefore, you will need to be present to complete these collaborative assignments. Specific instructions on this work will be provided within the Canvas course modules.

* *Addresses learning outcomes 1-7.*

**CMC Virtual Sustainability Conference Participation: 5% of final grade or 50 points:** You will be required to attend the CMC Virtual Sustainability Conference to be held on April 23. A written reflection on what you learn at the conference is also required. Details on the amount of required participation and on the written work you will submit will be provided in class.

**Individual Journaling, 20% of final grade or 200 points:** You complete a set of five journal entries relevant to course readings, assignments, and in-class discussions. The prompt(s) for each entry will be shared via Canvas, and you will submit your work via Canvas as well. Although these assignments are somewhat informal in nature, please communicate clearly and thoughtfully using standard English grammar and sentence structure. Texting lingo, for example, is not acceptable for these writing assignments.

* *Addresses learning outcomes 1-7.*

**Online Discussion Questions, 20% of final grade or 200 points:** You will be required to participate in five online discussions based on course readings, assignments, and in-class discussions. You will use the Canvas courseware platform to engage in these discussions, and specific instructions on how to do so will be provided via Canvas and in class. You are encouraged, not only to post your own individual responses to the question(s) posed, but also to respond thoughtfully to your classmates’ and your professor’s posts and/or to ask questions relevant to the discussion. Although these discussions are somewhat informal in nature, please communicate clearly and thoughtfully using standard English grammar and sentence structure. Texting lingo, for example, is not acceptable for these writing assignments.

* *Addresses learning outcomes 1-7.*

**Closing Analytical and Reflective Essay: 20% of final grade or 200 points:** Near the end of the term, you will write an in-depth analytical and reflective essay that will call upon you to synthesize course content, develop and support your own arguments about the current and future state of energy systems, and relate the content of the course to the context of your own learning and life. Instructions for this essay will be provided in class and via Canvas.

* *Addresses learning outcomes 3, 5, and 7.*

**Extra Credit:** I may identify in class and/or via Canvas additional opportunities to earn extra credit. All such opportunities will be open to all students.

**Grading Scale**

A 93.5%-100% 935-1000 points

A- 89.5%-93.4% 895-934 points

B+ 86.5%-89.4% 865-894 points

B 82.5%-86.4% 825-894 points

B- 79.5%-82.4% 795-824 points

C+ 76.5%-79.4% 765-794 points

C 72.5%-76.4% 725-764 points

C- 69.5%-72.4% 695-724 points

D+ 66.5%-69.4% 665-694 points

D 62.5%-66.4% 625-664 points

D- 59.5%-62.4% 595-624 points

F below 59.5% below 595 points

# VI. Class Management

You are required to read assigned readings **prior** to each class session and be prepared to discuss relevant ideas and concepts in class. Please avoid entering class late or leaving early because doing so disrupts the class. Here are some general guidelines to help you understand the structure of this course, the expectations I have of you, and what you can expect from me.

1. You create your path in this life, and building a meaningful and satisfying path takes effort. Information means nothing unless you take it in, consider it within the framework of what you already know, reflect upon it, and create your own interpretation and meaning from this process. This course is designed to help you learn vital information about energy issues, challenges, and possibilities relevant to sustainability, but it is your own efforts in this process that matter the most.
2. We will use the following online tool as primary means of communication: Canvas: CMC’s chosen e-learning tool will provide an online site for our course. This is where you will find course announcements, assignments, class session outlines, and more. I will provide an overview of Canvas during the first week of class.
3. Written work assigned must be turned in via Canvas. Unless otherwise stated, all writing assignments must be word-processed.
4. Your Canvas e-mail address is considered an official means of contacting you about this course. Therefore, you are expected to check your Canvas e-mail regularly.
5. I may choose to alter the course material and assignments as the semester progresses. These changes will be conveyed to you in class and reflected in Canvas.
6. I will accept late assignments for one week following the original due date. All late assignments will be docked one full grade (10%). No assignments will be accepted following the end of the term on May 7, 2021.
7. If you need to miss a class in order to participate in a CMC-sanctioned activity, due to health reasons, or due to an emergency situation, please notify me as soon as you are aware of this to make arrangements to make up any missed activities. Course attendance is part of your class participation grade.
8. Please do not expect me to make course accommodations for you so that you may engage in personal travel (vacations, travel for concerts, etc.). If you choose to miss class for personal travel or other personal reasons, you are expected to use Canvas to keep up with course readings and assignments. Do not expect me to review with you the material you missed in class. You also will not have an opportunity to make up in-class work or participation credit.
9. Although you will likely be attending class meetings from home or another location where you may be used to dressing and otherwise presenting yourself very casually, please consider our live Zoom meetings to be semi-professional gatherings. You are expected to attend class fully clothed (as you would in person) and to refrain from engaging in on-camera activities that would be unacceptable if engaged in during a live class (brushing your teeth, smoking, drinking alcohol, vaping, bantering with friends and roommates, playing musical instruments, or singing, for just a few examples). Ask yourself: would this behavior be acceptable in a live class? If not, please don’t engage in the activity. If you have questions about this requirement, please ask me. If I deem that you are not fulfilling this course requirement, I will contact you to discuss improving your personal presence during class.

# VII. Student Information

# You have a right to know certain information that the College is required by law to provide. Links on [this page](https://coloradomtn.edu/your-right-to-know/) will connect you with helpful information including disability services, complaint processes, policies and procedures, textbook information, registration, attendance and grading, graduation rates, and much more.

# Students Rights and Responsibilities: The CMC Student Handbook, published annually and available online at <https://coloradomtn.edu/student-services/>, outlines the expectations for student conduct on campus and in classes as well as the college’s academic policies and expectations. Plagiarism is not acceptable in this class. Plagiarism is the act of taking ideas OR the word-for-word work of others and passing them off as your own. Whether intentional or not, plagiarism is an act of academic dishonestly and a violation of the CMC Student Code of Conduct. To avoid committing such a violation, please pay special attention in class to learning when and how to cite the sources of information you use in your research.

# Notice of Nondiscrimination: Colorado Mountain College does not discriminate on the basis of age, color, disability, gender identity, marital status, national or ethnic origin, political affiliation, race, religion, sex (including pregnancy), sexual orientation, veteran status, and family and genetic information, or in its programs and activities, as required by Harassment and Discrimination Prevention (Title IX) of the Education Amendments of 1972, Title II of the Americans with Disabilities Act of 1990, as amended, Section 504 of the Rehabilitation Act of 1973, Titles VI and VII of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, and as provided in other applicable statutes and College policies. The College prohibits sexual and gender-based harassment, including sexual assault, and other forms of interpersonal violence. To obtain more information regarding non-discrimination policies, visit <http://coloradomtn.edu/about-cmc/notice-of-nondiscrimination/> or contact Lisa Doak, Harassment and Discrimination Prevention (Title IX) Coordinator, ldoak@coloradomtn.edu, 970-947-8351, or Angela Wurtsmith, Director of Human Resources, awurtsmith@coloradomtn.edu, 970-947-8311.

# VIII. Course Schedule

The full course schedule is provided in Canvas via detailed weekly modules. Descriptions of all required readings and assignments are included within the Canvas site. Note that the course schedule may change due to unforeseen circumstances or opportunities or due to the need to improve student learning of particular aspects of course content.

# IX. CMC Libraries

Online library resources and services are available at <http://library.coloradomtn.edu> or from the Libraries link in Basecamp and Canvas.

You have 24/7 access to thousands of online journals, magazines, and newspapers, e-books and audiobooks, videos and images, career resources and practice tests.

Librarians are here to help you. You can use any or all of these ways to get help!

* Via email, 24/7 chat (AskAcademic), telephone, or video conferencing: <http://library.coloradomtn.edu/home/help>
* Video tutorials: <http://library.coloradomtn.edu/home/modules>

Consult your local campus for in-person services.

# X. The Research and Writing Center (RAW) and the Learning Lab

The RAW, located near the Steamboat campus library, is an excellent place for you to get in-person assistance with writing assignments for this class, including resume and portfolio writing. Use the RAW as a resource to improve your career preparation materials!

Another great resource for you is the CMC learning lab in Bristol 146. Scheduled **tutors** are available in most curricular areas, and tutoring services can be arranged one for additional subjects. The Learning Lab staff WANTS to help you! Visit their website for further information: <http://coloradomtn.edu/campuses/steamboat_springs/tutoring/>. Learning Lab staff can help to connect you with the virtual RAW as well.