

Instructor: Dr. Charles H. Mahler, Phone (570) 321-4351 or (570) 322-8840 (h), mahler@lycoming.edu

Office Hours: **Heim 202, MWF 10 AM – 12 noon**, by appointment, or drop by.

If you have questions or comments about anything in the course, please come see me. I am ready and willing to meet with you and discuss your concerns, answer questions, explain concepts, solve problems, etc. I would rather help you to understand something before a quiz or test or other assignment, than to find out you don't understand it while grading your work.

Class: meets **Tuesday** and **Thursday** from 1:00 to 2:50 PM in Heim 240.

Texts and Materials for Course:

Children of the Sun: A History of Humanity's Unappeasable Appetite for Energy. Alfred W. Crosby, W.W. Norton, 2006; *Energy: Physical, Environmental, and Social Impact.* Gordon J. Aubrecht, II, Pearson Addison Wesley, 2006; A non-programmable calculator

Evaluation and Grading:

Grades will be based on the following weighting scheme: 3 Exams (45%), a Final Exam (20%), Paper and Presentation (20%), and Quizzes (15%).

ALL EXAMINATIONS ARE COMPREHENSIVE, ESPECIALLY THE FINAL.

The following scale will determine the final letter grade: **A** \geq 90% > **B** \geq 80% > **C** \geq 70% > **D** \geq 60% > **F**. Plus and minus grades are included in these ranges and will be determined at the end of the semester. Adjustments to this scale are possible, but unlikely.

<u>Exams:</u>	<u>Exam 1</u>	Thursday, September 28, 2017
	<u>Exam 2</u>	Thursday, October 26, 2017
	<u>Exam 3</u>	Thursday, November 30, 2017
	<u>Final Exam</u>	Tuesday, December 12, 2017, 8:30 – 11:30 AM

Lecture Attendance and Absences:

Lecture attendance with textbooks is required. All lecture absences after three will be penalized 2 percent (of total possible points) per day. In order to miss an exam or quiz or graded class activity, the absence must be excused. Notification is expected as soon as possible for planned (athletic events, class trips) or emergency (illness) absences; call or e-mail me or the Department Secretary (570 321-4180). The cause of absences must be verified by a Dean or substantiated (note from coach or parent, doctor's excuse, etc.).

Exam Absences:

No make-up exams will be given. The (cumulative) final exam grade (as a percent) will be substituted for **one** excused absence exam grade (as a percent). Barring exceptional circumstances, **all** subsequent missed exams will receive a grade of zero.

Review Sessions:

A review session will be held before each exam. The reviews will be in Heim 215 or other announced room from 8:30 to 10 PM the Tuesday evening prior. This may be changed by a vote of the whole class. Keys for quizzes and exams will be posted on Moodle and/or reviewed in class. Final exam review time is TBA.

Quizzes:

Six quizzes will be given at the end of the period on Thursdays this semester: Sept. 14, Sept. 21, Oct. 12, Oct. 19, Nov. 9, and Nov. 16, 2017. The lowest quiz grade will be dropped, but no other quiz make-ups will be provided.

Miscellaneous:

Administrative procedures (withdrawals, etc.) will follow the published guidelines and rules of the college and department. There will be a class Moodle page.

General Comments:

Much of the course material involves a high degree of conceptual understanding (not simple memorization), so adequate preparation and study are essential. It is **not** sufficient to learn the material from the lecture alone - you should read and think about the topics covered **before** attending lecture. If you still can't get a problem or concept, please see me for help. We will cover much detailed and difficult material this semester, so our pace must be geared toward those who are prepared to learn.

Academic Honesty:

On anything submitted for a grade, copying someone else's work or allowing another to copy your work and submit it as their own is academic dishonesty and can lead to penalties such as failing the assignment or even dismissal from the college. Unless otherwise stated, all work submitted for a grade should be your own work (although you can study with others to understand the concepts). Always include citations for all sources consulted in papers or homework to avoid plagiarism. For further information on the college policy on academic dishonesty, see the *Pathfinder* or *Student Handbook*.

Scores will be posted, generally after exams, using a secret, four-character code chosen by each student. If you prefer not to have your scores posted, let me know (in writing) by Friday September 1, 2017.

Learning Objectives: In support of the Lycoming College Mission Statement and the College Philosophy, this course seeks to help students enrolled in it to “explore new concepts and perspectives” and “develop communication and critical thinking skills” as part of a “distinguished baccalaureate education in the liberal arts and sciences”.

College Policies:

Because this course meets a distribution requirement, it includes a writing component. At least 10 pages of writing must be produced by each student during the semester and some of those assignments will be formally evaluated for writing. I will be reserving some class or office time to help each student with written work.

Disabilities:

Lycoming College provides academic support for students who officially disclose diagnosed learning, physical, and psychological disabilities. If you have a diagnosed disability and would like to seek accommodations, please contact Jilliane Bolt-Michewicz, Assistant Dean of Academic Services/Director of the Academic Resource Center. Dean Bolt-Michewicz will help you arrange for appropriate academic accommodations. She can be reached by calling (570) 321-4050, emailing michewicz@lycoming.edu, or visiting her office (Academic Resource Center, 3rd Floor of Snowden Library).

Paper and presentation:

All students will write a research paper on a topic chosen from a list of topics on alternative energy and related themes. Each student will also make a presentation (on the same topic as their paper) in class. This presentation may be done as part of a larger group presentation on the same or related topics. Both the paper and the presentations will be due towards the end of the semester, with more information provided in class.

Field trips and other activities

We may have the opportunity to participate in field trips to energy-related sites, with time, date and topics to be announced. There may also be Center for Energy and the Future speakers or seminars or films or other activities of interest to students in this course, again with time, date and topics to be announced.

Although there is no lab for this course, we will do few simple hands on activities and experiments in class. Students are responsible for acting safely and following the instructions given.

Departmental policy:

The following are not allowed to be used during quizzes and exams: programmable calculators, cell phones, PDA's, headphones, smart watches, or other personal electronic devices.

Extra credit:

Extra credit will be offered sporadically, and is limited to a maximum of 1% of total points possible.

Energy Science Minor:

This is a required course for the Energy Science minor.