

Welcome to Honors Biology!

Biology 675

Philosophy

Energy is one of the major building blocks of modern society. Energy is needed to create goods and to provide services. Economic development and improved standards of living are complex processes that share a common denominator: the availability of an adequate and reliable supply of energy.

This course will deal with the issues of alternative energy sources. We will explore concepts and technologies to determine what is practical on a large scale, as well as on the scale of the individual homeowner. *Energy is not an end in itself. The fundamental goals we should have in mind are a healthy economy and a healthy environment., not just for this country but in global terms as well.* (Richard Blashizer, former president, Electric Power Research Institute).

Goals

After completing this course, you will be able to:

1. Evaluate the potential impact and liabilities of energy technologies.
2. Compare the benefits and challenges of energy sources.

Attendance

Regular attendance is expected at every meeting. Role will be taken during each class meeting. When students must be absent because of illness or emergencies they should contact the instructor in advance. A student may be dropped for missing four class meetings. Responsibility for making up work missed because of absence rests with the student.

Office Hours

Please contact the instructor at any time with questions concerning the course, an assignment, an upcoming quiz, etc.

Skyline College, 7214.

Phone: 650/738-4376.

E-mail: case@smccd.net



Requirements

All assignments must be completed to earn a passing grade. Class participation will be included in your grade.

Project	100 points
Draft EIR	20
In-class work	20
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Total	140 points
Grading	A \geq 88%
	B 75-87%
	C 60-74%
	D 45-59%
	F \leq 44%

Read each assignment before coming to class and be prepared to discuss the content and answer questions on the content.

Honors credit will be received in this and a concurrent 100 or 200 level biology course upon successful completion of this course.

Corequisite: Concurrent enrollment in any non-Honors Biology level 100 or 200 course.

The Grade of W

You may wish to withdraw from this class. If you withdraw prior to 2-11-11 nothing will appear on your record. If you withdraw between 2-11-11 and 4-28-11, a *W* will appear on your transcript. You will receive a *W* for exceeding four absences prior to 4-28-11.

Anyone exceeding two absences after 4-28-11 will get a final grade of F.

Project

You will work in groups of 3 students to write an Environmental Impact Statement. The project guidelines are online. You will receive your project and data in class.

Resources

Assignments, reading, and a glossary are posted on the BIOL 675 home page.

Go to <<http://skylinecollege.edu/case/>> and click on BIOL 675-Energy for the 21st century.



Class Schedule. Friday 1:10-2:00 P.M. Read the assignments *before* class. All of the readings are online at <http://skylinecollege.edu/case>.

<u>Date</u>	<u>Lecture</u>	<u>Reading/Assignments online</u>
Jan. 21	Introduction	Demographics
Jan. 28	Powering society	History of Power Questions due
Feb. 4	Conservation of energy	Energy and matter
Feb. 11	NEPA, CEQA, and your project	Environmental Events Project
Feb. 25	Electricity generation	<i>Bring The Power Plant</i>
Mar. 4	Fossil fuels	Carbon cycle
Mar. 18	Fossil fuels	Carbon cycle
Mar. 25	Nuclear	Nuclear power Draft EIR due
Apr. 1	Solar	Photovoltaics
Apr. 15	Wind and Hydro	Wind & water
Apr. 22	Alternative sources	Fuel cell
Apr. 29	Biomass and biofuels	Fermentation Biobutanol Biomass
May 6	Socioeconomic issues	Cost-benefit analysis
May 13	Student presentations	<i>Bring grading form and peer evaluation form</i>
May 20	Student presentations	<i>Bring grading form and peer evaluation form</i>

Come to every class with a few BioBucks. You will turn them for points as you answer questions in class.

