

This course is designed to provide you with a better understanding of our environment. It will encompass a local and global perspective on environmental issues, concepts and major areas including the four vectors of the environment: air, land, sea and groundwater. There will be supporting field experience and speakers throughout.

Course Resources:

“Living in the Environment” by G. Tyler Miller Jr. and R. Brewer, 16th ed.. or more recent. ISBN 0495556718 with support materials for each topic.

Readings may be distributed for following class meetings.

Access to a computer and the web is important as we will communicate about field experiences (www.ocvts.org/MATESbulletinboard)

Course Requirements:

- 1) **Participation is an important part of this course.** Participation which includes **attendance** and class discussion is worth at least 10% of the grade. Since we have limited daylight for field activities early in the term due to the season, labs, lectures and guest lectures will be especially important! You will also be asked to lead a class discussion on a topic which will be a part of participation as well.
- 2) There will be an evaluation after two or three weeks of topic material which will total of 40% of the final grade. There may be a quiz, but this is based on your participation in the course and getting involved in discussion. **There will be a field/ laboratory report and field/laboratory activities worth a total of 10% of the final grade. A Journal Book for class notes, field visits, experiences with a reflection after each class is an important part of this course.**
- 3) Each student will write a brief report after visiting a town environmental meeting, an environmental association, agency, or public meeting for a total of 5% of the final grade. Attending additional town meetings, environmental talks, etc... will include extra credit!
- 4) There will be a project that you develop on an environmental topic worth 25% of your final grade. You may work with up to two other partners, but the presentation may be a campaign to address an environmental topic, issue, law, or organization. The presentation should be about 15 minutes long individually (5 minutes longer for each team member). It can be technology based, include video, etc... We will schedule them after spring break through the end of the course.

Grading:

This course includes discussion and sharing of information. A summary of the grade breakdown is as follows...

Evaluations	40%
Project	25%
Journal Book	10%
Field/Lab	10% (This includes attendance)
Participation	10% (This includes attendance)
Report/Meeting	5%

All letter grades and assignment of grades will be in accordance with the policies of OCC. Here is my scale... A = 100 - 90%, B+ = 89-86%, B = 85 – 80%, C+ = 79 – 76%, C = 75 – 70%, D = 69 – 60%, Failing will be 59% and below.

Contact Information:

Please call me if you must miss class, for any reason. Also, if you have any questions regarding the course or materials, please contact me below:

John Wnek, work phone (609) 978-8439 (dial ext. 4002), cell (732) 814-6644

e-mail: jwnek@mail.ocvts.org
john_wnek@occ.mailcruiser.com

If the class must be cancelled for an emergency reason, I will contact each of you. I usually always have coverage and I do not miss classes! I will also set-up an e-mail group for the class to communicate. If it is due to inclement weather, please check with the college.

I will maintain a web page for the class to post notes and other information on the Web Advisor site and at www.ocvts.org/MATESbulletinboard

Detailed Course Schedule:

<u>Week</u>	<u>Topic</u>	<u>Corresponding Chapter(s)</u>
Day 1 January 26	Course Outline Distribution Introduction to Environmental Science Environmental Problems Local Issues Environmental History Can we be sustainable? Project Outline Available	Read Chapter 1 Supplement 2

<u>Week</u>	<u>Topic</u>	Corresponding Chapter
2/ February 2	Sustainability Challenges Local Resources <i>Lab on Sustainability</i> Excel Graphing Lab – Population Correlations	1
3/ February 9	Water Resources & Pollution Lab on Water Quality Analysis including Oxygen, pH, Suspended Solids, CO ₂ <i>Possible Guest Speaker</i> Lab on Abiotic Water Measurements	13 & 20
4/ February 16	Evaluation 1 (approx. One Hour) Air and Air Pollution Lab on Global Climate Change Including addition of CO ₂ to water bodies Ocean acidification lab analysis	18 & 19
5/ February 23	Natural Resources: A) Food and Soil <i>Lab on Soils</i> Settling Rate of Soils and causes of turbidity (using the turbidity tubes and meters) B) Geology & Minerals	14
6/ March 1	Soil Sampling Soil Sieving, Drying and Classification Organic growths <i>Possible Guest Speaker</i>	12
7/ March 8	Evaluation 2 (approx. One Hour) Biodiversity, Species Interactions & Populations Biodiversity and Evolution Lab on Adaptations and Biodiversity Journal Book Check #1	4 & 5
School Closed (spring break) March 15		
8/ March 22	Continued Population Ecology Emphasis on Human Impacts <i>Possible Guest Speaker</i> Prior to class: Meet at Greenwood Cemetary	6

<u>Week</u>	<u>Topic</u>	Corresponding Chapter(s)
9/ March 29	Ecosystems and significant factors Meet at Cedar Run Dock Road Stream (First) to collect samples for biological assessment <i>Team/Individual Presentations</i> Possible Watershed Ambassador Visit	3 & 7
10/April 5	Climate and Ecosystems <i>Field Experience at the Lighthouse Center</i> <i>In Waretown, New Jersey</i> <u>Case Study Essay Due</u>	Read 15 & 16
11/ April 12	Evaluation 3 (approx. one hour) Renewable and Non-renewable energy Review of Climate and Ecosystems Guest Speaker on Alternative Energy – the Smart Way <i>One Team/Individual Presentation</i>	15 & 16
12/ April 19	Guest Speaker on Barnegat Bay To be determined <i>Team or Individual Presentations</i> <u>Meeting Reports Due</u>	Read 8 & 11
13/April 26	Aquatic and Estuarine Biodiversity Barnegat Bay Ecology <i>Collection of Species at Barnegat Bay</i> <i>at Ship Bottom prior to reporting to MATES</i> <i>Team/Individual Presentations</i> Take Home Evaluation (#4) will be available Work on Projects	8 & 11
14/ May 3	Final Review and Field Experience Work on Final <i>Last Team/Individual Presentations TBD</i> <u>Journal Books Due for Grading</u>	
<i>Possible Vessel Excursion on Barnegat Bay 5:00 pm from Waretown</i> <i>Class may report to the Bay Cruiser in Waretown for 2 hours</i> <i>Activity and back to MATES if presentations were not finished on May 10</i>		
F/ May 10	<u>Evaluation 4: Turn in Final Exam</u> Any final presentations not completed	