MIDDLESEX COMMUNITY COLLEGE

INTRODUCTION TO ENVIRONMENTAL SCIENCE

EVS*100 (Section 01, CRN #1090)
Spring 2019

An overview of biological and physical processes in the natural environment, and the impact of human activities. The course will explore current environmental issues both locally and globally, and critically evaluate potential solutions. Topics will include threats to species and ecosystems, overpopulation, land use, air and water pollution, resource depletion, climate change, energy resources, and waste management. *Prerequisite: Eligible for ENG*101E or ENG*101. 3 credits.*

Contact Information

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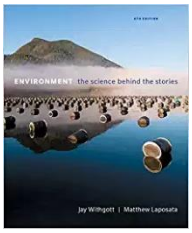
Office Hours: Monday, Tuesday, Wednesday 12:30-2:30 pm and by appointment (link below
Appointments: Choose an appointment that works best for you at https://cwitkowski.youcanbook.me/

Problems? Contact me promptly by phone, e-mail, or in class with any questions or concerns! I will generally respond to emails within 24 hours, except on the weekends (when I do take some time off)! If you do not hear back from me, check the email and try again. Note that there is another Christine Witkowski in the community college system!

Questions? I encourage you to use the discussion board set up for this purpose in the "Syllabus & Course Info" section under "Questions." Using the discussion board will make the information available to other students who might have the same question. You should get in the habit of checking the questions already posted before posting your own question.

Textbook *(required)*



Environment: The Science Behind the Stories, Withgott & Laposata
Sixth Edition (6/e) Pearson 2018 (ISBN: 9780134204888)

Course Outcomes

This course is designed to achieve the broad goal of developing your *environmental and science literacy.* As a result of this course you will:

- Develop an awareness and appreciation of the natural and built environment.
- Expand your knowledge of natural systems, physical processes, and ecological concepts
- Outline the process and distinguishing characteristics of scientific inquiry.
- Increase your understanding of current environmental issues.
- Use critical thinking and problem-solving skills to evaluate environmental issues.
- Recognize your individual contributions to environmental problems and potential solutions.
- Read with comprehension from a variety of sources about environmental issues.
- Critically evaluate sources information about environmental issues.
- Interpret environmental data presented in map, chart, and graphic form.

Content Objectives:

- Outline major environmental problems at local, regional, national, and global levels
- Compare and contrast environmental issues for developed and developing countries
- Defend an opinion of how specific environmental problems might be solved
- Understand current environmental issues in comparison to changes in past environments.
- Summarize the methods, applications and limitations of the scientific method
- Define *sustainability* and discuss the principal prerequisites for a sustainable society
- Explain the conservation of matter and energy in living systems
- Outline the flow of energy and nutrients through *ecosystems* and the earth system
- Describe the development and organization of biological communities
- Compare and contrast general patterns of population growth and regulation
- Review the history, impacts, and possible future of human population growth
- Define *biodiversity* and assess its importance to the environment and in meeting human needs.
- Discuss background and mass extinction and the role of human activities in species extinction
- Describe the distribution, use, and management of world water supplies
- List and describe the sources of common air and water pollutants
- Outline methods of reducing air and water pollutants in the environment
- Describe patterns and impacts of land use practices.
- Discuss the causes and impacts of declining biodiversity in marine ecosystems
- Summarize the greenhouse effect and factors contributing to climate change
- Understand the significance of human contributions to the current climate crisis
- Outline the present and future effects of climate change on physical and biological systems
- Evaluate the costs and benefits of non-renewable as well as sustainable energy use
- Describe the use of natural resources in modern society and solid waste management practices.

Course Work

You will find all course materials and assignments listed under "Weekly Work" where you will see each one-week unit in the course, the dates the unit will be covered, and the objectives for that unit. When you click on the unit headings, you will find the following sections *(as each unit becomes available during the semester):*

Reading: Reading selections in the required textbook will be provided for each unit. We will not necessarily cover the chapters in order, and will sometimes read selections from more than one chapter in a week. You will do best in this course if you take notes on your reading and study these notes just as you would for a classroom course.

Videos & PowerPoint Lectures: video links and short PowerPoint presentations narrated by the instructor will be included in each unit. A printable handout of the slides will be provided so that you can take notes as you listen to the narration and refer back to the slides during the reading and activities.

Discussion Board: Associated with each unit is a discussion board specifically for questions and comments about the material. I will post several questions for further discussion, and you may also post questions that you have about the material. A portion of your course grade will be based on participation in these discussions. I will read and evaluate each discussion post, and jump in occasionally as needed.

Activities: Each unit contains an activity designed to help you explore the material in more detail. The activities will vary depending on the topic, but may include exploring internet sources of information, evaluating personal environmental impacts, and interpreting maps, charts, and graphs.

Quizzes: You will complete one quiz during each unit to demonstrate that you have completed and understood the lecture & reading. You will do best on the quizzes when you have taken notes on the lecture & reading, reviewed your notes prior to the quiz, and "know" most of the material as you would for a closed-book quiz in a classroom.

News Reports*:* You will complete a report based on recent news articles relating to the environment during the semester. You can find articles from a variety of on-line news sources. A list of possible Internet sources is included under "News Reports" along with a report template and grading rubric.

Checklist: Refer to the checklist for each unit to make sure that you complete all required work. There will be a number of different things to do in each unit, so printing out the checklist or copying it into your calendar will be a good way to stay on top of things.

Bonuses: Opportunities for bonus points will be posted at various times throughout the semester. Note that ***no individual extra credit assignments will be available***; you should focus on doing the assigned work and taking advantage of the bonus opportunities available to everyone in the course.

Grading

Activities	25%
Quizzes	25%
Discussion Board Participation	15%
News Reports	5%
Exams	30%

Late Policy:

- Late assignments and quizzes will be accepted *no later than* 2 days following the deadline with a grade penalty of 10%.

- ***No unit work will be accepted beyond the late deadline*** unless arrangements are made *prior to the deadline* for severe circumstances such as debilitating illness, death in the family, or legal/religious obligations; documentation will be required.
- To accommodate possible technology glitches, *one* "freebie" (i.e. no penalty) re-do/extension of up to 2 days will be granted *upon request* to each student during the semester.
- Your lowest quiz grade will be dropped, therefore if you receive a zero for a missed quiz, that zero will be dropped at the end of the semester.

Schedule

This course will require as much time as the equivalent course taught in the classroom. In a "regular" 3-credit course, you would meet in the classroom for 3 hours per week. Instructors generally expect that you will study 1 to 2 hours for every hour in the classroom, for ***a total of 6 to 9 hours per week per 3 credit course***. So the same holds true for an on-line course, except that the 3 hours of in-class time will now be time that you are putting in on-line.

The schedule of units in the course is provided below. Note that the contents of each unit folder will not be available until the listed starting date for each unit. The official start day for each unit will always be a **Thursday**, and the due dates for unit work will generally be on **Wednesdays** (end of day; 11:59 pm).

WEEK	DATES		UNIT
1	Thurs. 1/24	Wed. 1/30	Orientation
2	Thurs. 1/31	Wed. 2/6	Science & Sustainability
3	Thurs. 2/7	Wed. 2/13	Population Growth
4	Thurs. 2/14	Wed. 2/20	Biodiversity & Extinction
5	Thurs. 2/21	Wed. 2/27	Ecosystems
6	Thurs. 2/28	Wed. 3/6	**EXAM 1**
7	Thurs. 3/7	Wed. 3/20	Oceans & Overfishing *(includes Spring Break 3/11-3/15)*
8	Thurs. 3/21	Wed. 3/27	Water Use & Pollution
9	Thurs. 3/28	Wed. 4/3	Agriculture & Food Supplies
10	Thurs. 4/4	Wed. 4/10	**EXAM 2**
11	Thurs. 4/11	Wed. 4/17	Energy Resources
12	Thurs. 4/18	Wed. 4/24	Air Pollution
13	Thurs. 4/25	Wed. 5/1	Climate Change
14	Thurs. 5/2	Wed. 5/8	Resources & Waste
15	Thurs. 5/9	Wed. 5/15	**EXAM 3**

**Work may be submitted up to 2 days past posted deadlines with a 10% penalty.*