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**Instructor:** Dr. Victoria Petryshyn

Email: [petryshy@usc.edu](mailto:sohm@usc.edu);

Office hours: 1-3pm Tuesday (and by appointment)

Office: CAS 108.

**Section:** 33000R (TuWTh 9-1150am)

**Units:** 4.0

**Room: WPH 207**

**Prerequisites:** none

**Text:** Friedland, Relyea, & Courard-Hauri. Environmental Science: Foundations and Applications. W.H. Freemam & Co., 2011 ISBN-13: 978-1-4292+4029-1 (Recommended)

**Course description:**

This course will give you an overview of how the natural world works, the ways in which humans are perturbing the natural world, and the ways in which governments and society are (or are not) addressing environmental degradation. This course satisfies a GE-C (Social Analysis) requirement. As such, it will deal with the causes and consequences of complex problems.

**Course Learning Objectives:**

* Gain knowledge of the physical, chemical, and biological aspects of the environment
* Understand issues facing the environment from a scientific and social perspective
* Explore how environmental issues affect humans, from multiple perspectives
* Understand the empirical evidence behind pressing social issues such as climate change and food security
* Discuss solutions to environmental degradation through law, policy, and human behavior

The course is structured so the first third is focused on basic information about how the Earth system works. The second third will focus on environmental issues that arise on Earth (such as biodiversity and ecology). The last part of the course will focus on human/social impacts.

**Course requirements and expectations:**

* Come to class prepared and engage in discussions - I know it starts early but being tired is not an excuse to skip class (or at least not a valid one)
* Be respectful of me and other students in class
* Please leave cell phones outside the classroom or turned off
* If you have to miss class make sure you arrange to get notes and announcements.

**Other course information:**

This course will use Blackboard for communication, information and turning in assignments. I will make lecture slides available in pdf form before class, however NOT ALL INFORMATION WILL BE INCLUDED. In fact, you can bet that graphs, pictures, and concepts missing from the posted powerpoint slides will make an appearance on the midterms. I will also post and accept assignments on Blackboard. Some additional readings may be assigned periodically throughout the semester, and these will be announced in class, posted on Blackboard, and an email reminder sent to the class.

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| **Grading:**  Midterm 1 100 pts  Midterm 2 100 pts  Final exam 150 pts  Written assignment 50 pts  In class debate 50 pts  Attendance/Participation 50 pts | **Grading scale: A range = 90.0-100%**  **B range = 80.0-89.9%**  **C range = 70.0-79.9%**  **D = 60.0-69.9%**  **F = <59.9%** |

All three exams will cover material immediately after the preceding exam (or beginning of class for midterm 1) up to the exam. The final exam will NOT be cumulative. Exams will focus on lecture and reading material. During exams, students will NOT be allowed to have notes, books, cell phones, etc. Only pens/pencils and a calculator are required. Failure to comply with exam policies will automatically result in a grade of “0” for that particular exam.

**Late/make-up policy:**

If there is a conflict with an exam, you must email the instructor *1 week in advance* to see if arrangements can be made (under reasonable circumstances). Otherwise, make-up exams will not be given except in extreme emergencies. Make-up exams will also be more difficult, so it is in your best interest to take the exam on the day it is scheduled. If you have an emergency on exam day, you must get in touch with us before the exam if possible. Assignments will not be accepted late.

**Academic Conduct:**

**Plagiarism** – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences.  Please familiarize yourself with the discussion of plagiarism in the *SCampus* University Student Conduct Code, Section 11, *Behavior Violating University Standards* [https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions](https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/).  Other forms of academic dishonesty are equally unacceptable.  See additional information in *SCampus* and university policies on scientific misconduct, [http://policy.usc.edu/scientific-misconduct](http://policy.usc.edu/scientific-misconduct/). As a member of the Trojan community, plagiarism is beneath you. Don’t do it.

**Discrimination, sexual assault, and harassment are not tolerated by the university.**  You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu> or to the *Department of Public Safety* <http://adminopsnet.usc.edu/department/department-public-safety>.  This is important for the safety of the whole USC community.  Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person.  *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage <http://sarc.usc.edu> describes reporting options and other resources.

## **Support Systems:**

A number of USC’s schools provide support for students who need help with scholarly writing.  Check with your advisor or program staff to find out more.  Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students.  *The Office of Disability Services and Programs* <http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html> provides certification for students with disabilities and helps arrange the relevant accommodations.  If an officially  declared emergency makes travel to campus infeasible, *USC Emergency Information* [*http://emergency.usc.edu*](http://emergency.usc.edu)will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

**Emergency Preparedness/Course Continuity in a Crisis**

In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies.

**Lecture Schedule (This may be modified- Roll With It)**:

**Wed, June 28: How This Class Works**

Introduction and Goals: What is a Wicked Problem?

What is science? How do we study the planet?

**Thur, June 29: How Stuff Works (Basic Science Principles)**

Matter, energy and change;

Basic Physics;

**July 3- 4: Independence Day Holiday! No Class!**

**Wed, July 5: How the Earth Works**

Plate Tectonics and the Rock cycle

Distribution of Natural Resources

The Hydrologic Cycle- Water Basics

**Thur, July 6: How Biology Works**

Biology basics

Evolution basics

The record of evolution

**Tues, July 11: How Ecology works**

**MIDTERM 1**

Biodiversity

**Wed July 12: Population, Growth, Community Ecology**

Principles of Ecology

Species Ecology

Population and community ecology

**Thur, July 13: Biodiversity**

*Writing assignment presented*

Ecosystem ecology

Biodiversity and conservation biology

**Tues, July 18: Land and Agriculture**  
 Natural Resources and biology

Land Use

**Wed, July 19: Agriculture and Food**

Agriculture and food   
 Non-renewable energy

**Tues, July 20: Energy**

Renewable and Nonrenewable energy

Air and water pollution

**Wed July 21: Pollution**

**MIDTERM 2**

Pollution

*Debate topics presented*

**Thurs, July 22: Waste**

Solid and E-waste

*Student debate topic preferences turned in*

**Tues, July 25: Sustainability**

Sustainability

*Debate topics assigned*

**Wed, July 26: Putting it all together: The Climate Change Bonanza**

Science of climate change

Climate change through Earth History

**Thurs, July 27: Climate Change Continued**

Social science of climate change

**Tues, Aug 1: Climate Change Continued**

Social science of climate change

**Wed, Aug 2: Catch up class**

**Thur, Aug 3: In-class debates**

**Tues, Aug 8** **Final exam**