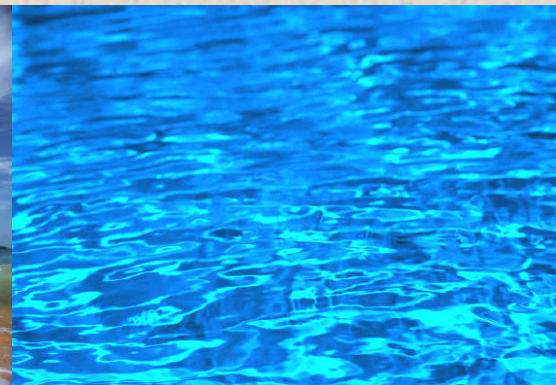


ENVIR 215 – Spring 2004

Earth, Air, Water: The Human Context



Lectures: T Th 9:30-10:20, *Ocean Teaching Building 205*

SLN:

Sections: AA T Th 10:30-12:20; AB 1:30-3:20 (Priority Registration for Honors), *Ocean Teaching Building 206*

This is a lecture/lab course involving both ideas about the structure of our environment and hands-on experiments in the laboratory. It is a study of the way our physical environment works and works with us. Though aimed particularly at *non*-scientists, the experiment/discussion format is such that science students can participate at their own pace, and experience classical science “taken outdoors.” The context is a survey of 20th Century environmental change: air, water, earth, and their inhabitants. Laboratory experiments will, for example, explore energy flow and transformation, simulate the destructive force of a hurricane, initiate a search into particles and trace chemicals in the air we breathe, map fresh water flowing in underground “rivers”, and study oxygen production and consumption in a “microcosm” of life in a test-tube. Tours of research facilities in Oceanography and Atmospheric Sciences will demonstrate how close these class experiments are to cutting-edge science. The experimental focus will then grow to confront direct and long-term impacts, and particularly the way human activity combines with natural cycles to make unexpected change. We include human-health and economic issues. (e.g. What is the energy profile of a particular country, and how would it be affected by developing solar energy devices? How much will a glass of clean water cost in 2035, how many of us can have one, and how shall we know that it is clean? What kind of particles and trace chemicals are there in the air we breathe, and should we worry about them?) The course will touch on the aesthetic: art and science meet conveniently in the lab, and our sense of ideal environments is subjective and changeable.

Instructors:

Peter Rhines – *Professor, Oceanography & Atmospheric Sciences*

Eric Lindahl – *Laboratory Engineer & Instructor, Oceanography*

Textbook:

Something New Under the Sun: An Environmental History of the Twentieth-Century World, by J.R. McNeill, W.W. Norton Co., NY, 2000.

Course Website: www.ocean.washington.edu/courses/envir215