

Exploring the World's Oceans – Course Syllabus Fall 2015

Course Summary

Welcome to Exploring the World's Oceans! This course is a general introduction to the global oceans. The course is entirely online, meaning that there is certain flexibility in when and where you do the course work. That flexibility means that you are solely responsible for keeping on schedule and making sure you complete all assignments on time (a full schedule is provided below). Regardless of whether you want to become an ocean scientist, a lawyer, business person or a teacher - the ocean will have a large impact on your life. The oceans regulate the planet's climate and weather, provide food and energy, and are fundamental to the global economy. Having an understanding and awareness of the ocean and its role in shaping our planet is important. This is especially true today more than ever, as your generation will face big decisions about how humanity will manage and use the world's oceans. This course will provide a broad overview of the history, chemistry, physics and biology of the oceans. Once you have a general ocean understanding, we move into a series of lectures that deal with some of the big policy issues your generation will deal with. Your final paper of the term will be focus on summarizing an ocean policy of your choice, and debating the pros and cons.

Lecture Schedule

The red text provide the major dates for quizzes and the paper. Weekly assignments are as noted within each lecture.

DATE	FOCUS
September 3, 2014	Class Introduction & Navigation
September 8, 2014	Human Exploration of the Ocean
September 10, 2014	Birth of Oceanography
September 15, 2014	Formation of the Earth
September 17, 2014	Continental Drift
September 22, 2014	Plate Tectonics
September 24, 2014	Ocean Structures & the Seafloor
September 29, 2014	Water's Chemistry (why water is awesome!)
October 1, 2014	Salt in the Ocean
October 6, 2014	Ocean Currents and Tides
October 8, 2014	Light in the Ocean
October 13, 2014	Carbon Chemistry in the Ocean
October 15, 2014	(Quiz 1)
October 20, 2014	Phytoplankton
October 22, 2014	Zooplankton
October 27, 2014	Invertebrates (Approval of Policy Paper)
October 29, 2014	Fish
November 3, 2014	Marine Mammals
November 5, 2014	Deep Sea Communities
November 10, 2014	Sea Monsters – Marine Creatures in Pop Culture
November 12, 2014	(Quiz 2)
November 17, 2014	Changing Ocean (pH)
November 19, 2014	Changing Ocean (fisheries & aquaculture)
November 24, 2014	Law of the Sea
December 1, 2014	Changing Ocean (Geoengineering)
December 11, 2014	Policy Paper Due

Grade Breakdown

ITEM	NOTES	VALUE
Weekly Assignments	There will be a total of 10 weekly assignments. Do them ALL, on time! Late assignments will not be accepted. Each is short and based on the lecture. This is an easy way to get 25% of your grade just by keeping up.	25%
Quiz 1	Covers Lecture 1 through Light in the Ocean, inclusive. You can take this online on October 15 th (any hour, must be complete before midnight)-no exceptions. Open book.	20%
Policy Paper Topic	A brief explanation of your desired policy paper topic, why you chose it, and how you will go about researching it. Hand this in using dropbox no later than October 20 th .	5%
Quiz 2	Covers Carbon Chemistry through Deep Sea Communities, inclusive. Take this online on November 12 th (any hour, must be complete before midnight) no exceptions. Open book.	20%
Policy Paper	White paper on a controversial marine policy. You will explain the controversy, discuss pros and cons, and make a closing argument for or against. A detailed breakdown of required content and structure will be provided. Hand this in using the dropbox no later than December 11 th .	30%