Earth Sciences 1107: Field-Based Introduction to Oceanography

Semester Credit Hours - 2 undergrad

Objectives
The goal of this course is to develop an understanding of the global ocean, its characteristics, its important fundamental processes, and the interrelationships of its physical, chemical, biological, and geological systems. We will also develop an appreciation of the important effects of the ocean on global climate and global change.

Text
Investigating the Ocean
By: LECKIE
Edition 3RD 03
Publisher: MCG
This is a customized printing of a portion of Investigating the Ocean and can only be purchased through the Marion Bookstore website after May 1 at: osumarion.osu.edu. Select “Bookstore” (in the Our Quick Links drop-down box). More detailed instructions regarding this website will be mailed to students the beginning of April.

Grades
Grades will be assigned on the basis of two quizzes (25% each) and laboratory exercises (50%).

Tentative Schedule
Sunday evening  Introduction, history of oceanography
Monday morning  Physiography of the oceans (Ex. 1, 2, 3)
Monday afternoon  Biolab cruise; lab session
Monday evening  Formation/evolution of ocean basins (Ex. 4, 5)
Tuesday morning  Physics/chemistry of seawater (Ex. 7, 8)
Tuesday afternoon  Ocean circulation (Ex. 9, Supplemental labs)
Tuesday evening  Open
Wednesday morning  Quiz 1; Kelleys Island fieldtrip
Wednesday afternoon  Ocean circulation (Supplemental labs)
Wednesday evening  Open
Thursday morning  Waves and tides (Ex. 11, 12, 13)
Thursday afternoon  Biological systems in the ocean (Ex. 14, 15, 16)
Thursday evening  Biological systems (if necessary)
Friday morning  Field trip: Lake Erie shore
Friday afternoon  Lake Erie shore
Friday evening  Marine sediments
Saturday morning  Quiz 2; finish exercises

Instructor:  Dr. Lawrence A. Krissek
School of Earth Sciences, The Ohio State University
Phone: 614-292-1924
Email: krissek.1@osu.edu