

Description

This course deals with the sources, distribution, and transformation of chemical constituents of the oceans, and the processes that control them. Topics include: composition of major, minor and trace-elements in the oceans; air-sea interactions; the carbonate system; organic carbon; micronutrients; and contaminants. The emphasis will be given to biologically or climatically significant elements such as carbon, nitrogen, phosphorus, iron and mercury in the Arctic Ocean.

Prerequisite

ENVR2550 (Environmental Chemistry) AND GEOG 2930 (Introduction to Oceanography)

OR

Department Head approval.

Instructor

Dr. Feiyue Wang

Office: 588 Wallace Building

Phone: 474-6250

E-mail: wangf@ms.umanitoba.ca

Web: <http://home.cc.umanitoba.ca/~wangf>

Lecture Section

8:30am-11:30am, Wednesdays, Term 2

129 St. John's College

Office Hours

14:00 - 15:00, Tuesdays and Thursdays.

(You can also drop by my office anytime and I will see you if I am not busy.)

Optional Textbooks

Broecker W.S. and Peng T.H. 1982. Tracers in the Sea. Eldigio Press, New York. (can be downloaded from <http://www.ldeo.columbia.edu/~broecker>)

Millero F.J. 2013. Chemical Oceanography, 4th Edition. CRC Press.

Sarmiento J.L. and Gruber N. 2006. Ocean Biogeochemical Dynamics. Princeton University Press.

Additional material will be handed out in class or posted at the course website.

Marks

Assignments: 30%

Term paper & presentation: 30%

Final exam: 40%

The Grading Standard for this course is as follows:

A+ (90-100%) B (70-74%) D (50-59%)

A (80-89%) C+ (65-69%) F (0-49%)

B+ (75-79%) C (60-64%)

Policy Regarding Late Assignments

Students will not be permitted to write make-up tests or hand in assignments late, except for documented medical or compassionate reasons.

Evaluative Feedback

No evaluation will be provided by the voluntary withdrawal date.

Academic Integrity

It is your responsibility to acquaint yourself with the University Policy on plagiarism, cheating, and examinations. The copying of another student's assignment or the submission of the same material for two or more courses is plagiarism. Plagiarism and any other form of cheating in examinations, labs, or term tests are subject to serious academic penalty. The full definition of plagiarism and the possible penalties associated with it can be found in the Undergraduate Calendar. If your submitted assignment contains material you have copied from another source (e.g., parts of another person's assignment, or from a textbook, or from the published literature, or from a website) you must give proper credit to that source.

Pandemic Statement

Should major disruptions to university activities occur as a result of a pandemic, the course content, marks breakdown, and other provisions of this document may be adjusted as the circumstances warrant.