

Marine Microbiology (EOSC 475) Course Outline

4 January – 14 April 2010

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Lecture:	Mon, Wed, Fri (1100-1200)	West Mall Swing Space 305
Office Hours:	By appointment	

Learning Objectives: This course will give you the tools to 1) DESCRIBE the environment in which marine microbes live, as well as their composition, distribution, abundance, productivity and function in the sea; 2) EXPLAIN the dynamics of microbial systems, and the linkages among different microbial components; 3) PREDICT the abundance and biomass of microbes in the sea; 4) PREDICT rates of nutrient and carbon flow from a few microbial parameters; 5) INTERPRET data on microbial abundance, rates and diversity; 6) DESIGN an experiment to measure microbial rate processes and diversity; 7) INTEGRATE the central role that microbes play into global processes. This course will give you a broad understanding of the biological and genetic diversity of bacteria and viruses in the ocean, and the roles that they play in marine ecosystems.

E project: There is a requirement to produce an in-depth and critical examination of a topic directly related to the course using UbcWiki (<http://wiki.ubc.ca/>); the topic **must be approved**. This takes the place of an essay. The topic must be approved by 1 February and an **annotated** bibliography must be up on the Wiki by 1 March. The final project is due on 7 April.

Plagiarism will result in a grade of 0 (see <http://www.vpacademic.ubc.ca/integrity/policies.htm>).

Exams in the course will be comprehensive, and will cover all material in the course up to the point of the examination. Previous examinations are posted on Webvista, and include true/false, definitions, calculations, short answers, longer answers and on the final exam, an essay.

Course Marking Scheme:

Midterm Exam	20 %
Final Exam	40 %
E Project	20 %
Participation (broken down as follows):	20%
Diagnostic Quizzes (2)	2%
In-class Quizzes & Problem sets (3)	3%
In class and Vista Bulletin Board participation	5%
Problem-Solving Exercise	10%

Class Policies: Missed exams, quizzes and assignments will not be rescheduled; marks will be based on work that is completed. University policies will be in place for a missed final exam. If you cannot complete an assignment on time, talk to me as soon as you know. I will always do my best to help you cope with legitimate difficulties. You may be asked to provide documentation. Please post questions on the Discussion Board on WebVista, with an email alerting me that a question has been posted. I encourage you to respond to questions posted on the Board, if you are able to help the poster. Your participation in-class and on the Bulletin Board and will contribute to your course grade.

Textbook: There is no textbook. The course is largely taught from the primary literature. This has the advantage that you save money; it also means that you will find it difficult if you miss lectures.