OCN 750 Molecular Methods in Microbial Oceanography
CRN: 89707

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Meeting location & time: MSB 315, Mondays 13:00 – 14:30
Prerequisites: Upper division biology or permission from instructors

Course Description
Over the first half of this seminar course, we will discuss the history and theory behind some of the fundamental methods and principles of molecular biology. During the second half, we will examine advanced methods, with an emphasis on current scientific literature demonstrating their application to the field of microbial oceanography.

During Week 1, we will introduce the course and optimize the semester schedule to accommodate the enrolled students. In the following weeks, students will present and discuss original research articles. Students can expect to read two to three papers per week, and will be expected to participate in discussions regarding the methods and their application. After completion of this seminar course, students will be familiar with a variety of fundamental and advanced molecular biology methods, and understand how they can be applied to help understand the ecology and evolution of marine microorganisms.

Tentative course schedule, pending student input:

Week	***Date***	***Topic***
1	Jan 7	Introduction/expectations/scheduling
2	Jan 14	Nucleic acid extraction
--	Jan 21	No class - MLK Day
3	Jan 28	Polymerase chain reaction
4	Feb 4	Cloning
--	Feb 18	No class - Presidents Day
5	Feb 25	Gene Sequencing/BLAST
6	Mar 4	Alignments/gene trees
7	Mar 11	Quantitative PCR
8	Mar 18	Advanced topic TBD
--	Mar 25	No class - Spring Break
9	Apr 1	Advanced topic TBD
10	Apr 8	Advanced topic TBD
11	Apr 15	Advanced topic TBD
12	Apr 22	Advanced topic TBD
13	Apr 30	Advanced topic TBD