MICROBIAL ECOLOGY (MB 448/548)
WINTER 2017
Instructor: Dr. Kimberly Halsey, Nash Hall, Rm. 354, Phone 541-737-1831, email, halseyk@science.oregonstate.edu
Jan 9- Mar 17 (Finals are the following week, see below)
Course Objectives.
(1) To obtain an overview of the diversity of metabolic capabilities in the microbial world and place it into an ecological context.
(2) To provide an overview of the essential roles that microorganisms play in some of the environments on Earth.
(3) To generate an understanding of the physical and chemical characteristics of natural environments that interact with microbial life and influence its activities.
(4) To develop an understanding of the interactions that occur among microorganisms that are essential for life to exist on Earth.

Course outline.
(1) The concepts of microbial ecology.
(2) Microbial energetics and its links to ecology.
(3) Microbial ecology of aquatic ecosystems: the water column, marine and fresh water.
(4) Comparison of aquatic, sediment, and terrestrial ecosystems.
(5) Carbon, nutrient, and energy exchange between trophic levels.

Course format. Three lectures per week, MWF 11:00 am to 11:50 am.
Undergraduate recitation: TBA, depending upon class schedules.
Graduate recitation. TBA, depending upon class schedules. Room TBA.

Textbook: None specified.
Specific handouts will be provided in class and on Canvas.

Exam schedule:
1. MIDTERM: TUESDAY, Feb 7, 2017, Evening. 5:30pm to 8:30pm, NASH HALL Rm. 206
2. FINAL EXAM: FRIDAY, March 24, 2017, 7:30 to 10:30 am, STRAND AG 212.

For undergraduates, the mid-term will be worth 45%, the final 50%, and recitation participation 5% of the total grade.

For graduate students, midterm and final written exams will be each worth 45% toward the final grade. Other assignments/presentations will account for the remaining 10%.