

Submit originals and one copy and electronic copy to **Governance/Faculty Senate Office**
(email electronic copy to fysenat@uaf.edu)

Department

Biology and Wildlife

College/School

CNSM

The attached syllabus must clearly reflect the following basic elements for a class to be **WRITING INTENSIVE**. Please note them directly on the syllabus using the corresponding letter. (See Guidelines in this manual.)

A A majority of the final grade is derived from writing activities

B A research paper/project

C Personal conference with the student

D Drafts/revisions/Feedback

APPROVALS:

JUSTIFICATION FOR ACTION REQUESTED

[REDACTED]

ATTACH COMPLETE SYLLABUS (as part of this application).

Note: The guidelines are online: <http://www.uaf.edu/uafgov/faculty/cd/syllabus.html>

The department and campus wide curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items are missing or unclear, the proposed course change will be

Syllabus CHECKLIST for all UAF courses

During the first week of class, instructors will distribute a course syllabus. Although modifications may

**BIOL 4XX/6XX
CHEM 6XX
ENVE 6XX
Environmental Microbiology**

Instructor: Dr. Mary Beth Leigh

Office: 228 West Ridge Research Building (WRRB)

Phone: 474-6656

Email: mbleigh@alaska.edu

Office hours: XXXXXXXX or by appointment

Class time and place

Tuesday and Thursday 9:45-11:15

Course overview

This course provides a comprehensive overview of the role of microorganisms in environmentally-relevant processes including bioremediation of pollutants, biogeochemical cycling and wastewater treatment, and covers modern molecular methods for studying microbes in the environment. Upper level undergraduate and graduate students in Biology, Environmental Chemistry, Environmental Engineering or other related disciplines will gain expertise in microbial processes with an emphasis on their application to environmental quality issues.

Students should have taken BIOL 115/116 (Fundamentals of Biology), BIOL 342
(Microbiology) and CHEM 105/106 (General Chemistry) or equivalent, or permission of

- Develop literature research, writing and oral presentation skills

Course format: Lectures with supporting readings from textbooks and primary scientific literature will form the knowledge base of the course. Journal articles relevant to the current topic will be assigned for critical group discussion.

Assignments: The goals of these exercises are to help develop research, writing and oral

presentation/teaching skills important to success in their postgraduate scientific careers.

- *Reading questions:* When journal articles are assigned for reading and discussion, reading questions (short answer) will also be assigned which should be completed before the beginning of the discussion class period.
- *Invisible Jungle:* Practice skills in communicating science to the public by developing a short (2-min) radio story about a topic in environmental microbiology. See

Course evaluations: I welcome your positive and negative comments at any time. Opportunities to provide anonymous evaluations will be provided at the middle and end of semester.

Students with disabilities

IAEW ... opportunities for all students. Students with even minor disabilities

... students who are the first in their families to attempt a four year college degree, or students



Experimental Microbiology - Tentative schedule - Subject to change. Additional reading assignments will be made during the semester from

