University of Alaska Fairbanks
Bristol Bay Campus

Course Syllabus

Term:	Spring 2016
Course Title:	Introduction to Water Quality II: Monitoring and Assessment
Dept. & Num:	ENVI 111
Credits:	1 (1+0)
Grading:	Letter Grade
Prerequisites:	ENVI 110 or consent of instructor
Dates:	TBD
Days - times:	Monday thru Thursday, 8:00 am to 4:30 pm
Location:	

- describe safety procedures while testing water quality.
- calibrate their Hanna and/or YSI water quality meter(s).
- pass performance standards for precision and accuracy for all the water quality tests.
- perform the SOP for macroinvertebrate collection, sample processing, and data analysis.
- describe proper collection, storage, evaluation, correction, database archiving, and reporting of water quality data collected.
- work with an outside lab to obtain water quality data.
- access information on water quality standards in Alaska.
- deploy and retrieve temperature data loggers, and download and store temperature data.
- electronically store and manage their data.
- begin work on drafting their own QAPP using a template

Instructional Methods

The course will use a combination of lecture, laboratory, and field experiences. Laboratory and field sessions are intended to provide opportunity for students to conduct water quality sampling, testing, and data recording to satisfy the requirements of a QAPP. Lectures will include supplemental topics to assist students in data quality assurance, along with special topics dealing with water quality standards and report information.

Course Schedule

The course will meet over four days for a total of 16.5 hours. Lectures are every morning, lab, fieldwork, data entry and analysis every afternoon.

Day 1 (4 hours lecture, 1 hour field/lab)
Discuss summer 2013 data collection
Review of meter and kit SOPs
Review water temperature logger operation, deployment
Introduction of stream flow and discharge measurements
Field – Review of water quality tests; deploy temperature loggers; stream flow and discharge

Day 2 (3 hours lecture, 1 hour field/lab)
Recalibration of Hanna Combo meter
Review bio-assessment using benthic macro-invertebrates
Field – conduct volunteer level bio-assessment in a near-by stream; collect temperature loggers
Lab – sort, identify, and count macro-invertebrates
Lab – data entry and analysis using Excel and on-line database

Day 3 (2.5 hours lecture, 1 hour field/lab)
Recalibration of Hanna Combo meter

Schedule subject to change to meet instructor's calendar

Course Policies
Students are expected to conduct themselves in a responsible and courteous manner. Attendance is mandatory. Late assignments are accepted only when pre-arranged with the instructor. UAF requires all students to conduct themselves according to the UAF Honor Code. Cheating, copying, and other forms of academic dishonesty may result in disciplinary action and other sanctions. It is expected that tolerance of others with different gender, race, and ethnic backgrounds be shown in class discussions and writings. The instructor reserves the right to amend this syllabus as needed.

Assignments and Quizzes

Assignments

Support and Tutoring is available to eligible students through UAF Student Support Services or Bristol Bay Campus. Contact UAF via the Internet at http://www.uaf.edu/sssp/ or BBC by calling the toll free number at 1.800.478.5109.

Library services are available at http://www.uaf.edu/library/ or call the toll free library information number at 1.800.478.5348 and ask for the off-campus librarian.

UAF has a Disability Services office that operates in conjunction with the College