

Spring 2-1-2018

BIOB 491.01: ST: Clark Fork Education Program

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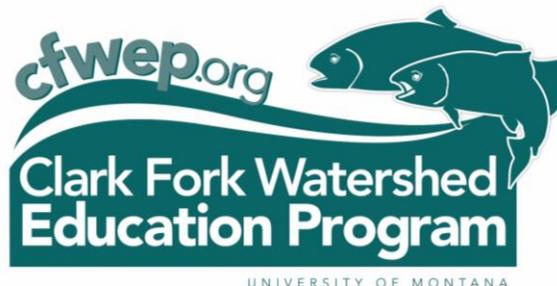
BIOB 491-01 – CLARK FORK WATERSHED EDUCATION PROGRAM

COURSE MEETING TIMES: Fridays 1:00-2:50pm, HS #108

INSTRUCTOR: Dalit Guscio. Health Sciences #112.

CONTACT INFORMATION:

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Office Hours: by appointment



COURSE DESCRIPTION:

In this course you will learn about the Clark Fork watershed in an integrative curriculum combining watershed science, history, biology, geology, chemistry and political science. You will also be introduced to best practices for teaching upper elementary classes.

Then, you will be part of a team of educators responsible for teaching this place-based science curriculum to 5th and 6th graders in nearby public schools.

TEXT: NONE REQUIRED. Reading material will be provided.

RECOMMENED: Restoring the Shining Waters – Superfund Success at Milltown, Montana by David Brooks.

GENERAL COURSE LEARNING OUTCOMES:

CFWEP is ideal for students interested in careers in education or research, conservation, management or public policy. We strongly believe that all students will benefit in learning and practicing how to communicate scientific research to broader audiences. This course is real-life experience that will help you develop those skills.

Students will:

- Develop communication skills and ability to share scientific facts to the general public.
- Practice staging and delivering complex content.
- Model & foster logical thinking in the classroom.
- Familiarize elementary students to the scientific inquiry.
- Learn & teach about basic watershed science, the functions of a healthy riparian habitat, and the factors that make for a healthy waterway in Western Montana.
- Learn & teach about the environmental impacts of unregulated mining, particularly in Butte, and the effects it has had on the Clark Fork watershed.
- Learn & teach about the Superfund and the difference between restoration and remedy.
- Learn & teach about the differences between a healthy and impaired watershed; and how to restore an impaired one.
- Learn & teach about biological indicators and help elementary students figure out relevant data to collect.
- Learn how to & lead grade school students in collecting data on water quality, riparian assessment, and macroinvertebrates.
- Learn & teach about how to make sense of collected data in order to assess watershed health.

COURSE SCHEDULE:

DATE	TOPIC
1/26	What is Science and why teach it?
2/2	Lecture 1 - Watershed Knowledge
2/9	Lecture 2 - History of our Watershed and Teaching Demos/Observations
2/16	Lecture 2 - History of our Watershed
2/23	Lecture 3 - Superfund and Clean-up and Teaching Demos/Observations
2/25	Overlook of Milltown Park; Field trip Mock-up, etc.
3/2	Lecture 4 – Is our Watershed Healthy? and Teaching Demos/Observations
3/9	Lecture 5 – Class management and Teaching Practices
3/16	IN SCHOOLS
3/23	IN SCHOOLS
3/30	Spring Break
4/6	IN SCHOOLS
4/13	IN SCHOOLS
4/15	Field trip to Butte, MT
4/20	IN SCHOOLS
4/27	Reflection of program
5/4	Written document due

ASSIGNMENTS:

- You will be asked to practice presenting lectures relating to our program in the class.
- You are to hand in a document at the end of class with comments on what worked in this class and internship, what didn't work and suggestions on how it could be done more effectively. I strongly recommend to start the document at the beginning of the semester and just keep adding to it as ideas/concerns and experiences occur.
- You are to teach on average 4 hours per week.
- You are required to help lead 5 field trips all on Fridays to the river with children from the public schools.

CLASSROOM BEHAVIOR:

You will be interacting with students and teachers in the public school system. You are an ambassador of the University of Montana, so you are expected to act responsibly and serve as a role-model. You must be reliable, responsive, and prompt to all ways of communication (email, phone, text).

DISABILITY SERVICES

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). If you think you may have a disability adversely affecting your academic performance, and you have not already registered with DSS, please contact DSS in Lommasson 154. We are happy to work with you and DSS to provide appropriate accommodations for your learning and testing.