

**Maine Huts and Trails
Trip Request 2017/18**

Colby is interested in a strong eco-tourism, environmental stewardship education and conservation partner in the western mountains of Maine that can expand educational and research opportunities for their students and faculty. Maine Huts and Trails, MH&T, seeks research projects and systems assessments that will inform action to improve efficiency of off-the-grid energy systems, the development of local economies, as well as strategies relative to conservation, education and environmental stewardship. Colby has a partnership with MH&T (<https://mainehuts.org>) to advance these goals and is able to fund a total of 100 overnight visits during the 2017/18 academic year. Please complete this trip request form if you would like to use MH&T facilities as part of a class trip. Email the completed form to Michael Donihue and Whitney King.

Name of Faculty Member **Denise Bruesewitz**
Department **Environmental Studies**
Course Name and Number **ES494 Problems in Environmental Science**

Requested Dates **9/15/2017-9/16/2017 (1 night)**
Requested Hut **Flagstaff**

Participant Numbers:

Faculty/Staff	Denise Bruesewitz, (invitations extended to Abby Pearson and Justin Becknell)
Students enrolled in the class	16 (Environmental Studies/Science majors)
Students supporting the trip	16 (anticipated)
Total Participants	18-21

Description of the Class Trip. (Please describe how this trip will provide reciprocal benefits for Colby and MH&T.)

I plan to use this overnight trip for two primary goals: to work on both field data collection techniques on the shore of Flagstaff Lake, and for each student research team to develop a core set of principles that will establish their team dynamic for the semester of collaborative research.

The course objectives for ES494 are:

1. Experience the **collaborative nature** of environmental science.
2. Examine the role of **hypothesis driven research** in ecosystem management.
3. Deliver **effective communication** of our research to stakeholders and the public, including scientific writing and oral presentations.
4. Review and learn some **techniques of quantitative environmental analysis**.
5. Perform an environmental assessment of streams ecosystems.

By starting off the semester with an overnight trip to the Flagstaff Hut, we will work towards many of these course objectives, particularly numbers 1, 3 and 4 listed above.

We will work through a number of tutorials for field methods that students will be required to use independently during the course (programming and deploying sondes and light sensors), calibration and use of dissolved oxygen probes and conductivity probes, collecting and filtering water samples, proper data management, chain of command for sample handling and processing. This focused effort will allow students to become comfortable with these methods early on in our research project.

This time away from campus as an isolated group will allow the student research teams to develop their group work plan and to have conversations about how to successfully develop a collaborative research project. I will be using some exercises I learned about in a CTL workshop in Spring 2017 regarding team building in the classroom.

Proposed Timeline:

Depart from campus by ~2PM on Friday 9/15, arrive to the trailhead by 4PM. The hike to the Flagstaff hut is approximately 1.5 miles, so we should be to the hut by 5 PM. Students will deploy programmed sensors in the shallow waters of the lake as soon as we arrive.

Group dinner

Friday evening following dinner: Group discussion about team dynamics and expectations for the course, team building exercises

Saturday morning 8:00-10:30: Demonstrations and tutorials of field techniques

Saturday 10:30-12:00: Individual team meetings to establish team expectations and commitments.

~1:00PM Saturday: Final reflections and depart

The benefits to MH&T: We will generate and share data about the water quality of the lake near the hut, and student teams will write blog posts about their experiences using the MH&T system. Additionally, this group of environmental studies students will be exposed to this unique experience at Maine Huts and Trails, and may be inspired to come back for more visits as a student and beyond.