



TRIP REQUEST FORM



In 2017 Colby College and Maine Huts & Trails (MH&T) established an academic partnership to create outdoor learning and recreation opportunities for our students, faculty, and staff. The goals of this partnership include extending the classroom from the Colby campus into the Maine woods, engaging students in experiential learning with an eco-tourism enterprise, and increasing our capacity for forest and fresh-water research activities. MH&T seeks to support academic research and systems assessments that will inform their environmental stewardship practices to improve efficiency of off-the-grid energy systems, the development of local economies, and enhance their strategies for education and environmental stewardship. Through this academic partnership we are able to fund a total of 100 overnight visits during the 2017/18 academic year. In addition, the Colby community is eligible for reduced rates on membership and use of the MH&T resources.

Colby faculty with classes that might benefit from day-long or overnight visits to one of the MH&T huts must complete this form and return an electronic copy to both Professors Whitney King (whitney.king@colby.edu) and Michael Donihue (michael.donihue@colby.edu). More information about our academic partnership with MH&T, including support resources, guidelines, and expectations for trips can be found at <http://web.colby.edu/mainehutsandtrails/>.

Trip leader:	Denise Bruesewitz
Department or Program:	Environmental Studies
Email address:	dabruese@colby.edu
Course number & title:	ES494 Problems in Environmental Science
Arrival & departure dates:	14 – 15 September 2018
Requested hut:	Flagstaff

Anticipated number of participants	Faculty/Staff	Enrolled Students	Other Students	Other*	Total
	3	26		9	38

*Identify other participants, including accompanying adults and/or minor children and who will be responsible for their supervision.

The other faculty joining will be Peter Countway (Bigelow) and Ben Neal, who lead the other section of ES494 at Bigelow. The faculty families will be joining us as well:
 Other participants will be Thomas Klepach and Roa (age 8) and Isla (age 6) Klepach. Thom will be responsible for Roa and Isla. Loren McClenechan will be responsible for Sonora (age 7) and Oshin (age 2). Becky Countway will be responsible for Garrett (12) and Gillian (10).

Purpose of trip. Explain your planned activities and goals for this trip. For class excursions, briefly identify how this trip supports the learning outcomes for your course and anticipated methods of assessment.[†]

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. Additionally, this time will allow the 2 sections of ES494 (my section and a new section run in collaboration with Bigelow Laboratory under the instruction of Pete Countway and Ben Neal) to interact and foster cross-section conversation.

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). Pete Countway will demonstrate some additional techniques (handheld PCR and plankton tows) 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. In particular, each team will develop their own team agreement that outlines expectations for each student in a research team.

Assessment will include each student submitting a reflection on the experience in the form of a blog post for the website and a team agreement document.

[†]Consider student blog posts to <http://web.colby.edu/mainehutsandtrails/> as a means of assessment.

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 pre-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.

Saturday morning 8:15-10:30: Demonstrations and tutorials of field techniques (Bruesewitz, Countway and Neal)

Saturday 10:30-11:30: Individual team meetings to establish team expectations and commitments.

11:30-1:00: Recreation time

~1:00PM Saturday: Final reflections and depart