



Icelandic Field Studies May Term 2017

Overview

- When: May 10 through June 8, 2017
- Where: On-campus preparation May 10 - May 24, fieldwork in Iceland May 24 - June 8
- Who: Anyone with an interest in computer science, geology, biology, archeology, climate change, sustainable energy, orienteering, and/or geocaching.
- Academics: 1 credit 7 week Spring course + 3 credit May Term course + 1 credit 7 week Fall course (5 total)
- Prerequisites: None, although any lab science course will help prepare you for the type of work we will do.

Description

Icelandic field studies is a multidisciplinary science based on-campus and off-campus May Term program designed for first-year, sophomore, and junior students to immerse themselves in a multifaceted exploration of the geology, biology, geography, environment, and culture of one of the most unique places on our planet. The program starts with a 1 credit 7 week course at the end of Spring semester, 2 weeks of on-campus preparation in May, 2 weeks of fieldwork in Iceland during May/June, and concludes with a 1 credit 7 week course at the beginning of the following Fall semester. The program and three courses are built out of these themes:

- Multidisciplinary field science - Small measures of biology, geology, computer science, archaeology, and environmental science. Perform experiments and measurements on glaciers, volcanoes (dormant), avian nesting sites, etc.
- Servant leadership development - a substantial amount of the leadership for the program is provided by students, working in conjunction with the faculty leaders, in the model used by Earlham's Outdoor Education program.
- Notion of place - focusing on Iceland, considering it from natural, cultural, and historical perspectives.
- Sustainability - Iceland's energy economy is almost exclusively built on sustainable sources. This provides a number of interesting opportunities for learning about large scale geothermal and related systems.
- Long-term view - Each year, participants will measure the extent of a specific part of a glacier, building a data set that, over a period of years, will document one tangible aspect of climate change.

Faculty

Charlie Peck is a Professor of Computer Science who works with scientists from a variety of disciplines. He has co-lead groups of students/faculty to Iceland in 2013, 2014, and 2016, and to Nicaragua, England and Turkey.

Gail Clark Connerley is the Senior Director of Annual Giving in the Institutional Advancement Office, and a long-time leader in Earlham's Outdoor Education program. She has led many groups of students and faculty as part of Earlham's mountain and water wilderness.

Course Objectives

The academic component is divided into three time periods and two broad disciplinary areas. During the 7 week Spring semester course we will be reading about Iceland's geology and history, and learning about the scientific experiments and measurements we will be performing in the field. During the on-campus May Term component our preparation will continue with practicing experiments, learning to fly our remote piloted aircraft, organizing and packing gear, and planning our day-to-day work. In Iceland we will travel, work, cook, and eat together. During the 7 week fall course we will consider what we've learned and the larger implications of it, plant trees to offset our carbon load for the trip, organize the data we collected and make posters for the URPC describing our work.

- Learning Goals
 - Scientific skills
 - Collecting geocoded field samples and measurements under sometimes adverse conditions
 - Analyzing and visualizing data, integrating annual sets with longitudinal sets
 - Experimental design, including long-term measurement/sensor systems
 - Learning how to use many software and hardware tools, some self-developed
 - Personal and group skills
 - Adventurous spirit
 - Sense of place
 - Servant leadership
 - The contemplative spirit
 - Simplicity
- Evaluation
 - Science artifacts - curated datasets, visualizations (static and interactive), posters for the URPC
 - Trees planted to offset carbon load
 - Self and group assessments
 - Personal journal and program blog posts
- Materials
 - Alexandra Witze and Jeff Kanipe, Island on Fire, Pegasus, 2015
 - Earlham's Outdoor Education Core Principles documents.
 - Elizabeth Kolbert, The Climate of Man (parts I,II,III), *The New Yorker*, 2005
 - John McPhee, The Control of Nature (parts I, II), *The New Yorker*, 1988

Location

After landing in Reykjavik we will spend 2 days visiting Thingvellir National Park, Hellisheidi geothermal power plant, and the rift between North America and Europe. Next is the South coast where we will spend a few days working on the Sólheimajökull glacier, visiting a couple of waterfalls and the black sand beach, and taking a ferry to the island of Heimaey, where we will climb and work on Eldfell and Helgafell, two dormant volcanoes. Returning to the mainland we will travel the along the south and east coasts to Skalanes, a nature preserve, research station, avian nesting grounds, and archeology site located at the far end of a peninsula on the East coast. There we will spend a week working on a variety of science projects with students from schools in Europe and North America. Leaving Skalanes we will travel to Akureyri (via the hot springs in Myvatn) where we can take the ferry to Grimsey, a small island north of Iceland on the Arctic Circle with large puffin colonies. Leaving Akureyri we will return to Reykjavik for a couple of days and then home.

Living Arrangements

During the on-campus portion of the program in May students will live in College housing as a group. When in Iceland we will stay in hostels in Reykjavik, Vik (south coast), and Akureyri, and in expedition tents at Skalanes. We will travel in 9 passenger vans, largely cooking for ourselves as we go.

Costs

The course fee is \$3,500. This covers on-campus room and board, in-country transportation, room, board, and fees. Students will also be charged a non-refundable enrollment fee of \$385. Students are responsible for roundtrip transportation costs to Reykjavik. Students are responsible for additional expenses such as passport (required), visas (required for certain International students), personal items, additional travel, books, gifts, etc. Additional tuition fees will be charged if applicable.

Application

Applications are due October 15 in the Center for Global Education (CGE) in LBC #131. Applications are available on-line at <https://wildmanscience.wufoo.com/forms/ipo-may-term-application/> or in paper form in (CGE). For more information contact Charlie Peck (charliep@cs.earlham.edu) or Gail Clark Connerley (gailc@earlham.edu).

Program Plans Subject to Change