

Practical information

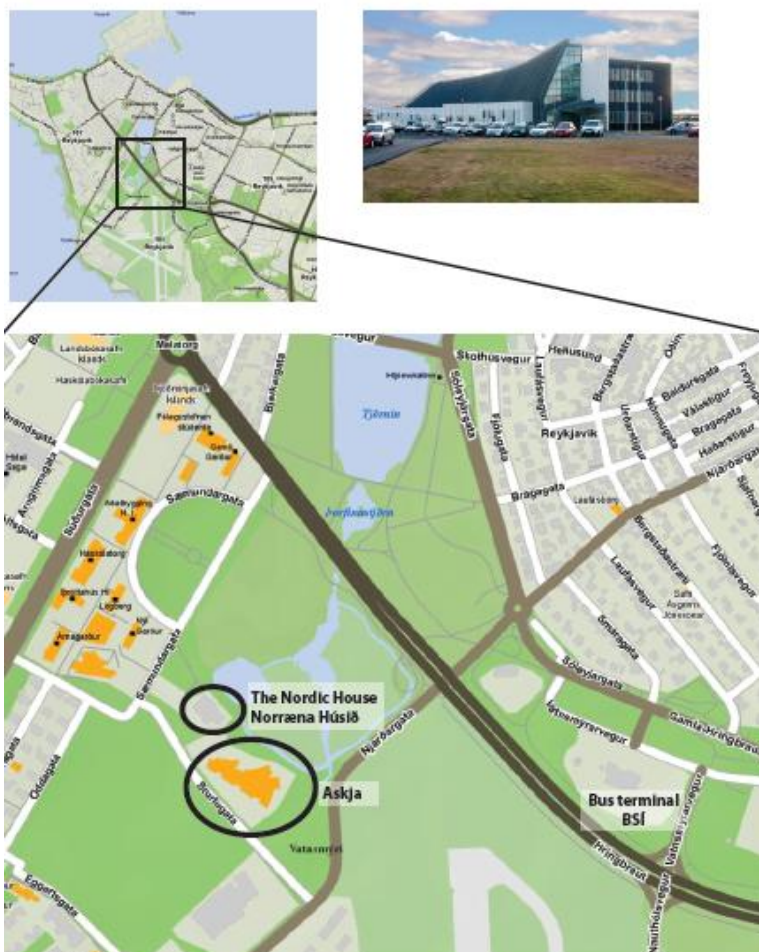
Arriving in Reykjavik

- The international airport is in Keflavik, about 45 minutes drive from Reykjavik. There are busses that go regularly between Keflavik and Reykjavik (www.re.is/Flybus/). The bus stops at the BSÍ bus terminal shown on the map below.
- We have arranged an overnight stay for the first night, the 22nd August, at Hotel Cabin Reykjavik (<http://www.hotelcabin.is>).

First evening

- The summer school starts on the 22nd August in the evening. We meet at 18.00 in Askja (University of Iceland) for a short get-together followed by a dinner at Restaurant Dill in the Nordic house (Next to Askja)
- We will introduce the program, go over the program and you will be provided with an important folder containing practical information, abstracts and a short field guide.

Askja, Sturlugata 7, 101 Reykjavik
Department of Earth Sciences and Nordic Volcanological Institute



Accommodation and food

- Accommodation has been arranged during the summer school from 22-29th August. If you arrive earlier or leave later you need to make your own arrangements.
 - 22/08 Hotel Cabin Reykjavik (<http://www.hotelcabin.is>)
 - 23-28/08 Hotel Hengill (<http://icelandairhotels.is/hotels/hengill>)
 - 29/08 Landmannalaugar (Mountain hut – bring a sleeping bag)
- Food (breakfast, lunch, dinner and coffee) is included in the course. Wine and beer is not included.
- Everyone will need to share a room with someone.

The summer school

- The program. The summer school will consist of 3 days of lectures and poster sessions and 5 days of field excursions. Each lecture will be ca 45 minutes.
- We will go on 4 field trips. These will include bus drive and some hiking as well. Some of the areas we will visit are active geothermal fields with mud pots and hot springs. So be careful where you step.
- Poster session: The posters will be up during most of the course with special poster sessions at the end of each lecture day. Each participant will be asked to introduce their work briefly during one of the poster sessions.

Don't forget

- Warm, wind- and waterproof clothes - the weather in Iceland varies a lot. We may experience sunny days but also windy and rainy (even snowy!) ones. We are also going into the highlands on some of the field excursions where the temperature may be close to 0°C in the night. So make sure you bring warm cloths and water proof jackets and trousers, as well as shoes appropriate for rocky and/or muddy terrain (sturdy hiking boots).
- Bring your swim suits – there is a hot pot at Hotell Hengill, and warm natural rivers in Reykjadalur and Landmannalaugar where we will go to during the field excursions. We will also go to the Blue Lagoon.
- Sleeping bag – you will need a sleeping bag for the last night of the course in Landmannalaugar, it is a warm mountain hut.

Program

Monday 22 August

18.00 Course opening in Askja, University of Iceland. Overview of course and field trips. Light dinner at Restaurant Dill, Nordic House.

Tuesday 23 August - Field trip W Iceland

08.15 Bus from Askja, University of Iceland

9.00 Bus from Hotel Cabin

9.00-18.00 Field trip on W-Iceland looking at eroded geothermal systems. We will take a bus from Reykjavik to Thingvellir, crossing over to Húsafell, and Hvalfjordur where we will look at fossil volcanic and geothermal systems. Return to Hotel Hengill (Nesjavellir) in the evening. Dinner at Hotel Hengill and refreshments during the day. Guide: Sigurdur Gardar Kristinsson (Iceland Geosurvey).

~19.30 Dinner at Hotel Hengill

Wednesday 24. August – course lectures and poster session at Nesjavellir

07.00-09.00 Breakfast

09.00-09.45 Geology and geothermal exploration – Ásgrímur Gudmundsson

09.45-10.30 Geothermal geochemistry and exploration – Andri Stefánsson

10.30-11.00 Coffee and posters

11.00-11.45 Geophysical methods for geothermal exploration – Knútur Árnason

11.45-12.30 Comparison of seafloor „black smokers“ hydrothermal systems to geothermal systems in Iceland – Robert Zierenberg

12.30-14.00 Lunch

14.00-14.45 Mass transfer and transport controls on mineralogical alteration in basalt-hosted geothermal systems – Phil Neuhoff

14.45-15.30 Geothermal reservoir modeling – Gunnar Gunnarsson

15.30-16.15 Geothermal biotechnology – Jakob K. Kristjánsson

16.30-19.00 Posters and coffee (group I)

19.30 Dinner at Hotel Hengill

Thursday 25. August – course lectures and poster session at Nesjavellir

07.00-09.00 Breakfast

09.00-09.45 High -temperature geothermal alteration – Anette K. Mortensen

09.45-10.30 The physical hydrology and heat transport in geothermal systems – from geysirs to Engineered Geothermal Systems – Thomas Driesner

10.30-11.00 Coffee and posters

11.00-11.45 Habitat Generation in Hydrothermal Systems – Everett Shock

11.45-12.30 Speciation and transport of metals in geological fluids and formation of hydrothermal-magmatic ore deposits – Gleb Pokrovski

12.30-14.00 Lunch

14.00-14.45 Ground Source Heat Pumps - José Acuna

14.45-15.30 The Carbfix project – Sigurdur R. Gíslason

16.00-19.00 Posters and coffee (group II)

19.30 Dinner at Hotel Hengill

Friday 26. August – Field II trip at Hengill and Hveragerdi SW Iceland

07.00-09.00 Breakfast

09.00-18.00 Field trip II looking at surface geothermal activity and geothermal power plants in the Hengill and Hveragerdi area, SW Iceland. We will look at surface geothermal fluids, alteration and geothermal biology in Ölkelduháls area as well as look at geothermal wells and energy production. Dinner at Hotel Hengill and refreshments during the

day. Guides: Einar Gunnlaugsson (Reykjavík Energy) and Gudmunur Oli Hreggvidsson (University of Iceland and Matis)

~19.30 Dinner at Hotel Hengill

Saturday 27. August – lectures and discussion groups at Nesjavellir on “Roots of geothermal systems” – in collaboration with GEORG (Geothermal Research group)

07.00-09.00 Breakfast

09.00-9.45 Geothermal systems: Deep root physics - Problem statement and state of the art – Jónas Elíasson

9.45-11.00 Conceptualizing stress and permeability fields in deep roots of geothermal systems – Grímur Björnsson & Stephen Hickman

11.00-11.20 Coffee

11.20-12.10 Enhanced Geothermal Energy Systems - ongoing case studies in middle Europe – Ernst Huenges

12.10-13.30 Lunch break

13.30-14.30 To be announced - Thomas Driesner

14.00-14.30 The Iceland Deep Drilling Project (IDDP) Drilling into Supercritical Geothermal Systems (SGS) - Guðmundur Ómar Friðleifsson

14.30-15.00 Deep Root Chemistry - Andri Stefánsson

15.00-17.00 Group Discussion and coffee

19.30- Dinner at Hotel Hengill

Sunday 28. August Field at Reykjanes

07.00-09.00 Breakfast

09.00-18.00 Field trip III looking at surface geothermal activity and saline geothermal fluids at Reykjanes Peninsula, SW Iceland. The trip will end in the Blue Lagoon. Dinner at Hotel Hengill and refreshments during the day. Guides: Anette K. Mortensen (Iceland Geosurvey) and Guðmundur Ómar Friðleifsson (HS Orka)

~19.30- Dinner at Hotel Hengill

Monday 29 August Field trip to Southern Lowlands and Landmannalaugar

07.00-09.00 Breakfast

09.00-18.00 Field trip IV. We will drive from Nesjavellir to the Southern Lowlands; look at low-temperature geothermal activity as well as some historical places. In the afternoon we will drive into the South Highlands to Landmannalaugar, where we will do some short hikes, have dinner and stay in the mountain-hut there overnight. Landmannalaugar are a part of the Torfajokull caldera, characterised by rhyolitic rocks and geothermal activity. At Landmannalaugar there is a natural geothermal bath. Guides: Andri Stefánsson and Júlía K. Björke

~19.00 Dinner in Landmannalaugar

Tuesday 30 August Field trip Landmannalaugar

07.00-09.00 Breakfast

09.00-18.00 We plan to leave Landmannalaugar before lunch, drive mountain roads east and south of Myrdalsjokull and Eyjafjallajokull on the south coast and return to Reykjavík in the evening.