

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) - Guðmudur 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
ca 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.