

Intensive Field Course in Iceland

# Practical training in the use of geospatial technologies in hazard research and response

- Understand thoroughly the centrality of geospatial information for hazard research and response
- Acquire practical experience in using diverse geospatial technologies for data collection
- Become cognizant of ethical questions that may arise when geospatial technologies are used
- Gain experience in cross-cultural teamwork and awareness of the related UN Sustainable Development Goals







This Aurora-supported intensive graduate-level field course is offered by of the Department of Geography and Tourism Studies of the University of Iceland, in collaboration with colleagues from the UI Science Institute and Palacký University Olomouc, Czech Republic.

Graduate students from the Aurora alliance are encouraged to apply, especially those with a background in human or physical geography, geology, environmental sciences or environmental engineering. Applicants are expected to have some basic knowledge of geographic information systems.

## **Description of the course**

The course provides students a first-hand experience with **state-of-the-art geospatial technologies** that are becoming important for both basic research and practical response planning in locations exposed to natural hazards. The focus is on two methodological innovations, understanding physical processes that contribute to landslide hazards and enabling meaningful participation of local publics in hazard research and response.

The students will learn about the use of deployment of **Unmanned Aerial Vehicles** for obtaining high-resolution digital elevation data, combining such data with resistivity measurement data for 3D mapping. They will also experiment with the use of **Public Participation Geographic Information Systems** for researching hazard perception and engaging local communities in hazard assessment and response planning. In addition, students will **elaborate their own views** of geospatial technology use in the context of natural hazards.

The course is based on **active student involvement**. It centres on a fieldtrip that takes participants from Reykjavík to Seyðisfjörður, an East Iceland community that is exposed to avalanches and landslides. Introductory readings, and field visits en route, provide students with geographical and topical context.

They will then stay in the community for three days, with **intensive hands-on data collection and analysis** guided by the instructors. Following this, the students work together in **cross-national teams** to reflect on the potential and limitations of these technologies, as well as possible **ethical questions** relating to their use. The results will be published online, in open access.







#### Workload

- Preparation (reading): 12 hours
- Lectures: 3 hours
- Fieldwork: 44 hours
- Discussion with instructors: 3 hours
- Assignment: 22 hours

Participants will receive a Transcript of Records from the University of Iceland for **3 ECTS credits.** 

#### **Costs for participants**

All participants will have to pay a EUR 200 participation fee, which covers the bus transport, accommodation and food during the field trip, arranged for the participants. Students from Aurora universities, other than UI, are eligible for an Aurora or Erasmus+mobility grant from their home university for travel and subsistence costs.

### **Application process**

You can apply by filling is an online application form found here: <a href="wrld.at/geotechfieldcourse">wrld.at/geotechfieldcourse</a>
Please include a CV, a Transcript of Records (certifying your current studies) and a cover letter explaining your motivation (max. 700 words). The deadline is **May 7th**, and you will be notified of the result by May 14th.



