# **MSc Geophysical Hazards**

Natural disasters affect one in thirty people across the world each year. All nations are at risk and the field of natural hazards is one of the fastest growing areas of research in the Earth and Climate Sciences. Our MSc in Geophysical Hazards shows how understanding natural hazards leads to practical measures for reducing their impact. It provides an essential grounding for all fields of hazard study, from pure research to applications in the commercial and humanitarian sectors.

### Your career

On graduation from this programme, about one-third of students have followed careers in global insurance and reinsurance, and another third have pursued research with a PhD in hazard-related studies. The remaining third have developed careers in a wide range of sectors, from non-governmental organisations through teaching, to the fields of emergency planning and environmental management.

### **Employability**

The MSc in Geophysical Hazards will provide essential training for careers in hazard assessment and risk evaluation, including: industry, from engineering to insurance; academic research; civil protection agencies and government organisations; and NGOs related to aid and development.

### **About the UCL Hazard Centre**

This programme is delivered by the UCL Hazard Centre. Established in 1997, the UCL Hazard Centre delivers the latest research and knowledge on natural hazards to industry, humanitarian and development organisations, government and civil protection agencies. It specialises in:

- Fundamental research on the geophysical processes that drive natural hazards.
- · Practical strategies for forecasting natural hazards and their impact.
- Communicating hazard information to decision makers and vulnerable communities.



Want to know more? Please browse our website at:

www.ucl.ac.uk/hazard-centre

UCL Hazard Centre, Department of Earth Sciences, UCL, Gower Street, London, WC1E 6BT, UK



Cover photo: Eruption at Piton de la Fournaise volcano, La Réunion (image courtesy of unisci24)

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## **Degree summary**

Our MSc programme provides a broad introduction to geophysical hazards, together with advanced courses in seismology, volcanology, hydrogeological hazards and meteorology. It offers a unique focus on quantitative models for hazard forecasting and assessment, and demonstrates how knowledge of the controlling processes is essential for improving decision making during emergencies, for raising awareness among vulnerable communities and for evaluating and implementing mitigation strategies.

The programme is delivered through a combination of lectures, directed reading, and practical problem-solving exercises, followed by an independent research project. Student performance is assessed through seen and unseen examinations, and coursework in the form of essays, reports and practical exercises. The independent project is assessed through a 12,000-word dissertation. Excellent opportunities are available for both desktop and field investigations during the independent research.

## **Degree structure**

Mode: Full time: 1 year; Part-time: 2 years Location: London (Bloomsbury campus)

Students undertake modules to the value of 180 credits, consisting of six core modules and an independent research project.

#### **FOUNDATION MODULES**

- Geological and Geotechnical Hazards
- Meteorological Hazards
- · Research Methods

#### **ADVANCED MODULES**

- Earthquake Seismology and Earthquake Hazards
- Physical Volcanology and Volcanic Hazards
- Meteorological, Climate and Hydrogeological Hazards

**FIELD TRIP:** Conditions permitting, mandatory field work is included to illustrate the impact of natural hazards. Previous trips have visited the Neapolitan volcanic district, the Italian Alps and Po Delta, and Southwest Spain.

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## **Entry requirements**

Normally a minimum of a second-class Bachelor's degree in a relevant discipline from a UK university or an overseas qualification of an equivalent standard. Applicants whose qualifications are of a lower standard may be admitted if evidence of an adequate academic background and appropriate field experience can be shown.

## **English language proficiency level**

If your education has not been conducted in the English language, you will be expected to demonstrate evidence of an adequate level of English proficiency. The level of English proficiency for this programme is: **Standard**. More information can be found at: www.ucl.ac.uk/graduate/english-requirements

## Your application

Students are advised to apply as early as possible due to competition for places. Those applying for scholarship funding (particularly overseas applicants) should take note of application deadlines. When we assess your application, we would like to learn:

- What attracts you to studying Geophysical Hazards at graduate level.
- · Why you want to study at UCL.
- · How your academic and professional background meets the demands of this course.
- Where you would like to go professionally with your degree; for example, are you
  interested in pursuing a career in research, or in applying your knowledge to the
  commercial or humanitarian sectors?

Remember, your personal statement is *your opportunity* to illustrate whether your reasons for applying to this programme match what the programme will deliver.





For further course information, please visit:

www.ucl.ac.uk/earth-sciences/study-here/postgraduate/geophysical-hazards or alternatively, you can contact Prof. Christopher Kilburn at: c.kilburn@ucl.ac.uk

Details of how to apply can be found at: www.ucl.ac.uk/prospective-students/graduate/apply

Details of current fees can be found at: www.ucl.ac.uk/students/fees-and-funding

Details of UCL scholarships can be found at: www.ucl.ac.uk/scholarships