Durham University
Department of Geography

Inspiring the extraordinary

MSc Environmental Hazards and Risk

Join us on this dedicated MSc to explore the impact of natural events and analyse the risk they pose to environments and societies around the world.

Introduction

Our MSc in Environmental Hazards and Risk explores the causes and devastating impacts of natural events including drought, heatwaves, landslides and climate change and the threat they pose to environments and populations around the world.

Taking a natural sciences approach, you will develop an in-depth knowledge of these global environmental hazards, and consider the extent of their physical and social impact on society, the consequences for social vulnerability and for resilience. The course is likely to appeal to those with a background in natural sciences or engineering.

You will also complete either a research-based dissertation by carrying out original independent study on a subject of particular interest or a vocational dissertation that combines external work placements with independent research.

Our partnership with the renowned Institute of Hazard, Risk and Resilience at the University, will enable you to learn about the current thinking around risk from academics and professionals in the sector as well as participate in the Institute's annual climate risk seminar series.

Course Timetable

Term 1 October to December	**Term 2** January to March	**Term 3** April to June	**Summer** June to August
Understanding Risk (30 credits)	Risk Frontiers (15 credits)	Knowledge for Action and Leadership (15 credits)	Dissertation or Vocational Dissertation (60 credits)
Environmental Data Science (30 credits)	Climate and Environmental Change Past and Present (15 credits)	Dissertation or Vocational Dissertation (60 credits)	
	Anticipating Future Environments (15 credits)		
	Dissertation or Vocational Dissertation (60 credits)		

List of Modules

You will take the following modules which, together, add up to 180 credits:

Understanding Risk (30 credits) (Term 1)
Provides an overview of the key theories and concepts that reflect the interdisciplinary nature of risk involving human action and environmental events. You will learn the basic concepts and terms used to describe and communicate risk, as well as studying interventions involved in managing, preventing or mitigating against risk to populations, and building an understanding of the determinants of risk and its social inequalities.

Environmental Data Science (30 credits) (Term 1)
analysis skills such as programming, modelling and GIS, using datasets that allow advanced insight to a range of environmental processes as well as experience in a range of data sources.

Climate Change and Society (15 credits) (Term 1)
Provides an advanced understanding of human influence-based climate change as an issue that poses new risks to society, and will help you to develop tools for responding to these emerging natural and socio-political threats. You learn to think critically about how evolving understandings of risk, resilience and vulnerability shape efforts to mitigate and adapt to climate change.

Risk Frontiers (15 credits) (Term 2)
Is delivered in collaboration with the Institute of Hazard, Risk and Resilience. This module looks at current risk research and provides training in the generic skills of interpreting, criticising and collating the emerging research. What you learn will help meet the demands of the risk industry and associated areas such as disaster reduction, security, development and humanitarian relief.

Climate and Environmental Change Past and Present (15 credits) (Term 2)
Understanding how environmental processes responded under previous climates is key for predicting how they might respond in future. This module will assess how different paleo-environmental records are produced and analysed, and how they can be interpreted to make future predictions that enhance sustainability. It involves fieldwork, as well as lectures and seminars.

Anticipating Future Environments (15 credits) (Term 2)
This module will consider how we can predict the future behaviour of a range of different environmental systems under conditions of uncertainty, synthesising the state of the art and critically analysing current knowledge to enhance sustainability.

Knowledge for Action and Leadership (15 credits) (Term 3)
This module develops practical skills of leadership, engagement and dissemination relevant to creating sustainable futures.

Dissertation or Vocational dissertation (60 credits) (Terms 2, 3 and summer)
The dissertation allows students to design and execute an extended piece of research on a particular problem, challenge, or issue at the intersection of climate change and risk. The vocational dissertation option is based on working with a non-academic partner.

Contact
For more information please visit:
https://tinyurl.com/4fwys4xr

Find out about our Open Days and Virtual Tours visit:
www.dur.ac.uk/visit-us/

For general enquiries visit:
www.dur.ac.uk/about-us/how-to-contact-us/

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