



Risk, Disaster and Resilience MSc

2020/21 entry

www.ucl.ac.uk/rdr/

RDR

UCL Institute for Risk
and Disaster Reduction



*Amatrice, following 2016 Earthquake, Italy
Photograph from EEFIT mission*

The disaster risk management industry needs professionalising. Academic study can underpin this professionalisation, enabling you to apply evidence and research based theory to this sector. Through a multidisciplinary approach to risk and disaster reduction, you will learn to become a future leader driving policy change and innovation in order to preserve lives and sustain economies which could otherwise be destroyed or damaged by disaster. You will gain expertise in analysing complex challenges and providing sustainable solutions.

UCL is one of the world's leading universities, regularly featuring in the top 10 in global rankings.

The Institute for Risk and Disaster Reduction (IRDR), leads multidisciplinary research, knowledge exchange and advanced teaching across UCL. As a student, you will be encouraged to join our active seminar series, high-profile public discussion meetings and the networking events we host.

London is one of the world's great cosmopolitan cities. It is an international hub for global finance and risk management, NGOs, and engineering consultancies. The IRDR nurtures networks across London, and beyond.

"London itself is an unparalleled breeding ground of ideas for anyone interested in research" (MSc student 2015/16)

Programme themes

Physical and Social Science of Natural and Anthropogenic Hazards

What is known and unknown

Current research and uncertainties

Building Resilience

What are the barriers to risk and disasters reduction and how do we overcome them?

Develop a common language to communicate complex concepts in an accessible way

Understanding Vulnerability

From fragility curves describing damage to buildings to social vulnerability of individuals and society

Quantifying Risk

What is risk and how do we measure it?

Components of risk: exposure, hazard, vulnerability

Multidisciplinary Holistic Approaches

Integrating scientific knowledge into disaster risk reduction research, policy and practice

Communicating with stakeholders

Managing Disasters

How to apply plans to manage real emergencies



Scenario exercise with a partner organisation

Careers

Whether you wish to start a new career in risk and disaster reduction or you already have experience we are here to support you. With an MSc in Risk, Disaster and Resilience you will have excellent academic credibility coupled with practical and analytical skills.

We run an annual *Careers and Opportunities Forum* which offers expert and targeted advice, and hosts stalls from a range of employers and headhunters in the field of risk and disaster reduction. Our alumni are highly sought-after in the following sectors: insurance, catastrophe modelling, risk management, public policy, humanitarian development, NGOs, business continuity, government, emergency services, consultancy, and academia.

Teaching and learning

Learn from world-class researchers and professionals delivering the programme through a combination of lectures, class discussions, problem-solving exercises, practicals, field trips, directed reading, student-led dialogue, and a practitioner-led real-time disaster scenario event.

Assessment is by individual and group presentations, coursework, written examinations, and a research project.



Thames Barrier Field Trip

Some career destinations of recent IRDR graduates:

Disaster Risk Management Consultant, World Bank
Project Officer, Global Risk Forum Davos
Coastal Risk Management Officer, Environment Agency
Project Officer, Cairo Local Government
Field Delegate, Red Cross
Global Engagement Fellow, Interpeace
Resilience Technical Officer, International Medical Corps
Project Officer, Rescue Global
Emergency Information Management Specialist, Plan Nepal
Business Continuity & Resilience Consultant, PwC
Business Continuity Consultant, Arup
Analyst, RMS (Risk Management Solutions)
Reinsurance Claims Management Executive
AXA Global Re, Paris

Programme structure

Mode of study: Full time: 1 year Part time: 2 years

Flexible: up to 5 years

Students take eight taught modules and an independent research project.

A Postgraduate Diploma comprising eight taught modules can be taken full-time, or part-time over two years.

For further information see www.ucl.ac.uk/rdr/



Degree Programme Modules

Two compulsory core taught modules (15 credits each)

1 Integrating Science into Risk and Disaster Reduction

Quantitative risk assessment Risk transfer & communication

2 Emergency and Crisis Management

Command procedures Warning and evacuation

Two compulsory programme-specific core modules (15 credits each)

1 Natural and Anthropogenic Hazards and Vulnerability

Scientific causes Social & economic vulnerability

2 Emergency and Crisis Planning

Methodology and techniques Policy and legal contexts

Two compulsory taught skills modules (15 credits each)

1 Data Analysis and Interpretation

Statistical methods R & GIS

2 Practice and Appraisal of Research

Qualitative research methods Project design & management

Two optional modules from among the following (15 credits each)

Non-IRDR optional modules are marked with an asterisk ()*

1 Catastrophe Risk Modelling

Probabilistic modelling Hazard & physical vulnerability

2 Digital Health: Epidemics and Emergencies

Early warning & response Surveillance systems

3 Gender, Disaster and Conflict

Gender responsiveness Structural vulnerabilities

4 Business Continuity Management and Organisational Resilience

Managing operations Supply chain disruptions

5 Conflict, Humanitarianism & Disaster Risk Reduction

Humanitarian response Conflict and crises resolution

6 The Variable Sun: Space Weather and You

Satellite vulnerability Risks to critical infrastructure

7 Risk Analysis for Disaster Science

Earthquake science Statistical geophysics

8 Disaster Risk Reduction in Cities *

Urban resilience Development processes

9 Post Disaster Recovery *

Policies and practices Implementing projects

10 Adapting Cities to Climate Change in the Global South *

Low income countries Adapting to climate change

11 Decision and Risk (Statistics) *

Statistical treatment of risk Bayesian decision making

12 Perspectives on Terrorism *

Conceptual issues Current groups and tactics

13 Risk and Contingency Planning *

Analyse security threats Systems vulnerability

14 Risk, Power and Uncertainty *

Anthropology of risk Risk socio-cultural implications

All optional modules are subject to availability and particular modules may not be possible in any given year.

Independent project (60 credits)

The independent research project culminates in a 10,000 to 12,000 word dissertation and poster presentation. Projects may be field, theory or modelling based and can be conducted in collaboration with external industry or NGO partners.

Field trips and exercises

Current field visits include: the Thames Barrier and disaster management; Cambridge flood hazard; a disaster scenario exercise with NGO Rescue Global; the Blacknest Seismological Observatory; the Met Office; Southwest England for integrated group projects covering hazard mapping, vulnerability assessment, and critical infrastructure assessment, with Hinkley Point nuclear power station as an example.

IRDR Programmes:

Risk, Disaster and Resilience MSc

Risk and Disaster Science MSc

Risk and Disaster Science MSc Management Pathway

Space Risks and Disaster Reduction MSc

Risk and Disaster Reduction MRes

Risk and Disaster Reduction PhD

Admissions Contact

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UCL Institute for Risk and Disaster Reduction

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MSc Risk, Disaster and Resilience

Key information

Programme starts

September 2020

Modes and duration

Full time: 1 year Part time: 2 years Flexible time: 5 years

Tuition fees (2020/2021)

UK/EU: £11,830 (FT) £5,975 (PT)

Overseas: £24,980 (FT) £12,470 (PT)

Scholarships

UCL offers a selection of scholarships for supporting postgraduate studies. Details of funding opportunities can be found at: www.ucl.ac.uk/scholarships. Further advice and programme-specific scholarships information can be obtained from the Masters Programmes section of the IRDR website.

Application dates

Open: November 2019 Close: 31 July 2020

Note on fees: The tuition fees shown are for the year indicated above. Fees for subsequent years may increase or otherwise vary. Further information can be viewed on the UCL Current Students website.

Optional qualifications: This degree is also available as a PG Diploma with fees set accordingly.

Entry requirements

Normally a minimum of an upper second-class UK Bachelor's degree or an overseas qualification of an equivalent standard. This multidisciplinary programme accepts students from a wide range of subject areas, such as social sciences, physical sciences, and humanities.

Mathematics requirements

None, but there are some quantitative methods in the course

English language requirements

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 English language level for this programme is: **Good**

International students

Country-specific information, including details of when UCL representatives are visiting your part of the world, can be obtained from the UCL International Students website.



Credit: Nevalenx