Risk, Disaster and Resilience MSc
2021/22 entry
www.ucl.ac.uk/risk-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.

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

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.

Why study at UCL IRDR?

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)

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 within a wide range of employers and headhunters in the field of risk and disaster reduction. Our alumni are highly sought-after.

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
## Degree Programme Modules

<table>
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<tr>
<th>Two compulsory core taught modules (15 credits each)</th>
<th>Two compulsory programme-specific core modules (15 credits each)</th>
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<tr>
<td><strong>1 Integrating Science into Risk &amp; Disaster Reduction</strong></td>
<td><strong>2 Emergency and Crisis Planning &amp; Management</strong></td>
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<tr>
<td>Quantitative risk assessment</td>
<td>Risk transfer &amp; communication</td>
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<td>Command procedures</td>
<td>Warning and evacuation</td>
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<tr>
<td><strong>1 Natural &amp; Anthropogenic Hazards &amp; Vulnerability</strong></td>
<td><strong>2 Advanced Emergency &amp; Crisis Planning &amp; Management</strong></td>
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<td>Scientific causes</td>
<td>Social &amp; economic vulnerability</td>
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<td>Methodology and techniques</td>
<td>Policy and legal contexts</td>
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<th>Two compulsory taught skills modules (15 credits each)</th>
<th>Non-IRDR optional modules are marked with an asterisk (*)</th>
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<tr>
<td><strong>1 Data Analysis and Interpretation</strong></td>
<td><strong>2 Practice and Appraisal of Research</strong></td>
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<tr>
<td>Statistical methods</td>
<td>R &amp; GIS</td>
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<td>Qualitative research methods</td>
<td>Project design &amp; management</td>
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<td><strong>1 Catastrophe Risk Modelling</strong></td>
<td><strong>2 Digital Health: Epidemics and Emergencies</strong></td>
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<td>Probabilistic modelling</td>
<td>Hazard &amp; physical vulnerability</td>
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<td>Early warning &amp; response</td>
<td>Surveillance systems</td>
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<td><strong>3 Gender, Disaster and Conflict</strong></td>
<td><strong>4 Business Continuity Management and Organisational Resilience</strong></td>
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<td>Gender responsiveness</td>
<td>Structural vulnerabilities</td>
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<td>Managing disruptions</td>
<td>Operational continuity</td>
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<td><strong>5 Conflict, Humanitarianism &amp; Disaster Risk Reduction</strong></td>
<td><strong>6 Space Weather and Technological Failures</strong></td>
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<td>Humanitarian response</td>
<td>Conflict and crises resolution</td>
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<td>Satellite vulnerability</td>
<td>Risks to critical infrastructure</td>
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<td><strong>7 Risk Analysis for Disaster Science</strong></td>
<td><strong>8 Perspectives on Terrorism</strong></td>
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<td>Earthquake science</td>
<td>Statistical geophysics</td>
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<td>Conceptual issues</td>
<td>Current groups and tactics</td>
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<td><strong>9 Post Disaster Recovery</strong></td>
<td><strong>10 Risk, Power and Uncertainty</strong></td>
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<tr>
<td>Policies and practices</td>
<td>Implementing projects</td>
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<tr>
<td>Anthropology of risk</td>
<td>Risk socio-cultural implications</td>
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**Risk, Disaster and Resilience MSc Management Pathway**

See Pathway brochure for School of Management modules

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 a partner organisation; 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.
**MSc Risk, Disaster and Resilience**

**Key information**

**Programme starts**
September 2021

**Modes and duration**
Full time: 1 year     Part time: 2 years     Flexible time: 5 years

**Tuition fees (2021/2022)**
UK/EU: £12,500 (FT) £6,250 (PT)  
Overseas: £23,300 (FT) £11,650 (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](http://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 2020     Close: 31 May 2021

**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.