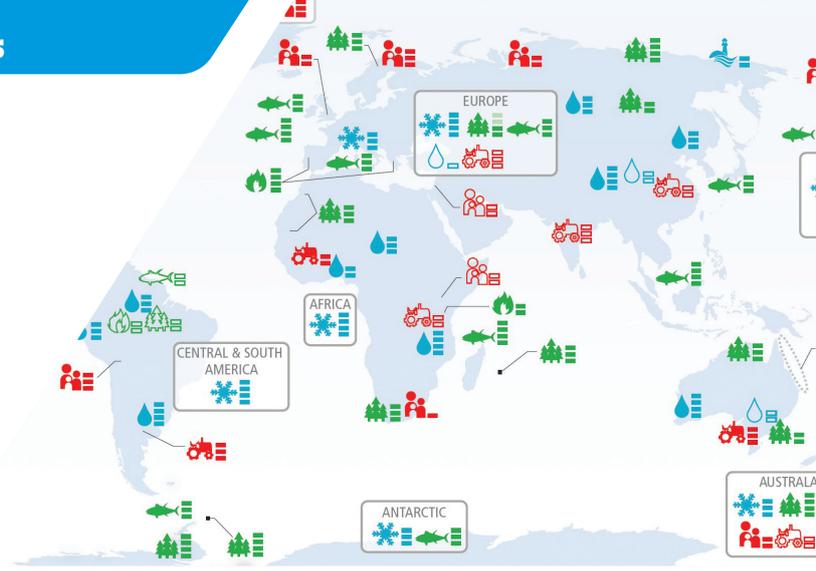




University College Dublin
Ireland's Global University



MSc Climate Change: Science and Impacts (12 Months Full Time)

The climate of the planet has changed tremendously over the last few decades, leading to excessive flooding, forest fires and rising global temperatures and having various impacts on our planet and society. It is crucial to study the causes of climate change and understand the impacts in different sectors in order to prepare us for any natural hazards or extreme changes that can be predicted and incorporate climate change into future sustainable development. This MSc programme has two strands:

- 1) Climate science and simulation
- 2) Climate change and impacts

On completion of the programme students should be able to critically understand climate change science and impacts, and creatively apply the knowledge in solving real-world problems. It suits students with a degree in Science, Engineering, Economics or other environment related disciplines with strong interest in climate change science and impacts. Students will have the choice to either conduct a research project working with leading experts from multidisciplinary background or to work as a summer intern in various agencies or companies. In addition to data analysis and computational skills, students will have opportunities to develop their presentation and communication skills.

Key Fact

UCD Earth Institute is Ireland's largest research institute dedicated to earth and environmental sciences. The curriculum for this MSc is continually updated and the coursework is practically oriented and benefits from cutting-edge expertise and multidisciplinary research profiles.

Why study at UCD?



Tradition

Established 1854, with 160 years of teaching & research excellence



Global profile

UCD is ranked in the top 1% of higher education institutions worldwide



Global community

Over 6,000 international students from over 120 countries study at UCD



Global careers

Degrees with high employability; dedicated careers support; 1 year stay-back visa



Safety

Modern parkland campus with 24 hour security, minutes from Dublin city centre

Course Content and Structure

90 credits
taught masters

60 credits
taught modules

30 credits
research project Or summer internship

This campus-based full time programme has been specifically designed for graduate students from various undergraduate disciplines without requiring previous climate change knowledge. The core modules will enable students to critically understand climate science and develop skills in climate data analysis and climate model simulations. Optional modules of the strand in climate science and simulation will advance students' ability in climate model simulation and application in real world problems. Optional modules in the strand of climate change and impacts will reinforce students creative thinking of climate impacts in different sectors.

Core modules include:

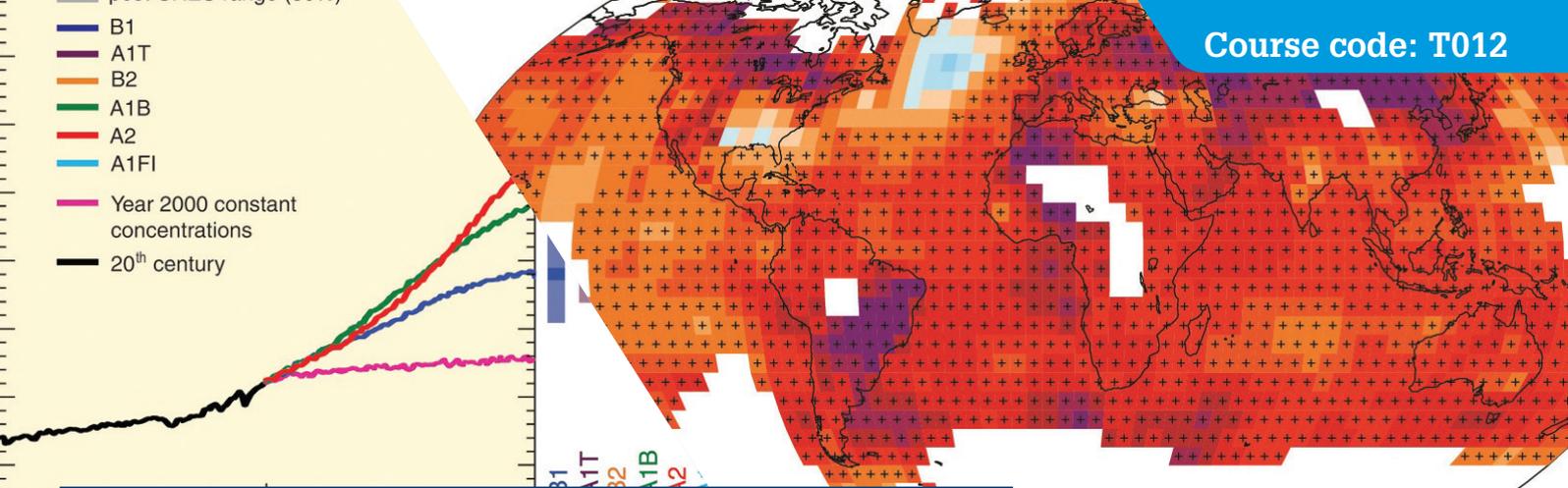
- Weather and climate
- Climate model and scenarios theory
- Climate model and scenarios applications
- Case studies of climate change and impacts
- Transferable skills

Optional modules include:

- Numerical simulation and theory
- Practical Statistics
- Paleo-climate
- Environmental Impact Assessment
- Climate, Carbon, and Soil
- Energy System and Climate Change
- Energy Market and Climate Change
- Global Business
- Biofuel & Bioenergy resources

Modules and topics shown are subject to change and are not guaranteed by UCD.

Modules can be substituted for other modules if agreed with the programme director.



Career Opportunities

The multidisciplinary nature of this programme enables our graduates to work across different disciplines and backgrounds to suit global market demands. Graduates could pursue various careers, such as in governmental or international organizations, NGOs, insurance or consulting companies, with their strong skills in climate data analysis and broad knowledge of climate impacts. The experience of engaging with cutting-edge research in the UCD Earth Institute places students in a strong position for further studies at PhD level.



Fees and Scholarships

Tuition fee information is available on www.ucd.ie/fees. Please note that UCD offer a number of postgraduate scholarships for fulltime, self-funding international students, holding an offer of a place on master's programmes. Please see www.ucd.ie/international/scholarships for further information.

Accommodation

UCD has accommodation for over 2,500 students across five locations. Places are limited and more information is available at www.ucd.ie/residences/. For information and advice on living off campus, please contact the UCD Residences Off-Campus Office or the UCD Student Union Accommodation Services. Please visit www.ucd.ie/residences/accommodationbooking-support/ for further details.

Related Masters Programmes of Interest

- MSc Applied Environmental Science
- MSc Environmental Sustainability (Online)
- MSc Global Change: Ecosystem Science & Policy
- MSc Food Industry and strategies

Apply Now

This programme receives significant interest so please apply early online at www.ucd.ie/apply

Entry Requirements

- This programme is intended for applicants with a degree in Science, Engineering, Economics or other Environment related disciplines. An upper second class honours or international equivalent is required.
- A strong interest in climate science and impacts is required.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.

Staff Profiles

Dr Xuefeng Cui, Senior Lecturer,
UCD Earth Institute,
School of Mathematical Sciences.



Trained as a climate modeller, Dr. Cui works on a large range of topics in climate change and impacts with focus on land use change, food security and geoengineering.

He has served as Lead Authors for the latest IPCC AR5 during 2010-2014 and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) since 2014.

Dr Conor Sweeney, Lecturer,
UCD Earth Institute,
School of Mathematical Sciences.



Climate Science is a brilliant area to be working in, full of interesting questions to research. One research project I'm working on at the moment studies data from observations and climate models to predict how extremes in temperature and rainfall may

change in the future. Another research project looks at how warming may change large atmospheric scales, which could have an impact on wind energy. There are always new challenges, and the demand for improved climate knowledge is increasing all the time!

EU Enquiries Ms Kate O'Hanlon ✉: kate.ohanlon@ucd.ie ☎: +353 1 716 2452

www.ucd.ie/graduatestudies

UCD School of Mathematical Sciences, University College Dublin, Belfield, Dublin 4.

Non-EU Enquiries ✉: internationaladmissions@ucd.ie

www.ucd.ie/international