Ulster University

COLERAINE CAMPUS

MAKE A DIFFERENCE

BSc Geography
BSc Environmental Science
BSc Marine Science

SCHOOL OF GEOGRAPHY AND ENVIRONMENTAL SCIENCES
UNDERGRADUATE COURSES 2021-2022

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01. At a glance

CONTENTS

92%

OF OUR GRADUATES ARE IN EMPLOYMENT OR FURTHER STUDY WITHIN 6 MONTHS OF GRADUATING (DLHE, 2018)

WE ARE RANKED

3rd in UK

FOR STUDENT SATISFACTION OUT OF 70 UNIVERSITIES FOR GEOGRAPHY & ENVIRONMENTAL SCIENCE (Complete University Guide, 2021)

81%

OF OUR STUDENTS GRADUATE WITH A 1ST OR 2.1

WE ACHIEVED

100%

OVERALL STUDENT SATISFACTION 7 CONSECUTIVE YEARS (National Student Survey 2014-2020)

100%

OF OUR STUDENTS DEVELOP HIGHLY SOUGHT AFTER EMPLOYABLE SKILLS IN GIS AND REMOTE SENSING

WE ARE RANKED

20th in UK

OUT OF 70 UNIVERSITIES FOR GEOGRAPHY & ENVIRONMENTAL STUDIES (The Guardian, 2020)

INTERNATIONAL OUTLOOK

WE HAVE A RESEARCH PRESENCE IN 5 CONTINENTS, 31 COUNTRIES, 3 WORLD OCEANS AND 2 PLANETS

100%

OF OUR STUDENTS ARE OFFERED ONE YEAR STUDY ABROAD OR INDUSTRIAL PLACEMENT OPTIONS

02. Global challenges

Population

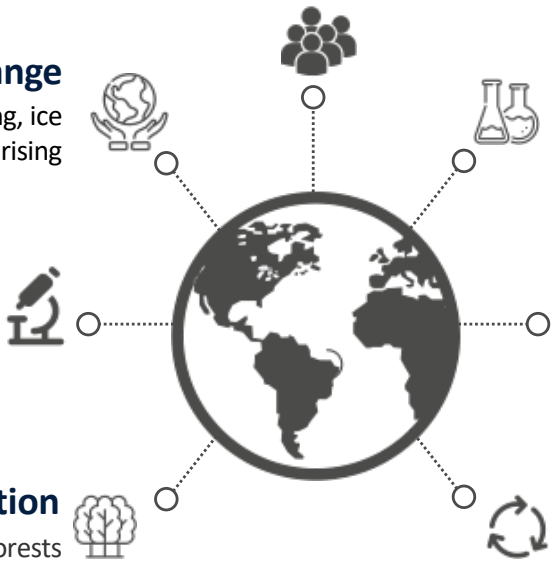
7 billion people on Earth. 9.7 billion by 2050, and 11.2 billion by 2100

Climate change

Global temperatures are rising, ice caps are melting, and sea levels are rising

Water

An estimated 780 million people have no access to clean water



Biodiversity

has declined 27% in the last three decades

Pollution

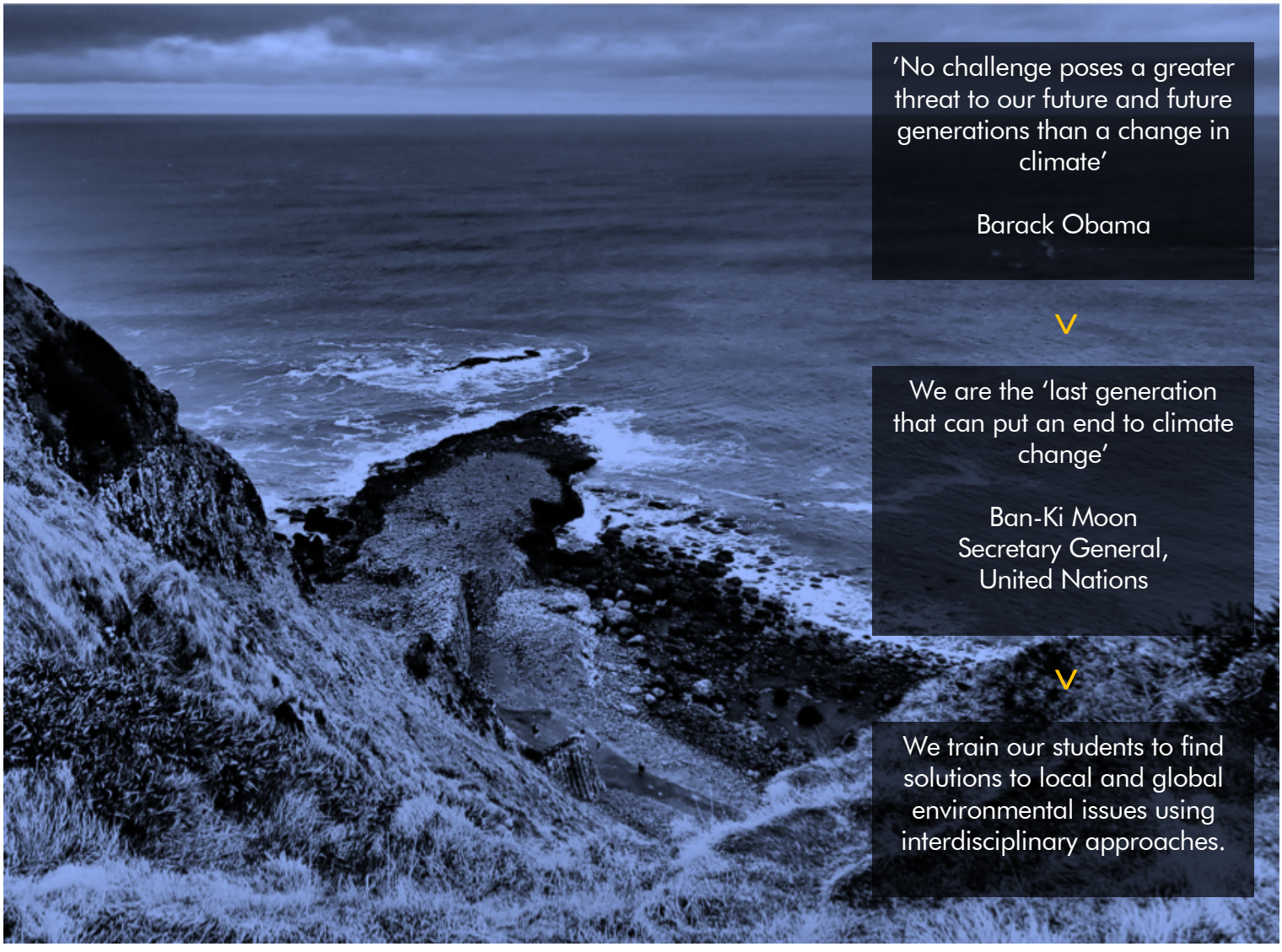
takes more than 100 million lives every single year

Deforestation

By 2030, 90% of rainforests will have disappeared

Soil loss

Half of the topsoil on the planet has been lost in the last 150 years



'No challenge poses a greater threat to our future and future generations than a change in climate'

Barack Obama

We are the 'last generation that can put an end to climate change'

Ban-Ki Moon
Secretary General,
United Nations

We train our students to find solutions to local and global environmental issues using interdisciplinary approaches.

03. Fieldwork and field courses

Fieldwork is central to our courses. It is widely recognised as being key to developing employable skills.

We are located on the spectacular **Causeway Coast**, minutes away from natural laboratories including the open sea, estuaries, rivers, lakes, woodlands and uplands.

Fieldwork will form an integral part of your degree. You will go on a variety of residential field courses at home and overseas: Algarve, Cyprus and Barcelona.

04. Employable skills *active learning*

Groupwork

You will learn to plan, implement, analyse and report safely and ethically

GIS and Remote Sensing

You will develop highly sought-after skills in geographical information systems and remote sensing

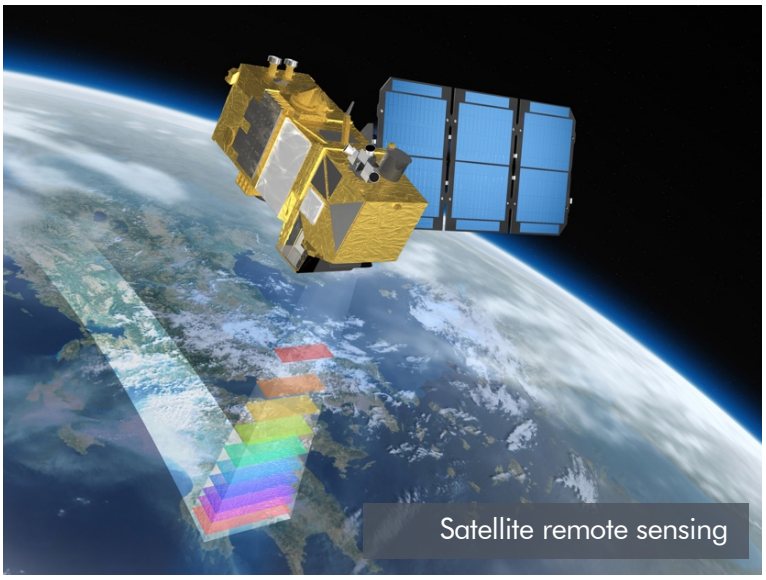
Lab skills

You will develop laboratory and IT skills through spending time in labs, designing and conducting experiments, and analysing data

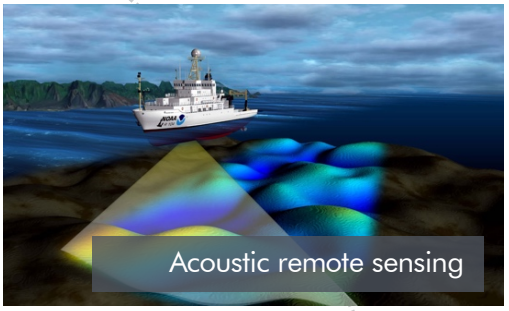
Presentation

You will develop communication skills associated with a range of media and targeted at a range of audiences

You will apply **Qualitative & Quantitative** techniques and understand the appropriate context for their use



Satellite remote sensing



Acoustic remote sensing

Fisheries stock assessment

Testing drinking water quality

05. Geography overview

Royal Geographical Society with IBG

Accredited Programme

Geography is the study of the Earth as the home of people. It concerns the disposition and interaction of people, resources and natural events, and places emphasis on cultural and social perspectives. It also explores the nature, scale and processes affecting physical features on the surface of the Earth, and the human element in global events.

Our Geography degree provides a multi-disciplinary foundation in these areas and provides access to a wide range of careers. At Ulster, you have access to a range of human and physical geography modules, so you can tailor your degree according to your preference.

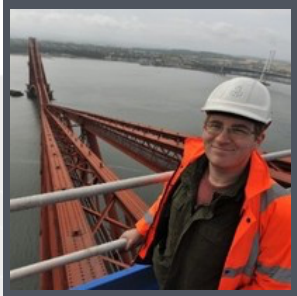
A degree in geography from Ulster University opens many new doors in terms of your career choices. Geographers specialise in understanding and trying to improve society's problems. In the degree programme at Ulster you will develop a range of quantitative and qualitative research skills, and address a range of human and physical geography issues; such as climate change, coastal erosion, conflict, development, and poverty.

Our graduates are employed across a wide range of fields. Many have forged careers in environmental agencies, GIS, education, consultancy, town and country planning, and public administration.

A 2010 poll of over 200,000 graduates from UK universities found that those with geography degrees had the lowest rate of unemployment six months after graduation of any discipline polled (Higher Education Career Services Unit).

'The geography degree at Ulster instilled in me an understanding of many different systems and processes, from GIS to geology, and an understanding of how a place can be shaped by culture and the people using it. It changed the way I think.'

Matthew Strahan
BSc Geography
3D Laser Scanning Specialist



BSc Geography

Choose Ulster

- Interdisciplinary approach with learning divided between physical and human geography
- Conduct your own independent research project in final year
- 100% overall satisfaction in the National Student Survey
- Fieldwork opportunities at home and overseas

Course overview

Geography is an integrated study of the Earth's places, societies, environments and landscapes.

If you are interested in learning about the world in which we live and about pressing issues that affect us such as climate change, environmental hazards, conflict and social inequality, and sustainable development, then a geography degree is for you.

The discipline of geography is unique because it is the only university degree that bridges the social sciences and humanities (human geography) with the natural sciences (physical geography) in a coherent way.

It remains one of the most popular degrees to study at university and students enjoy the programme because of the insights they gain about the world around them.

100%
of geography students are satisfied with their course (NSS, 2019)

100%
of geography students agreed staff are good at explaining things (NSS, 2019)

Key Information

Royal Geographical Society with IBG Accredited Programme

UCAS Codes:
BSc: F800
with Industrial Placement: F800
with Study Abroad: F800
with Psychology: F8CV
with Education: F8XH

Start date: September

Duration: 3 years for BSc + 1 year for optional placement or study abroad

Entry requirements: BCC at A-level. No specific subjects are required, although geography is preferred.

Study abroad options

You will have the opportunity to study for a year at a university abroad. Options include a range of European countries, North America and partner universities in Australia and French Polynesia. On successful completion you will be awarded an additional diploma (DIAS).

Industrial placements

The industrial placement scheme gives you the opportunity to work for 10 months within an organization developing skills and applying knowledge. On successful completion you will be awarded an additional diploma (DPP).

Find out more

For more details about your course such as module information and course structure, visit www.ulster.ac.uk/ges

05. Geography graduates – where are they now?

Our geography students find fulfilling and successful careers as geospatial analysts, geography teachers, surveyors, business analysts, engineers, policy makers and more.

Jobs our recent geography graduates are in:

Teacher
GIS Consultant
Mapping Officer LPS
Aerial Surveyor
Data Technician
University Lecturer
GIS Analyst – Engineering Industry
Planner
Renewables Industry
Hydraulic Modeller
Heritage Scientist
GIS Engineer – Transport Industry
GIS Analyst – Waste Management
GIS Officer – Public Sector
Geospatial Analyst
Flood Hazard Research
International Development Officer
Social Development Advisor
Catastrophe Risk Analyst
Air Pollution Specialist
Crime and Disorder Advisor
Hydrologist
Data Analyst
Telemetry Officer
Chartered Surveyor
Land Surveyor
Transport Consultant
Conservation Projects Coordinator
Head of Operations
Fundraising Officer
Business Officer
Cartographer
Conservation Officer
Recycling Officer
Landscape Architect
Nature Conservation Officer
Transport Planner
Market Researcher
Climate Change Analyst
Geomorphologist
Location Analyst
Meteorologist
Remote Sensing Analyst
Youth Worker

Paul Fearon
Geospatial Specialist, NZ Government
GIS solutions, water resources, surveying, energy solutions

Scotty McFarland
Geography Teacher
Education, empowering young people, All things geography

Matthew Strahan
3D Laser Scanning Specialist
Laser scanning, built heritage, 3D models, AutoCAD, industrial heritage

Patricia Doran
InterTrade Ireland
Outreach, logistics, promoting cross-border trade and development

Hannah Orr
Mapping and Charting Officer, OSNI
GIS, data analysis, planning, business development, land folio searches

Khadum Hasson
Financial Crime Analyst, PwC
Financial crime analysis, business analysis, GIS, geospatial data

Ryan Johnston
GIS Data Engineer
GIS analysis, transport industry, SMEs, multinationals, stakeholder engagement

Martine Cameron
GI Specialist, Department for Communities
GIS, administration and management of spatial database infrastructure

06. Environmental Science overview

Taking care of our planet for future generations is one of our most important responsibilities.

By studying Environmental Science at Ulster you will gain the knowledge and skills to address issues such as climate change, conserving animal and plant diversity, environmental impacts of development and the management of water and air pollution. If you enjoy science or geography and have an interest in environmental issues, this course is for you.

Multidisciplinary scientific approaches mean our degree in environmental science has diverse ranges of practical applications; from assessing drinking water quality, studying processes that cause coastal erosion, investigating agricultural pollution sources, mapping shrinking glaciers and ice sheets from space, to managing freshwater fisheries for long-term sustainability in order to feed a growing world.

At this time of unprecedented environmental change on planet Earth, society is having to adapt to processes and hazards that are poorly understood. Now, more than ever, society needs STEM graduates with an inter-disciplinary understanding of the complexity and uncertainty of Earth systems, and with the skills to observe, measure, model and manage these systems. Our environmental science degree at Ulster spans biology, chemistry, geology and physics of the terrestrial, atmospheric and freshwater systems.

'During my degree I completed a year long placement with NIEA and this experience, together with the skills that were taught as part of the Environmental Science programme, have proved to be very valuable in preparing me for the various roles I have had within the Department of Environment and NIEA.'

Colin Armstrong
BSc Environmental Science
Principal Scientific Officer
DAERA

BSc Environmental Science

Choose Ulster

- Interdisciplinary approach with learning divided between terrestrial, freshwater and marine environments
- Conduct your own independent research project in final year
- 100% overall satisfaction in the National Student Survey
- Fieldwork opportunities at home and overseas

Course overview

In Year 1 you begin with a residential field school and then study modules related to sustainability, environmental processes, environmental systems and a range of data analysis skills.

In Year 2 you will study GIS, remote sensing, environmental impact assessment and planning, the atmosphere, freshwater systems, ecology and biogeography and attend a residential overseas field school.

In final year you will undertake modules on research skills and an independent research project. GIS and remote sensing is continued as a transferrable skill and other modules focus on environmental change and management.

The freshwater theme is further developed in a module relating to water resource management, including lab-based toxicity testing and field visits to the water quality industry. Investigation of pollutants such as pesticides and radioisotopes is further explored.

100%
of environmental students are in work or further study 6 months after graduating (NSS, 2019)

100%
of environmental students agreed staff are good at explaining things (NSS, 2019)

Key Information

UCAS Codes:
BSc: F900
with Industrial Placement: F900
with Study Abroad: F900
with Psychology: F8C8
with Education: F8X3

Start date: September

Duration: 3 years for BSc + 1 year for optional placement or study abroad

Entry requirements: BCC at A-level. No specific subjects are required, although a science subject is preferred.

Study abroad options

You will have the opportunity to study for a year at a university abroad. Options include a range of European countries, North America and partner universities in Australia and French Polynesia. On successful completion you will be awarded an additional diploma (DIAS).

Industrial placements

The industrial placement scheme gives you the opportunity to work for 10 months within an organization developing skills and applying knowledge. On successful completion you will be awarded an additional diploma (DPP).

Find out more

For more details about your course such as module information and course structure, visit www.ulster.ac.uk/ges

06. Environmental graduates – where are they now?

Our environmental science students find fulfilling and successful careers as geospatial analysts, geography teachers, surveyors, business analysts, engineers, policy makers and more.

Jobs our recent environmental graduates are in:

Teacher
GIS Consultant
Mining Engineer
Exploration Geologist
Scientific Officer NIEA
Mapping Officer LPS
Strategic Analyst
Aerial Surveyor
Hydrographic Surveyor
Urban Development Officer
Geospatial Analyst MOD
Clean Neighbourhood Officer
Environmental Officer
Data Technician
University Lecturer
Environmental Consultant
R&D Scientist
Lab Analyst
Environmental Analyst
Geo-Environmental Engineer
Soil Sampling Technician
Entomologist
Oil Spill Remediation
Fisheries Development Officer
Environmental Monitoring
Laboratory Technician
Forester
Environmental Engineer
Quality Control Analyst
Campaign Officer
Geologist
Waste Water Inspector
Freshwater Scientist
Environmental Impact Assessor
Biology Teacher
Science Teacher
Water Sampler
Planner
Soil Scientist
Hydrologist
Hydrogeologist
Meteorologist
Oceanographer
Soil Scientist
Offshore Geophysicist

Colin Armstrong
Freshwater Scientist, DAERA
Marine protected areas, invasive species, marine historic environment

Gail McAleese
Offshore Geophysicist, GDG
Wind farm assessments, oil industry surveys, data cable surveys

Dellwyn Kane
Ecologist, Kane Ecology Ltd.
Protected species, bats, badgers, otters, newts, protected habitats

Lynda Byrne
Mapping and Charting Officer, OSNI
Spatial data, orthophotography, land registry, farmland boundaries

Edward Lockhart
GIS Analyst, ABPmer
Marine renewables, coastal processes, metadata production, bathymetry surveys

Rosie McMenamin
Town and Country Planner, DCSDC
Environmental impact assessments, habitat regulation assessments

Pete Rodgers
Hydrogeologist, ERM
Contaminated soil and groundwater, environmental consultancy

Thomas Smyth
Research Scientist
Mathematical modelling, fluid flow, sediment dynamics

06. Marine Science overview

Are you passionate about the health of our oceans and life in our seas? A degree in marine science is the integrated study of the biological, physical and chemical aspects of our coasts and oceans. It covers aspects of marine biology and ecology, through marine geology, maritime archaeology and ocean engineering, to the oceans as an economic resource and as a global climate regulator.

Oceans provide many opportunities for sustainable communities through renewable energy schemes, carbon sequestration and sustainable fishing. The Blue Economy (activities related to the ocean) is growing each year, and in 2018 was worth €566 billion while generating an estimated 3.5 million jobs across Europe.

The human population, estimated at 7.6 billion in 2018, is expected to increase to 11 billion by 2100. With the majority of the world's largest cities located in coastal zones, more than 75% of people are expected to live within 100 km of the coast by 2025. At a time of unprecedented environmental change on Earth, society is having to adapt to processes and hazards that are poorly understood. Now, more than ever, society needs STEM graduates with an interdisciplinary understanding of the complexity and uncertainty of the marine and atmospheric systems, and with the skills and competencies to observe, measure, model and manage these systems.

We achieve this in our marine science degree through the integration of theoretical, practical and field-based approaches. Our Coleraine campus is ideally located on the Causeway Coast, one of the world's most spectacular natural laboratories.

Our graduates find employment all over the world in the public and private sectors, in areas as diverse as physical, chemical and biological oceanography, coastal and ocean engineering, hydrographic surveying, fisheries science, marine mammal science, meteorology, marine geology, scientific diving, coastal zone planning and marine conservation.

'I graduated from Ulster in 2012 after spending my placement year as a project coordinator at the Atlantic Whale Foundation, based in Tenerife. During this placement, I was given some amazing opportunities including regular boat trips to carry out surveys on the resident and migratory cetacean populations as well as underwater video recording of Pilot Whales, a truly unforgettable experience!'

Becky McCready
BSc Marine Science
Coastal Scientist
Canterbury Council

'I chose to study marine science at Ulster to combine my interests from A-level chemistry and geography, and because of the many fieldtrips and boatwork opportunities.'

Connor McCarron
BSc Marine Science
Coastal Engineer
HR Wallingford

BSc Marine Science

Choose Ulster

- Interdisciplinary and applied approach to learning
- Physical, chemical and biological ocean and coastal systems explored
- Conduct your own independent research project in final year
- 100% overall satisfaction in the National Student Survey
- Fieldwork and placement opportunities at home and overseas

Course overview

In Year 1 you begin University life with a residential field school and then study modules related to sustainability, environmental processes, marine systems, the hydrosphere, the biosphere and the lithosphere, all the time developing a range of data analysis skills.

In Year 2 you will study GIS, marine remote sensing, marine ecology, environmental impact assessment, the atmosphere, coastal and marine systems, and attend a residential overseas field school.

In final year you will undertake modules on research skills and an independent research project with an academic supervisor, exploring a marine theme.

GIS and remote sensing is continued as a transferrable skill, with coursework exploring marine geology, marine renewables and underwater archaeology. Other modules focus on environmental change and management.

You will study applied physical, chemical and biological oceanography in the field and explore the modelling of marine species and habitats.

Key Information

UCAS Codes:
BSc: F719
Optional Year Industrial Placement
Optional Year Study Abroad:

Start date: September

Duration: 3 years for BSc + 1 year for optional placement or study abroad

Entry requirements: BCC at A-level.

No specific subjects are required, although a science subject is preferred.

Study abroad options

You will have the opportunity to study for a year at a university abroad. Options include a range of European countries, North America and partner universities in Australia and French Polynesia. On successful completion you will be awarded an additional diploma (DIAS).

Industrial placements

The industrial placement scheme gives you the opportunity to work for 10 months within an organization developing skills and applying knowledge. On successful completion you will be awarded an additional diploma (DPP).

Find out more

For more details about your course such as module information and course structure, visit www.ulster.ac.uk/ges

07. Marine graduates – where are they now?

Our marine students find fulfilling and successful careers as geospatial analysts, hydrographic surveyors, coastal engineers, fisheries scientists, marine mammal scientists, policy makers and more.

Jobs our recent marine graduates are in:

Offshore Geophysicist
Aquaculture Industry
Coastal Engineer
Ocean Engineer
Marine Mammal Scientist
GIS Consultant
Scientific Officer
Mapping Officer
Hydrographic Surveyor
University Lecturer
Environmental Consultant
Fisheries Scientist
Fisheries Officer
Laboratory Technician
Science Teacher
Meteorologist
Marine Ecologist
Marine Biologist
Fishery Data Manager
Statistician
Mathematical Modeller
Physical Oceanographer
Biological Oceanographer
Chemical Oceanographer
Marine Geologist
Marine Archaeologist
Marine Conservationist
Marine Biotechnologist
Marine Bioacoustician
Mapping and Charting Officer
Lab Technician
Commercial Diver
Scientific Diver
Outreach Officer
Environmental Analyst
Aquarium Curator
Marine Guide
Coastal Zone Planner
Marine Information Specialist
Resource Manager
Science Writer
Shellfish Biologist
Coastal Geomorphologist
Marine Lawyer

Charles Ford
Sustainable Aquaculture Industry
Sustainable aquaculture, fisheries, seafood, fish farm, global seafood supply

Rebecca McCready
Coastal Processes Scientist, Centerbury Council
Flood and coastal erosion risk management, stakeholder engagement.

Craig Dyer
Senior Hydrographic Surveyor, Fugro Ltd.
Civil Hydrography Programme, UKHO, MCA offshore sonar surveys

Aaron Kirkpatrick
Marine Mammal Scientist, Baylor University
Marine mammals, adaptation, climate Change, physiological adaptations

Sarah Bond
Analyst, ARUP
Marine mammal science, integrated solutions to ocean data collection

Niall McGinty
Fisheries Scientist, University of Iceland
Species distribution modelling, commercially important fish, marine ecology

Connor McCarron
Coastal Engineer, HR Wallingford
Marine geophysics, sedimentology, numerical modelling, oceanography

Fionnuala Kerr
Environmental Engineer, ABCO Marine
Marine engineering, renewable energy, subsea cables

08. Degree content *modules of study*

Year 1: The Fundamentals*	Geography	Environmental Science	Marine Science
Skills Toolbox	C	C	C
Key Concepts in Geography	C		
Environmental Systems	C	C	
Marine Systems			C
Society and Environment	C	C	C
The Hydrosphere		C	C
The Biosphere	C	C	C
The Lithosphere	C	C	C

Year 2: Processes and Skills*	Geography	Environmental Science	Marine Science
Marine Ecological Processes & Systems			C
The Atmosphere	C	C	C
GIS and Remote Sensing	C	C	C
Sustainable Planning	C	C	C
Freshwater Systems	O	C	
Coastal & Marine Processes	O		C
Ecology and Biogeography	O	C	
Development, Environment & Society	C		
Marine Science Field School			C
Environmental Science Field School		C	
Geography Field School	C		

Year 3: Optional Placement	Geography	Environmental Science	Marine Science
Industrial Placement (DPP)	O	O	O
Study Abroad (DIAS)	O	O	O

Final Year: Applying Knowledge*	Geography	Environmental Science	Marine Science
Modelling Marine Species & Habitats			C
Environmental Change	O	C	C
Advanced GIS and Remote Sensing	O	C	C
Geographies of Transnationalism	O		
Research & Professional Skills	C	C	C
Dissertation	C	C	C
Water Resource Management	O	C	
Environmental Management	O	C	
Conflict Geographies	C		
Applied Oceanography			C

Course structure

We ensure that you will develop skills and knowledge that will be essential to your career. Each year you will take six modules; increasing the amount of geography, environmental or marine science in each year.

We employ a wide range of teaching methods from lectures, seminars and tutorials to practicals and fieldwork.

Contact hours

Typically 15 hours per week

Independent learning

Typically 25 hours per week

Assessment

Typically 15% by exam and 85% by continual assessment

Degree classification

30% contribution from second year and 70% from final year modules

* Module names and content may vary

C = compulsory
O = optional

FIND OUT MORE

Come to one of our Open Days. Visit us at our Coleraine Campus.

SCHOOL OF GEOGRAPHY AND ENVIRONMENTAL SCIENCES

For further information please visit

www.ulsteruniges.com

@UlsterUniGES

+44(0)28 70 124428

Royal Geographical Society with IBG Accredited Programme

The geography programme has been accredited by the Royal Geographical Society (with IBG). Accredited degree programmes contain a solid academic foundation in geographical knowledge and skills, and prepare graduates to address the needs of the world beyond higher education.

CHES ACCREDITED ies

Our degrees are accredited by the Institution of Environmental Sciences (IES) for the purpose of eligibility to apply for associate membership.

Athena SWAN Bronze Award

The Athena SWAN Charter recognises and celebrates good employment practice for women working in Science, Technology, Engineering, Mathematics and Medicine (STEMM) in higher education and research.