



COLERAINE CAMPUS

# MAKE A DIFFERENCE

BSc Geography  
BSc Environmental Science  
BSc Marine Science

SCHOOL OF GEOGRAPHY AND ENVIRONMENTAL SCIENCES  
UNDERGRADUATE COURSES 2020-2021

@UlsterUniGES | [www.ulster.ac.uk/ges](http://www.ulster.ac.uk/ges) | +44(0)28 70124428





01. At a glance

**CONTENTS**

- 01 At a glance
- 02 Global challenges
- 03 Field trips
- 04 Employable skills
- 05 Geography overview
- 06 Environmental Science overview
- 07 Marine Science overview
- 08 Degree content: modules of study

**92%**



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



WE ARE RANKED

**12<sup>th</sup> in UK**

OUT OF 66 UNIVERSITIES FOR GEOGRAPHY & ENVIRONMENTAL STUDIES (The Guardian, 2019)



WE ACHIEVED

**100%**

OVERALL STUDENT SATISFACTION 6 CONSECUTIVE YEARS (National Student Survey 2014-2019)



**81%**

OF OUR STUDENTS GRADUATE WITH A 1<sup>ST</sup> OR 2.1



**100%**

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



**100%**

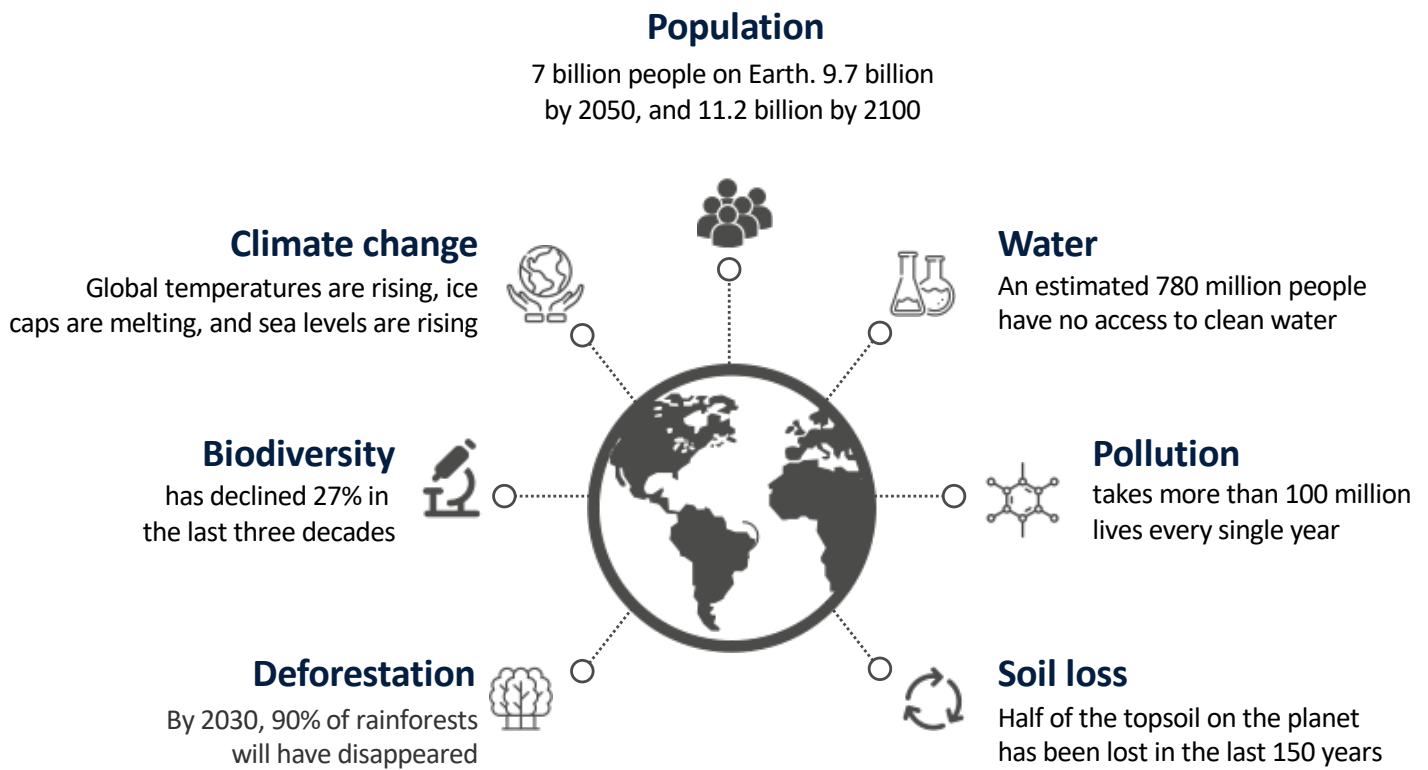
OF OUR STUDENTS DEVELOP HIGHLY SOUGHT AFTER EMPLOYABLE SKILLS IN GIS AND REMOTE SENSING



**INTERNATIONAL OUTLOOK**

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

## 02. Global challenges



'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

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

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

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

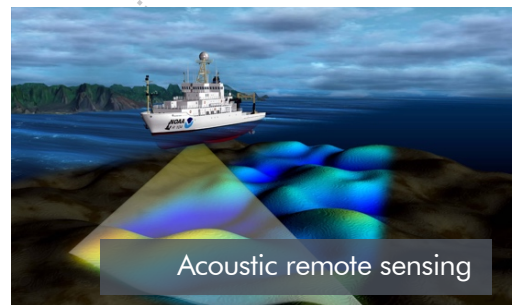
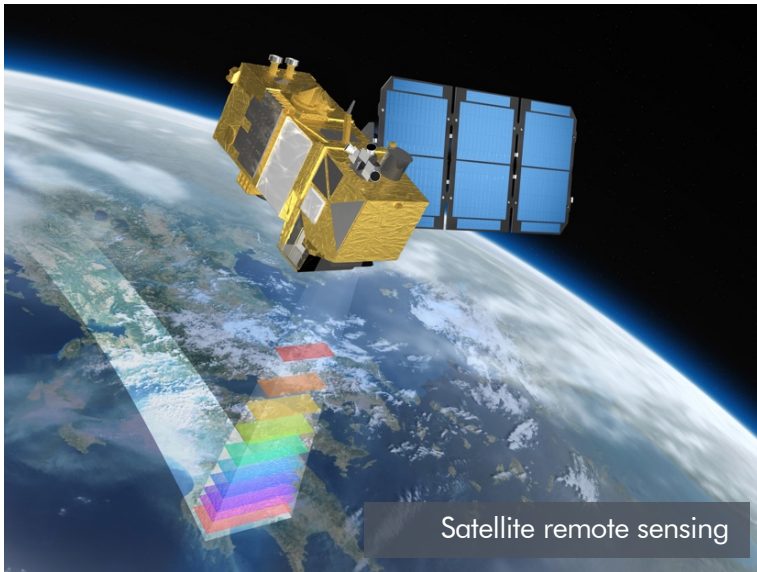
## Lab skills

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



# 05. Geography overview



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

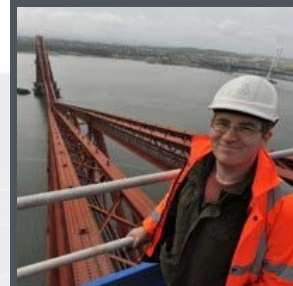
improve society's problems. In the degree programme at Ulster you will develop a range of quantitative and qualitative research skills, and address a range of human and physical geography issues; such as climate change, coastal erosion, conflict, development, and poverty.

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

### UCAS Codes:

BSc: F800  
with Industrial Placement: F801  
with Study Abroad: F801  
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](http://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 interdisciplinary 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: F901  
with Study Abroad: F901  
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](http://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 McMenamain**  
*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

with Industrial Placement:

with Study Abroad:

**Start date:** September 2021

**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](http://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
Environmental Planning		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.ulster.ac.uk/ges](http://www.ulster.ac.uk/ges)

 @UlsterUniGES

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



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.