

Environmental Science BSc

College of Science,
Engineering and Food
Science



University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Introduction

Environmental Science is the study of physical, chemical and biological processes of the Earth and of human interactions with these processes. It uses a multi-disciplinary perspective to consider approaches to protecting, preserving and managing the environment.

Why Study

Environmental Science has become more important in recent years because of the need to protect the natural and human environment for present and future generations.

Environmental issues such as climate change, the conservation of biodiversity, management of waste and natural resources, production of energy, and protection of human health, are now high on the agenda of all governments. This has resulted in more stringent regulations and standards and a need for increased understanding of the impact of human interaction on the environment. Environmental scientists who take a multi-disciplinary approach to dealing with current and future environmental issues are in demand.

Work Placement

A work experience module is available to Year 4 students, enabling them to spend 6-10 weeks during the summer vacation in a structured working environment where they are evaluated both on their contribution to the placement institution and on a report of their experience.

Study Abroad

The School of Biological, Earth and Environmental Sciences operates an exchange system, mainly with North American and European universities, that allows students to substitute one semester or a full year abroad in Year 3.

Careers

Graduates of Environmental Science are eligible for any job that requires an honours degree in a science subject, but are particularly suitable for posts in:

- environmental consultancies
- environment and waste divisions of local authorities
- the Environmental Protection Agency
- environment divisions of chemical, pharmaceutical, food and other industries
- non-Governmental organisations
- government departments concerned with natural resources, heritage, environment and land use.

Further Study

The multi-disciplinary nature of the Environmental Science degree enables graduates to pursue a wide range of specialised postgraduate programmes, including:

- environmental engineering
- water resources management
- environmental analytical chemistry
- environmental sustainability
- biodiversity and conservation management
- ecological assessments.

CK404

DEGREE OUTLET

COURSE PAGE ONLINE

www.ucc.ie/en/ck404/environmental

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CONNOR DENNEHY

GRADUATE, 2010

"I can say with some confidence that there are few degrees out there that can provide such an in-depth level of knowledge on such a wide array of subjects. I provide water technology market intelligence to our client base, which comprises large multinationals, venture capital and private equity firms, and start-up water technology firms."

#uccmakeyourmark



KEY FACTS

- A broad multi-disciplinary perspective of the environment, with an option to specialise in one discipline if you wish
- Hands-on experience in the field and laboratory, including visits to industrial and other relevant sites, and lectures and workshops from environmental practitioners and potential employers
- High success rate for employment after graduation
- Opportunities for studying abroad or carrying out work placement

Year 1 Modules

BL1002 Cells, Biomolecules, Genetics & Evolution (5 credits); **BL1004** Physiology and Structure of Plants and Animals (5 credits); **BL1005** Habitats and Ecosystems (5 credits); **CM1003** Introductory Chemistry for Environmental Scientists (10 credits); **ER1006** Applied Earth Systems (5 credits); **EV1002** The Environment (5 credits); **GL1001** Introduction to Geology (5 credits); **GL1004** Geological Evolution of Ireland (5 credits); **GG1010** Introduction to Physical Geography (5 credits); **MA1001** Calculus for Science Part 1 (5 credits); **PY1009** Physics for the Environmental Sciences I (5 credits)

Year 2 Modules

Practical Ecological Skills; Fundamentals of Ecology; Mathematical Modelling for Biological and Environmental Scientists; Introductory Organic Chemistry for Environmental Sciences; Practical Environmental Science; The Environment and Human Health; Quaternary Environments and Geomorphology; Introduction to Geoinformatics; Introductory Sedimentology for Non-Geologists; Physics for the Environmental Sciences; Introduction to Biostatistics; Invertebrate Diversity

Year 3 Modules

CORE: Conservation Biology; Environmental Chemistry and Analysis; Environmental Science in the Field; Environmental Science Literature Review; Ecology and Hydrology of Wetland Systems; Sustainable Use of Freshwater; Environmental Remote Sensing; Sedimentary Environments; Environmental Physics; Biostatistics

ELECTIVES: Introduction to Ecotoxicology; Practical Invertebrate Skills; Analytical Chemistry; The Atmospheric Environment; Coastal and Marine Geomorphology; Advanced Geographical Information Systems; Geohazards and Research Skills; Valuing the Environment; Plants & Hostile Environments

Year 4 Modules

CORE: Environmental Science Research Project; Environmental Monitoring and Assessment; Environmental Impact Assessments; Environmental Risk Assessment and Auditing

ELECTIVES: Advanced Ecotoxicology; Landscape Conservation and Management; Biology and Management of Alien Species; Architecture and Planning; Advanced Analytical Chemistry; Atmospheric Chemistry and Air Pollution; Practical Offshore Marine Science; Environmental Work Placement; Climate Variability and Change; Market Forces and the Environment; Food Production; Environmentally Protective Management of Plant Pests and Pathogens; Crop Physiology and Climate Change; Biostatistics

