

BSc Sustainability: Environmental Science and Engineering

CAO Code: DN240

Sample pathway for a degree in Sustainability *

YEAR 1 ENGAGE WITH THE PRINCIPLES

FIRST YEAR – COMMON TO BOTH PATHWAYS

- SUSTAINABILITY**
Modules include:
- ▶ Introduction to Sustainability
 - ▶ Business in Society
 - ▶ Sustainability Challenges

- ENVIRONMENTAL SCIENCE & ENGINEERING**
Modules include:
- ▶ Scientific Enquiry
 - ▶ Statistical Modelling
 - ▶ Basis of Organic and Biological Chemistry
 - ▶ Calculus

- SOCIAL SCIENCES**
Modules include:
- ▶ Sociology of Human Rights
 - ▶ Mapping a Sustainable World
 - ▶ Global Development
 - ▶ Introduction to Economics



YEAR 2 CHOOSE YOUR SUBJECTS

ENVIRONMENTAL SCIENCE AND ENGINEERING PATHWAY

- ENVIRONMENTAL SCIENCE AND ENGINEERING**
Modules include:
- ▶ Statistical Modelling
 - ▶ Chemistry for Biology
 - ▶ Land Use and the Environment
 - ▶ Energy Climate Change and Policy
 - ▶ Principles of Environmental Biology and Ecology

- ▶ Global Environmental Change
- ▶ Weather, Climate and Climate Change
- ▶ Research Tools for Sustainability
- ▶ Innovation, Communication and Careers in Sustainability

- SOCIAL SCIENCES, POLICY AND LAW**
Modules include:
- ▶ Achieving the Sustainable Development Goals
 - ▶ Introduction to GIS for Sustainability

YEAR 3 REFINE YOUR KNOWLEDGE

ENVIRONMENTAL SCIENCE AND ENGINEERING PATHWAY

- ENVIRONMENTAL SCIENCE AND ENGINEERING**
Modules include:
- ▶ Working with Biological Data
 - ▶ Waste Management
 - ▶ Environmental & Sustainable Chemistry
 - ▶ Energy Climate Change and Policy
 - ▶ Principles of Environmental Biology and Ecology
 - ▶ Wildlife Conservation and Fisheries Management

- ▶ Forest Climate and Carbon
- ▶ Geoscience for Sustainability
- ▶ Professional Work placement
- ▶ Field trip

- SOCIAL SCIENCES, POLICY AND LAW**
Modules include:
- ▶ Environmental Law and Policy

YEAR 4 FOCUS ON YOUR CHOSEN SUBJECT

ENVIRONMENTAL SCIENCE AND ENGINEERING PATHWAY

- ENVIRONMENTAL SCIENCE AND ENGINEERING**
Modules include:
- ▶ Research Project
 - ▶ Agri-Environmental Issues and Policy
 - ▶ Transport Operations and Planning
 - ▶ Environmental Impact Assessment

- ▶ Marine Community Ecology
- ▶ Environmental Assessment
- ▶ Environmental Geology
- ▶ Energy Systems and Climate Change
- ▶ Climate Model and Scenario Applications
- ▶ Interdisciplinary Project on Sustainability

- SOCIAL SCIENCES, POLICY AND LAW**
Modules include:
- ▶ The Urban Environment
 - ▶ Climate Politics and Policy
 - ▶ Behavioural Economics for Environmental Policy

BSc (Honours) Sustainability: Environmental Science and Engineering

| MSc (Taught) | PhD | Industry |
|---|--|---|
| <ul style="list-style-type: none"> ▶ MSc Applied Environmental Science ▶ MSc World Heritage Management ▶ MSc Plant Biology ▶ MSc Climate Change: Science and Impacts ▶ MSc Environmental Sustainability ▶ MSc Environmental Technology ▶ MSc(Agr) Rural Environmental Conservation and Management ▶ MSc (Agr) Sustainable Agriculture and Rural Development ▶ MSc Sustainable Energy and Green Technology ▶ MSc Wildlife Conservation and Management ▶ MEngSc Water, Waste and Environmental Engineering | <ul style="list-style-type: none"> ▶ Students can pursue a PhD in universities in Ireland or abroad in areas such as ecology, microbiology, fisheries, conservation biology, environmental management and global change | <ul style="list-style-type: none"> ▶ Careers as consultants, managers and advisers in large organisations and private businesses. ▶ International organisations such as the UN, the European Environment Agency and the European Commission, Government Departments, State agencies and Conservation Organisations. ▶ Diverse areas such as renewables, clean technology management and energy efficiency ▶ Advise industries on social and environmental strategies. |

*See pages 4 and 5 for information on the terminology used above. Potential combinations shown here are examples only and are not guaranteed by UCD. Modules are subject to change each year.