

What Will I Study on the TU835 BSc (Hons) environmental management stream?

TU835 is a combined four-year undergraduate programme. That means that students can study one of two streams and aim to graduate with either a BSc (Hons) in Spatial Planning or a BSc (Hons) in Environmental Management.

The environmental management stream includes the following specialist modules: -

Stage 2	Year two – Environmental Management
SSPL2030	Environmental Science
SSPL2028	Environmental Analysis
SSPL2033	Introduction to Climatology and Meteorology
SSPL2037	Soil Science
SSPL2062	Sustainable Waste Management
SSPL2029	Field Ecology
SSPL2032	River Basins & Hydrology

Stage 3	Year three – Environmental Management
SSPL3023	Sustainable Resource Management
SSPL3027	Environmental Law and Institutions
SSPL3034	Environmental Economics
SSPL3021	River Basins – Assessment & Management
SSPL3033	Climate Change – Systems and Policy
SSPL3064	Conservation Management Plans
SSPL3036	Environmental Management Techniques

Stage 4	Year four – Environmental Management
SSPL4017	Eco-management and Auditing
SSPL4019	Environmental Licensing
SSPL4022	Rural Management Plans
SSPL4021	Environmental Licensing Project
SSPL4023	Environmental Assessment Project

The next few pages provide a brief overview and description of a *sample* of modules on the environmental management stream and what students can expect to learn and experience.

SSPL2030 Environmental Science

Stage Two / 5 credit module

Lecturer: Paul O'Connor

This module seeks to develop knowledge in the basic areas of environmental science and to expand understanding of theory, concepts and processes as applied to the natural environment and its management in a sustainable way.

The module reviews and explores the general nature of environmental science and the challenges and scales of environmental change (locally to globally). Particularly emphasis is placed on the fundamental concepts of structure and function as they relate to the major biological, biogeographical and biogeochemical processes in nature. The interaction between key biotic and abiotic components in the biosphere is considered and the issues of system theory, system complexity and systems analysis are introduced.

The module is designed to provide a theoretical foundation to students of environmental management, bio-resource management and allied disciplines.



SSPL2029 Field Ecology

Stage Two / 5 credit module

Lecturer: Melinda Lyons

This module consists of field-based projects and exercises developed to expose the student to a range of techniques used to gather data on flora and fauna, coastal ecosystems, woodlands, wetlands, uplands and other habitats in Ireland.

The work develops skills in the area of field assessment, sample collection and data gathering, presentation and report writing. There is an emphasis on identification of species and description of key habitats in Ireland and on the analysis of data gathered.



SSPL2062 Sustainable Waste Management

Stage Two / 5 credit module

Lecturer: Marian Coll

This module will introduce students to fundamental principles of waste management. Waste generation and waste characterisation are examined, as are techniques for waste collection, storage, transport, utilisation (including recycling and recovery).

This module will develop and enhance learner knowledge and awareness of waste management strategies applicable at National, Regional and Local level.

The module will provide students with an understanding of the legislation, definitions, concepts and strategies of waste management.



SSPL3021 River Basins – Assessment & Management

Stage Three / 5 credit module

Lecturer: Alan Gilmer

This module involves exploring the nature and dynamics of water and river systems in the landscape. The aim of this module is to build on the student's earlier exposure to hydrology and river basin management and deepen knowledge and understanding of catchment geomorphological, biogeographical and hydrological processes.

This module addresses the policy and practices of river management at a national and European level. Drainage basins capture precipitation falling within their boundaries and channel it through a complex transport network which is intimately associated with and characterised by, the nature of the landscape.

This module examines the biophysical characteristics of the river basin and how these factors control the dynamics of water flow, the nature of flooding, the challenges associated with climate change, and the most appropriate strategies for water resource and river basin management.

This is an intermediate to advanced level module. The module is directed towards students of environmental management, environmental science, sustainable development, bio-resource management and allied disciplines.



SSPL3033 Climate Change – Systems and Policy

Stage Three / 5 credit module

Lecturer: Stephen Barry

Climate change is the study of variations in long term weather patterns over different spatial and temporal scales and the possible causes of such variations. In the most general sense, the term ‘climate change’ encompasses all forms of climatic inconstancy. The aim of this module is to address the basic principles of climate change, climate policy analysis & modelling. The nature of the interaction between land use & climate change will be explored with particular reference to biosphere-atmosphere feedback control. The module addresses current international & national climate policy & the use of modelling in policy analysis. The module introduces the student to the fundamental principles of Earth’s climate system, system dynamics & the general approach to model construction in climate policy analysis.

This module is designed to provide an intermediate level introduction to climate change science and policy. The module is directed towards students of environmental management, environmental science, bio-resource management and allied disciplines. However, the module has wide applicability and would also be relevant to individuals with an interest in environmental policy design as well as those working, or intending to work, in wider policy development settings. The module provides an overview of the science, tools and resources needed to become more effective leaders and managers in adapting to climate change.



SSPL4017 Eco-management and Auditing

Stage Four / 5 credit module

Lecturer: Marian Coll

Environmental auditing is a management tool comprising a systematic, documented, periodic and objective evaluation of how well, the environmental organization, management and equipment within an enterprise are performing. Environmental auditing process has the aim of promoting efficiency and helping to safeguard the natural and built environment by: (i) facilitating management and control of activities that impact on the environment; and (ii) assessing compliance with company policies which include meeting regulatory requirements and operating to defined standards. Building on SSPL3022 students develop skills used in the formal process of environmental auditing and to ensure that graduating candidates have a good working knowledge of the process of corporate environmental management.



SSPL4019 Environmental Licensing Project

Stage Four / 5 credit module

Lecturer: Paddy Lambe

This module introduces students to current practices in the preparation of major types of environmental licenses as well as their assessment.

The aim of this module is to ensure that graduating candidates have a good working knowledge of current practice in the preparation and assessment of major types of environmental licenses and how these relate to environmental management.

