

## STARS Application Data Collection

*Category: Engagement*

*Subcategory: Public Engagement*

This document has been put together to summarise some of the Public Engagement related data required for a complete STARS application. The information in this document has been taken from the [STARS Technical Manual](#). This manual contains full descriptions of each subcategory, with definitions and examples. This document has pulled the necessary information to summarise these sections, but the technical manual is [available](#) if more details are needed. In this document there is 1 section from the STARS application:

- EN 12 Continuing Education (5 Credits)

This data is being sought after for 2017 as the baseline year and 2019 as the performance year. Please feel free to contact [t.adams4@nuigalway.ie](mailto:t.adams4@nuigalway.ie) or [jamie.goggins@nuigalway.ie](mailto:jamie.goggins@nuigalway.ie) if you have any questions.

### EN 12 Continuing Education (5 Credits)

This credit recognizes institutions that provide continuing education courses and programs in sustainability to the community. Such courses train community members in sustainability topics and help build knowledge about the subject. They can also provide the training people need to obtain and perform green jobs. Certificate programs offer professional recognition for sustainability training and are important tools in helping students obtain, perform, and advance their position in green jobs.

## Part 1

Institution must provide an inventory conducted during the previous three years to identify its continuing education sustainability course offerings and describe for current and prospective students how each course addresses sustainability. For each course, the inventory must include:

- The title and department (or equivalent) of the course.
- A brief course description or rationale explaining why the course is included that references sustainability, the interdependence of ecological and social/economic systems, or a sustainability challenge.

Courses for which partial or incomplete information is provided may not be counted toward earning points for this credit. An institution that has developed a more refined approach to course classification may use that approach as long as it is consistent with the definitions and guidance provided. For part 1 of this credit, please provide:

- Total number of continuing education courses offered. **320**
- Number of continuing education courses that are sustainability course offerings. **31**
- A copy of the institution's inventory of its continuing education sustainability course offerings and descriptions (text or upload). **See below**

The following modules are delivered by the centre for Adult Learning & professional Development, in association with a wide range of academic Schools and Colleges across NUI Galway.

**BST154: The Lean Organisation and Technology 5ECTS L8**

Lean environmental management is based on the concept of continuous improvement of an organisation's environmental performance over time. In this way the organisation's environmental plan is continuously changing in line with its activities as well as external influencing factors such as environmental legislation, changes in technology, and market pressures.

**BST157: Environmental Leadership in Organisations 5ECTS L8**

While environmental protection is a global issue, environmental activities occur at all levels with industrial and commercial environments playing a lead role. This module will explore local and global sustainability issues and their implications for industrial and commercial environments and examine case studies of environmental leadership in practice.

**BST156: Environmental Legislation and Compliance 5ECTS L8**

Knowledge of current minimum legal expectations for environmental compliance is fundamental to achieving good environmental management in industrial and commercial environments. This module is aimed at professionals, will provide students with a practical foundation in the principles of compliance and risk management for corporations in Ireland.

**BST153: Environmental Management for Organisations 5ECTS L8**

Drawing on contemporary examples, Environmental Planning and Management for Organisations will explore the roots and principles of environmental planning and management in practice, introducing students to a range of conceptual and practical approaches. This is a core module focusing on processes, scale and case studies in environmental planning in industrial and commercial organisations and laying the foundation for the other modules.

**BST151: Energy Management 5ECTS L8**

Improving energy efficiency and reducing carbon footprints and energy costs is a priority for many organisations. An Energy Management System (EnMS) can play a lead role in

achieving these aims. An EnMS is a process for continually improving energy performance. Suitable for all organisations, whatever the size or sector, it is particularly beneficial in organisations operating energy intensive processes.

#### **BST150: Waste Management and Compliance 5ECTS L8**

This module will examine Ireland's current and future focus on waste prevention, reuse, maximisation of recycling and using waste as a fuel in replacement of fossil fuels. It will explore all elements of the circular economy and how good waste management can be key to boosting competitiveness, fostering sustainable economic growth and generating new jobs. This module will provide students with in depth knowledge of waste legislation and the key issues and practical implications in relation to waste management and compliance in industrial and commercial environments. Regional and sectoral case studies will be explored. This module will include a practical application of waste management through the development of a waste management plan for the students' organisation or department. A key part of the module will be talks by guest speakers from industry and relevant statutory bodies.

#### **BST152: Water Management and Conservation 5ECTS L8**

Water is one of Ireland's most valuable resources. Currently almost half of treated water is lost through leaks from both customer properties and the distribution network. This course will examine Ireland's current and future focus on water conservation and reuse. This course will provide students with an understanding of the methods and key issues of water conservation and its practical implications in industrial and commercial environments. This module will include a practical application of water conservation and the classes will incorporate invited speakers from the water conservation sector. A learning outcome from this module will include the completion of a water audit for the students' organisation or department.

#### **BST155: Environmental Awareness and Corporate Social Responsibility 5ECTS L8**

Employee engagement in environmental awareness, energy efficiency and carbon reduction can help change behaviour in the workplace and reduce unnecessary energy consumption and waste. This module examines the role of information and education in environmental awareness in industrial and commercial environments and their influence on environmental behaviour. Topics will include: an introduction to environmental awareness, the relationship between information, attitudes and action and an introduction to the Environment pillar of corporate social responsibility (CSR). The module will also examine case studies in environmental awareness campaigns and CSR in industrial and commercial environments.

The module is designed to equip learners with the knowledge and skills to become competent trainers in environmental awareness who can then develop, deliver, assess and evaluate their own environmental awareness campaigns.

#### **BST158: Lifecycle Assessment and Design for Environment 5ECTS L8**

This module will explore various environmental issues as they apply to design of products, processes and services. It will explore the lifecycle assessment approach to lean practices. On completion of this module, the student should be able to demonstrate a comprehensive understanding of process and product development from an environmental sustainability perspective. This understanding should be based on knowledge of the various methodologies and tools used by product or process development teams. The methodologies and tools will be presented in the context of various models and will be illustrated with sectoral, national and international industrial case studies. At the end of this module students should see environmental challenges as unmet market needs that provide business growth opportunities through innovation, entrepreneurship, organizational change and targeting new market sectors.

#### **BS1152: Environmental Science 5ECTS L8**

This module aims to enhance the learner's understanding and appreciation of environment-related disciplines. It covers facts and attitudes that help the learner to understand and evaluate current environmental issues critically, evaluate technological advances, and put environmental issues into a legal perspective.

#### **BS1148: Environmental Science 5ECTS L8**

This module aims to enhance your understanding and appreciation of environment-related disciplines. It provides you with facts and attitudes that will help you understand and evaluate current environmental issues critically, evaluate technological advances, and put environmental issues into a legal perspective. In this module we have linked current environmental concerns with traditional science and social-economic issues.

#### **DT1145 Intro to Environmental Science 5ECTS NFQ7**

The aim of the module is to introduce you to various disciplines that fall under the heading of Environmental Science and provide you with a rounded overview of the relative topics

and concerns. Studying this module will give you facts and attitudes that will help you understand and evaluate current environmental issues.

#### EC4400 Environmental and Natural Resource Economics 5ECTS NFQ8

This course introduces students to the use of economic tools in analysing natural resource issues. The course discusses issues surrounding environmental sustainability in the context of economic growth. The theory of externalities and public goods are discussed and this addresses environmental external effects with respect to depletion and pollution. Causes of environmental externalities are also included in the context of missing markets and property rights. The components of value which, make up total economic value of environmental goods is considered. These include direct, indirect, option value and existence value. Willingness to pay and willingness to accept approaches are discussed. Revealed and stated preferences valuation techniques are included. Consideration is also given to the analysis of environmental policy instruments, with an emphasis on pollution control. Issues surrounding international environmental problems including climate change are also discussed.

#### EOS1101 Our Coastal Ocean 5ECTS NFQ8

This module will introduce students to the coastal ocean, the interface between land and sea. Students will discover how both land and marine-based processes affect the coastal ocean, and how processes in the coastal ocean affect both land and sea. Students will examine how human activity in the coastal ocean both affects and is modified by processes on land and in the open sea.

#### EOS1080 Geology of Ireland 5ECTS NFQ8

This 8-week module investigates the geology and the geological history of Ireland, relating past plate tectonic settings with their modern analogues. There will be one 2-day and one 1-day field trip as part of this module.

#### EOS1200 Observing Earth 5ECTS NFQ8

This 8 week module will introduce students to an array of remote sensing techniques used in Earth observation. It will include satellite, airborne, and marine based technologies, and cover image processing and interpretation. Case studies will show how this information can

be applied to the fields of environmental science, agriculture, archaeology, resource mapping, habitat mapping, natural hazards and land use.

#### EOS1201 The Peopled Planet 5ECTS NFQ8

This 8 week module investigates the interaction of humans with the planet. Topics covered will include human evolution, the exploitation of natural resources (including ores, non-metallic mineral resources, soils, construction materials, and energy sources), the influence of the natural environment on societies and health, and the challenges to societies and their infrastructures posed by geological conditions and events.

In AY21/22 we plan to offer standalone CPD modules from the MSc Biodiversity and Land Use Planning all of which are

#### EOS5107 Marine and Freshwater Acidification 5ECTS NFQ9

The CPD module in Marine and Freshwater Acidification will equip participants with relevant training in sampling and monitoring of waters and analysis of results. The programme will provide the technical competences to survey and assess acidification of marine, coastal, transitional, fresh, ground and drinking waters. The programme will give opportunities to learn practical skills, acquire data analysis and reporting skills that are in line with training needs identified in the public and private sector in an area of emerging importance associated with climate change.

#### EOS5106 Marine and Freshwater Resources: Monitoring and Management Project 5ECTS NFQ9.

Each student will conduct an individual research project within the area of marine and freshwater resources: monitoring and management. This involves preparing a literature review, identifying knowledge gaps, research questions and hypotheses and writing a final report of the research findings. This offers an opportunity for the students to apply learning from the course content to conduct independent research and original work. This module involves a series of discussions with supervisors and stakeholder and progress reporting to supervisors within agreed timeframes.

#### EOS5103 Environmental Problems in Marine and Freshwater Environments: Contaminants 5ECTS NFQ9.

Marine and freshwater environments have enormous intrinsic value regarding traditional uses (e.g., navigation, fishing, resource sources) together with more recent activities (e.g.,

mineral, oil, aggregate extraction, and renewable energies) The aim of this module is to provide students with knowledge on the contamination of our marine and freshwater environments and how chemical contaminants compromise the fragile balance of these ecosystems. Students will also learn about the fundamental concepts regarding the introduction of a suite of different contaminants into aquatic systems and how these can set off a series of complex biological and chemical reactions. In addition, the course will consider the important ecological and human risks regarding contamination of marine and freshwater systems, including drinking water supplies.

#### EV507 Ecosystem Science 5ECTS NFQ9

This module explores how the ecosystem can be assessed from a number of different perspectives including; i.e. geology, hydrology, soils, biodiversity, etc. Emphasis will be placed on understanding the connections between these parameters with a view to producing an overall integrated ecosystem assessment procedure.

#### EV508 Introduction to Flora & Fauna of Ireland 5ECTS NFQ9

This module is an introduction to the skills required to identify Irish plant and animal communities with special reference to legally protected species. The biogeography, life-cycles, distribution and ecology of a number of significant flora and fauna are assessed in addition to which their conservation status will be discussed in relation to ecological requirements. Emphasis will be placed on understanding the connections between their requirements and their conservation status.

#### EV514 Ecological Survey Techniques 5ECTS NFQ9

The course objective is to introduce students to a variety of techniques used for ecological field surveys. Methodologies include frame and pin vegetation quadrats, animal surveys using small mammal traps and freshwater surveys with reference to macroinvertebrate sampling and associated physical parameters. Data from field exercises are analysed and discussed in class with the objective of encouraging students to critically appraise data with reference to methodological limitations.

#### EV515 Biodiversity Legislation & Policy 5ECTS NFQ9

This module explores how conservation legislation and biodiversity policy can be linked into day to day planning work at a strategic and local level. Emphasis is placed on understanding the connections between national biodiversity actions, species action plans and local biodiversity action plans.

#### EV527 Habitat Identification & Assessment 5ECTS NFQ9

This module explores what a habitat is and the factors that influence habitat assessments. Specific reference will be made to habitat requirements, attributes and properties, monitoring issues (such as establishing a baseline, recruitment and mortality) and conservation evaluation criteria etc. Emphasis will be placed on understanding the connections between these requirements with a view to producing an overall habitat assessment procedure. Fossitt's Guide to Habitats in Ireland (2000) will be used to identify and assess habitats.

#### EV528 Habitat Creation, Management and Restoration 5ECTS NFQ9

This module outlines habitat management, the differences are between habitat management, creation and restoration; why and when each is necessary. It assesses philosophical and ethical approaches to habitat management, creation and restoration. Principles of habitat management are summarised in relation to the objectives of common management techniques, with special reference to management for a number of different taxa. Students will assess the effectiveness of measures to create, manage and restore specific grasslands, wetlands, woodlands, aquatic and coastal habitats.

#### EV529 Environmental Impact Assessment 5ECTS NFQ9

This module introduces Environmental Impact Assessment (EIA) with regard to European and Irish legislation. It covers the principles of environmental assessment theory and survey methods. This module focuses on the theory and methods of environmental assessment and the decision-making contexts in which these are employed. It explains the procedural stages of, and selected methodologies for, environmental assessment and provides practical experience in applying them. A critical review of the quality of Environmental Impact Statements (EIS) in Ireland is undertaken and recent trends in European Court Judgements (ECJ) are discussed.

#### EV530 Strategic Environmental Assessment (SEA) 5ECTS NFQ9

The module introduces Strategic Environmental Assessment (SEA) with regard to European and Irish legislation. The module focuses on the systematic approach and methods promoted by the SEA process, including stakeholder engagement and consultation. In addition, it outlines opportunities to embed biodiversity within the SEA process and the

decision-making contexts in which these are employed. Links between EIA and SEA are covered.

#### EV532 Climate Change & Biodiversity 5ECTS NFQ9

The Convention on Biological Diversity identified Climate Change as one of five global drivers of biodiversity loss. This module on Climate Change and Biodiversity introduces students to the scientific evidence for climate change, direct and indirect impacts on biodiversity, and the policy approaches driving the climate change adaptation process in Ireland. The module outlines the vulnerability of Irish biodiversity to climate change. In the module, special emphasis is given to assessing the resilience of biodiversity to help mitigate climate change impacts. It includes case studies to highlight the implications for biodiversity in implementing climate change adaptation strategies.

#### EV534 Invasive Species & Biodiversity 5ECTS NFQ9

This module explores how the local biodiversity can be impacted by a range of invasive species. In particular, this module focuses on the impacts of invasive species on native biodiversity and on the role of humans as vectors of invasive species and minimising the impacts of invasive species. In addition, it outlines the role of planning authorities in supporting resilient ecosystems through invasive species eradication or control programmes. Emphasis will be placed on understanding how invasive species become established and will look at case studies highlighting current thinking on control or eradication measures

#### EV5101 Water Framework Directive (WFD) 5ECTS NFQ9

This module explores the linkages between the Water Framework Directive (WFD) and conserving biodiversity. It outlines how different EU countries have defined targets such as "good ecological status". Case studies illustrate that increases in the resilience of biodiversity in aquatic ecosystems can be achieved by balancing sustainable water use with the long-term protection of available resources, while recognising limitations to the legislation. Emphasis will be placed on understanding the WFD and connections with other plans and programmes.

These modules are offered blocked together as awards of Certificate (30ECTS), Diploma (60ECTS) and MSc in Biodiversity and Land Use Planning (90ECTS) on a part-time basis by the College of Science & Engineering (*not* by the Centre for Adult Learning & Professional Development)

## Part 2

Does the institution have at least one sustainability-focused certificate program through its continuing education or extension department? If yes, provide a brief description of the certificate program(s). Degree-granting programs (e.g., programs that confer Baccalaureate, Masters, or Associate degrees) and certificates that are part of academic degree programs are not included in this credit; they are covered in the Curriculum subcategory.

Corporate Environmental Planning (Specialist Diploma) offered by the centre for Adult Learning & professional Development through the College of Science & Engineering. First offered in AY2019- 2020 and running annually as a 1 year part-time, 30 ECTS at NFQ level 8.

This is a new practice-based course developed by NUI Galway and Next Level Skillnet. This course provides an overview of the evolution of environmental planning and management and its relationship to society and industry today. Drawing on contemporary examples, this course will explore the roots and principles of environmental planning and management in practice, introducing students to a range of conceptual and practical approaches. It will prepare students with the knowledge and skills to be leaders and decision makers in developing solutions for contemporary environmental issues in industrial and commercial environments. It will also provide students with an understanding of waste legislation, the key issues and practical implications in relation to waste management and focus on lean processes and waste prevention.

This specialist diploma award is particularly suitable for students requiring medium-term upskilling for career advancement in the area of environmental policy and leadership to strengthen their capacities as efficient environmental managers and effective environmental leaders in their organisations.

This is delivered as an elective stream on the BSc In Science & Technology Studies. In addition, by selecting 4 required and two optional modules, it is also available as a 30 ECTS special purpose award for those who already have a degree and want to upskill/reskill in the specialism. Furthermore, all of the individual 5ECTS modules are available on a standalone basis for those pursuing CPD.

### M.Sc. (Biodiversity & Land Use Planning)

This Master of Science (MSc) course provides you with the crucial skills and knowledge needed to manage biodiversity resources sustainably. The programme's objectives are:

- To integrate an international perspective and new research findings into a biodiversity and land use approach

- To provide research-led opportunities that will help find solutions for conservation and planning conflicts
- To develop expertise within local authority and public/private sector staff so they can meet international biodiversity and conservation obligations

This part-time course extends over 24 months and runs in two-year cycles continuously from September through to the end of August of the second year. The modular course is devoted to scientific and policy coursework delivered in a blended learning format, comprising a mixture of face-to-face contact in addition to private study combined with online support.

Aimed at individuals employed in the conservation, planning and engineering sectors, this course has been re-developed to meet the needs of working graduates who wish to upskill or change careers. Provision of flexible learning opportunities is a key aim of this programme and the course is now open to students wishing to join the programme at any time during the academic year.

All of the modules on this masters are offered as standalone CPD and listed separately above, but this is the full programme.

The following are full programmes (ie not standalone modules) and delivered by the university but not as Adult Education and may possibly qualify for mention elsewhere in the report

10EH2 MSC OCCUPATIONAL AND ENVIRONMENTAL HEALTH & SAFETY (PART-TIME)

1MCM2 M.SC. (COASTAL AND MARINE ENVIRONMENTS: PHYSICAL PROCESSES, POLICY AND PRAC