



NUI Galway  
OÉ Gaillimh



UNIVERSITY of LIMERICK  
Ollscoil Luimnigh

# Specialist Diploma in ENVIRONMENTAL SUSTAINABILITY

DURATION: 1 year part-time

- Curriculum focused on emerging subject area of environmental sustainability
- Delivery via blended learning teaching methodologies
- Medium-term up-skilling for career advancement or specialisation and/or cross-skilling for career change or cross-team roles
- Minor award at Degree level (NFQ level 8)



## ➤ ENTRY REQUIREMENTS

Applicants must be in receipt of the Diploma in Science & Technology Studies or a related Diploma or higher qualification. Applicants may use experience in addition to academic qualifications to demonstrate that they satisfy the course prerequisites.

## ➤ WHAT TYPE OF COURSE IS IT?

This one-year, part-time Diploma course aims to develop knowledge around the issues and opportunities associated with achieving and maintaining environmental sustainability in industry, business and society, and to develop associated technical and soft skills. The qualification is considered a minor award at Degree level.

The programme is delivered by blended learning, participants receive learning materials in both online and in hard copy format for each module. Materials are specifically designed for independent study and will be supplemented by supporting online learning resources where appropriate. The course requires attendance at tutorials in NUI Galway once every four weeks, or approximately ten Saturdays, from September to June. Between campus visits you will interact with tutors and fellow students via an online learning system.

[www.modularbsc.ie](http://www.modularbsc.ie)

## > HOW WILL I BENEFIT?

The course is intended for those who wish to focus their skills with a view to moving into specialist and hybrid environmental roles e.g. internal environmental policy consultants, waste minimisation specialists, energy optimisation advisors.

On completion of the course graduates will have highly marketable, up-to-date and confidence-building knowledge and skills relevant to the green economy. They will have practiced and been assessed on a range of technical and transferable skills which will be beneficial at the personal, enterprise and community levels.

If graduates so wish, they can progress to the B.Sc. in Science & Technology Studies (NQF level 8) with credit for their studies. In this case they will be exempt from one elective stream in the Degree cycle.

## > LEARNING OBJECTIVES

ON COMPLETION OF THE COURSE PARTICIPANTS SHOULD HAVE:

- An appreciation of environmental factors, standards and policies which impact on industry and business sectors
- Specialised knowledge and skills in the areas of environmental policy, compliance and auditing
- Developed insight of national and international issues in relation to green energies and the green economy in general
- Technical knowledge and skills in the design of products and process with a view to minimizing environmental impact by streamlining processes, decreasing waste and optimising reuse, recycling and waste disposal
- Built their management and leadership capabilities to facilitate organisational change towards environmentally sustainable processes, products and procedures

## > CURRICULUM

This Specialist Diploma consists of four inter-related taught modules and a project, each worth 6 ECTS, giving a total of 30 ECTS.

THE FOUR TAUGHT MODULES ARE:

- Environmental Management Systems
- Environmental Impact Assessment
- Design for Environment
- Sustainable Energy

The module contents are presented at the end of this document.

The project topic is chosen by the participant in consultation with their supervisor.





## ASSESSMENT

Assessment of the taught modules is through continuous assignments and written examinations. Exams take place at the end of each semester. The project is assessed through staged delivery of a project report. The award mark is based on an average result of all five modules.



## COURSE STRUCTURE

The course is offered over one academic year (September to June) on a part-time basis. Two taught modules are completed each semester (September to December and January to June) while the project is completed over the academic year.



## FEES

The fees for the course are €1,900 for E.U students and €2,400 for non-E.U students. THIS FEE INCLUDES;

- Registration
- Tuition fees
- Course materials
- Examinations and assessments



## HOW DO I APPLY?

Applications should be made online at [www.nuigalway.ie/apply](http://www.nuigalway.ie/apply)



## CONTACT

Further information is available from:

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[www.modularbsc.ie](http://www.modularbsc.ie)



# MODULE CONTENTS

## > BST139 Environmental Management Systems

<b>Unit 1</b>	Overview of Environmental Issues and Environmental Management
<b>Unit 2</b>	Introduction to Environmental Management Systems
<b>Unit 3</b>	Planning the Environmental Review
<b>Unit 4</b>	Environmental Policy
<b>Unit 5</b>	Environmental Objectives and Targets
<b>Unit 6</b>	Roles and Responsibilities for Developing and Implementing the EMS
<b>Unit 7</b>	Environmental Awareness and Training
<b>Unit 8</b>	Environmental Communications and Documentation
<b>Unit 9</b>	Operational Control
<b>Unit 10</b>	Emergency Preparedness and Response
<b>Unit 11</b>	Environmental Monitoring and Measurement
<b>Unit 12</b>	Environmental Auditing
<b>Unit 13</b>	Corrective Action
<b>Unit 14</b>	Environmental Management Review
<b>Unit 15</b>	Environmental Performance Reporting
<b>Unit 16</b>	Module Review

## > BST140 Environmental Impact Assessment

<b>Unit 1</b>	Overview of Environmental Impact Assessment (EIA)
<b>Unit 2</b>	Legal Framework for EIA
<b>Unit 3</b>	EIA Topics that must be Addressed
<b>Unit 4</b>	Screening for EIA
<b>Unit 5</b>	Scoping For EIA
<b>Unit 6</b>	Nature and Significance of Environmental Impacts
<b>Unit 7</b>	Mitigation Measures for EIA
<b>Unit 8</b>	Environmental Impact Statement (EIS)
<b>Unit 9</b>	Managing EIA Project
<b>Unit 10</b>	Review of EISS
<b>Unit 11</b>	Roles of Participants in Practice
<b>Unit 12</b>	Decision Making in EIA Process
<b>Unit 13</b>	Post – Decision Follow-Up
<b>Unit 14</b>	Critical Assessment of the EIA Process
<b>Unit 15</b>	Strategic Environmental Assessment (SEA)
<b>Unit 16</b>	Module Review

## > BST141 Sustainable Energy

<b>Unit 1</b>	Energy Trends Current Options
<b>Unit 2</b>	Utilization of Energy – Sustainable Consumption and Energy Awareness
<b>Unit 3</b>	Tradition Fuels used for Energy Use
<b>Unit 4</b>	Solar Thermal Heating
<b>Unit 5</b>	Solar Photovoltaics
<b>Unit 6</b>	Bioenergy
<b>Unit 7</b>	Hydroelectricity
<b>Unit 8</b>	Tidal and Wave Power
<b>Unit 9</b>	Wind Energy
<b>Unit 10</b>	Geothermal Energy
<b>Unit 11</b>	Electricity Generation and Integration
<b>Unit 12</b>	Electricity Distribution
<b>Unit 13</b>	Nuclear Power
<b>Unit 14</b>	Sustainable Building
<b>Unit 15</b>	Passive Homes and Sick Building Syndrome
<b>Unit 16</b>	Case Studies

## > BST142 Design for Environment

<b>Unit 1</b>	Introduction to DFE
<b>Unit 2</b>	Conceptual Principals of DFE
<b>Unit 3</b>	Product and Process Development
<b>Unit 4</b>	Environmental Performance Metrics
<b>Unit 5</b>	Methods for Assessing and Improving Environmental Performance
<b>Unit 6</b>	Integrated Lifecycle Management
<b>Unit 7</b>	Case Study: AT & T
<b>Unit 8</b>	Case Study: Environmental Conscious Products – An IBM Initiative
<b>Unit 9</b>	Case Study: Applied Materials Incorporated - Semi Conductor Equipment Design
<b>Unit 10</b>	Ten Ways to Prevent Pollution by Design
<b>Unit 11</b>	Organisational Issues in DFE
<b>Unit 12</b>	DFE: Corporate Planning and Compliance
<b>Unit 13</b>	Sustainability in Design Research and Practise
<b>Unit 14</b>	Environmentally Sustainable Design-orienting Tools
<b>Unit 15</b>	Design for Environment in Perspective
<b>Unit 16</b>	The Road to Eco – Efficiency