Waterford Institute *of* Technology

INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

POSTGRADUATE

Master of Science in Sustainable Energy Engineering

LEVEL 9

Department of Engineering Technology

This postgraduate programme has been designed to facilitate professionals practicing in the areas of Building Design, Management and Technology. Its purpose is to provide expertise in terms of: Energy Use, Environmental Performance and Sustainability in the Design and Operation of Buildings and their Associated Facilities and Services Systems.

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Master of Science in Sustainable Energy Engineering

Course Outline

This postgraduate programme has been designed to facilitate professionals practicing in the areas of Building Design, Management and Technology. Its purpose is to provide expertise in terms of: Energy Use, Environmental Performance and Sustainability in the Design and Operation of Buildings and their Associated Facilities and Services Systems.

The programme will focus on Sustainable and Low Energy Building Design, Building Energy Performance and Analysis, Dynamic Thermal Simulation, Low and Zero Carbon Heat and Power Generation Technologies, Energy Policy and Legislation, Energy Auditing, Facilities Management, Building Pathology and Investigation.

This programme has been developed to meet the Level 9 criteria as set out by the National Qualifications Authority of Ireland (NQAI). The treatment of all programme subjects will encourage the development of the student's powers of analysis, of synthesis and of communication. This will be achieved by building upon both the undergraduate studies and postgraduate experience of participants to develop a broader understanding of Low Energy Building Design and Management. In addition the selection of a research topic for a dissertation will allow the student to concentrate on one or more of these directions.

The Masters degree requires successful completion of twelve mandatory modules. The student must also complete an applied programme consisting of a Research Dissertation and an Industrial Research Seminar Series.

Programme Structure

The programme is delivered in a modular format as follows:

Semester 1 (Sep - Dec)	Semester 2 (Jan - Apr)	Semester 3 (May - Aug)
Research Methods	Sustainability & the Environment	Dissertation
Personal Effectiveness	Advanced Dynamic Thermal Simulation - Services Systems	
Statistical Analysis	Energy Auditing	
Dynamic Thermal Simulation - Building Fabric	Building Pathology & Investigation	
Building Services Systems	Facilities Management	
Passive & Low Energy Building Design	Sustainable Energy Technology	

Career Opportunities

Graduates from this programme will be equipped with the knowledge and skills to supplement their existing areas of expertise and allow them to progress to a career in the design or management of energy in buildings either in Ireland or abroad. Typical career opportunities for graduates can be found in fields such as:

- Facilities Management
- Energy Auditing
- Energy Management within a Corporate Structure
- Energy Management Consultancy
- Construction Industry Design Professional

Entry Details

Students wishing to apply for this course will normally require a second class honours degree or equivalent. The course is ideally suited for graduates of engineering related and technical programmes such as Building Services Engineering, Mechanical Engineering, Civil Engineering, Construction Management, Quantity Surveying, Architectural Technology and Architecture. International Students are required to meet the WIT postgraduate TOEFL (600)/IELTS (6.5) English Language requirement standard. Students from other associated engineering and science disciplines are welcome to apply. The programme is available in both full-time and part-time modes.

Fees

For information on fees please visit our web page at www.wit.ie/pg

Contacts

Admissions queries contact:
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Academic queries contact:
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