



<b>Title:</b>	Building Regulatory Eng <b>APPROVED</b>
<b>Long Title:</b>	Building Regulatory Engineering
<b>Module Code:</b>	CIVL8004
<b>Duration:</b>	1 Semester
<b>Credits:</b>	5
<b>NFQ Level:</b>	Advanced
<b>Field of Study:</b>	Civil Engineering
<b>Valid From:</b>	Semester 1 - 2014/15 ( September 2014 )
<b>Module Delivered in</b>	no programmes
<b>Module Coordinator:</b>	DES WALSH
<b>Module Author:</b>	MARY MOLONEY
<b>Module Description:</b>	This module will familiarize the student with the technical engineering aspects of the Irish Building Regulations. Engineering solutions to various requirements of the regulations will be emphasised.
<b>Learning Outcomes</b>	
<i>On successful completion of this module the learner will be able to:</i>	
LO1	Assess the compliance of a building with all aspects of the building regulations
LO2	Carry out engineering designs and calculations as required by the various technical guidance documents to the building regulations
LO3	Determine energy ratings for buildings and calculate CO2 emissions
LO4	Prepare a Fire Safety Certificate Application for a building.
<b>Pre-requisite learning</b>	
<b>Incompatible Modules</b>	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module. You may not earn additional credit for the same learning and therefore you may not enrol in this module if you have successfully completed any modules in the incompatible list.</i>	
No incompatible modules listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Requirements</b>	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.</i>	
No requirements listed	
<b>Co-requisites</b>	
No Co Requisites listed	

**Module Content & Assessment**

**Indicative Content**

**Building Regulations**

Introduction. Building Control Regulations and codes of practice. Technical guidance documents. Site Preparation & Resistance to Moisture. Sound. Ventilation. Drainage & Waste Water Disposal. Hygiene. Sound Transmission. Heat producing appliances. Stairways, Ladders, Ramps & Guards. Heat Producing Appliances. Design calculations.

**Structure**

Standard building construction in masonry, timber frame, and steel frame. Progressive collapse design in structural steel, reinforced concrete, masonry and structural timber.

**Fire Safety**

Means of Escape, Internal Fire Spread (Linings), Internal Fire Spread (Structure), External Fire Spread, and Access & Facilities for the Fire Service. Preparation of a Fire Safety Certificate Application for a commercial building.

**Conservation of Fuel & Energy**

CO2 emission calculations, elemental heat loss calculations; Building Energy calculations, thermal bridging, heating controls & heat loss from associated pipework, renewable technologies, energy efficient lighting systems.

**Universally Accessible Building Design**

Ramps, Lifts, Stairs, Glass Manifestations, Internal & External Signage, Means of Escape, Evacuation Lifts, Acoustics, Tactile Warning Surfaces, Pedestrian Crossing & Footway Design

**Construction Product Regulations**

Examination of key areas of the Construction Products Regulations and the associated CE marking of construction products under harmonised standards. Declarations of performance documents also addressed.

Assessment Breakdown	%
Course Work	25.00%
End of Module Formal Examination	75.00%

**Course Work**

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Short design project on aspects of the Building Regulations	1,2,3	25.0	Week 9

**End of Module Formal Examination**

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	End-of-Semester Final Examination	1,2,3,4	75.0	End-of-Semester

**Reassessment Requirement**

**Repeat examination**

Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.

The institute reserves the right to alter the nature and timings of assessment

**Module Workload**

<b>Workload: Full Time</b>				
<i>Workload Type</i>	<i>Workload Description</i>	<i>Hours</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Presentation of course material	4.0	Every Week	4.00
Independent & Directed Learning (Non-contact)	Self directed learning	3.0	Every Week	3.00
Total Hours				7.00
Total Weekly Learner Workload				7.00
Total Weekly Contact Hours				4.00

<b>Workload: Part Time</b>				
<i>Workload Type</i>	<i>Workload Description</i>	<i>Hours</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Presentation of course material	4.0	Every Week	4.00
Independent & Directed Learning (Non-contact)	Self directed learning	3.0	Every Week	3.00
Total Hours				7.00
Total Weekly Learner Workload				7.00
Total Weekly Contact Hours				4.00

## Module Resources

### *Recommended Book Resources*

- BSI 2008, *BS9999:2008 Code of Practice for Fire Safety in the design management and use of buildings* [ISBN: 978 0 580 57920 2]
- National Disability Authority 2002, *Building for Everyone* (ISBN 1870499034)

### *Supplementary Book Resources*

- E.C. Ozelton, J.A. Baird 2006, *Timber Designers' Manual*, 3rd Ed., Blackwell Publishing [ISBN: 78-1-405-14671-5]
- RIBA Enterprises, *Designing for Accessibility – Centre for Accessible Environments* [ISBN: 0-85125-465-9]
- BRE, *BRE Report 187 “External Fire Spread: Building Separation and Boundary Distances”* [ISBN: 0-85125-465-9]
- BSI, *BS 5588 Series - “Fire Precautions in the Design, Construction & Use of Buildings”*
- DOELG, *Technical Guidance Documents to Irish Building Regulations*, <http://www.environ.ie/en/TGD/>

*This module does not have any article/paper resources*

*This module does not have any other resources*

