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MODULE DESCRIPTOR

Module Title

Introduction to Building Technology

Reference	AC1002	Version	11
Created	July 2021	SCQF Level	SCQF 7
Approved	July 2005	SCQF Points	15
Amended	September 2021	ECTS Points	7.5

Aims of Module

To enable the student to analyse and understand the construction of existing and newbuild domestic buildings.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Analyse and apply learning of the materials, structure and construction of domestic buildings.
- 2 Demonstrate knowledge and understanding of the materials, structure and construction of domestic buildings.

Indicative Module Content

Strategic site analysis considering basic principles of sustainable design, site specific design, design precedent, opportunities for renewable technologies and the impact of buildings on their immediate environment. Basic structural principles in relation to forces and loads applied to typical building of domestic scale; Identification of tension, compression, bending, shear and deflection; Investigation and critical appraisal of principles of timber frame construction; Integration of structural principles with construction methods. Historic development of construction techniques; Material characteristics and properties; Building fabric; Principles of thermal performance; Use and specification of building components; Environmental considerations of construction techniques and specification choices. Basic principles of measuring fabric performance. Basic domestic scale services; drainage; heating, ventilation. application and integration of renewable technologies

Module Delivery

This module is delivered by lectures, practical workshops, directed student research and online activities.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	30	N/A
Non-Contact Hours	120	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	60%	Outcomes Assessed:	1
Description:	Over the course of the semester students are asked to compile a 'Journal' of coursework exercises, site visits, records of workshop exercises and lecture notes which incorporate analytical graphic, written and technical design tasks.				

Component 2

Type:	Examination	Weighting:	40%	Outcomes Assessed:	2
Description:	In an open book exam setting where students can use the 'Journal' that they have produced over the semester, students are requested to answer questions covering material presented in lectures and/or tutorials.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The overall module grade is based on 60% weighting of Component 1 (Coursework Y axis) and 40% weighting of Component 2 (Examination X axis). An overall minimum grade D is required to pass the module. Non-submission of either component will result in an NS grade. Architecture students must pass each component with a minimum D grade to pass the module. The main grid applies to all other courses.

		Examination:						NS
		A	B	C	D	E	F	
Coursework:	A	A	A	B	B	C	E	
	B	B	B	B	C	C	E	
	C	B	C	C	C	D	E	
	D	C	C	D	D	D	E	
	E	C	D	D	E	E	E	
	F	E	E	E	E	F	F	
	NS	Non-submission of work by published deadline or non-attendance for examination						

Module Requirements

Prerequisites for Module	None in addition to course (SCQF7) entry requirements.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 Borer P. & Harris C., 2005. The Whole House Book. 2nd Edition. Centre for Alternative Technology Publications).
- 2 Ching F D K., 2008. Building Construction Illustrated. 4th Edition . John Wiley & Son.
- 3 Deplazes A., 2013. 3rd edition. Constructing Architecture: Materials, Processes, Structures; A Handbook. Birkhauser Verlag AG.
- 4 Mitchell, J., 1997. The Craft of Modular Post & Beam. Hartley & Marks Publishers.
- 5 Zaretsky M., 2009. Precedents in Zero Energy Design. 1st Edition, Routledge.
- 6 Seward D, Understanding Structures-Analysis, Materials, Design (2003) 3rd edition.