

Module Title Introduction to Building Technology	Reference AC1002 SCQF Level SCQF 7 SCQF Points 15 ECTS Points 7.5 Created July 2002 Approved July 2005 Amended September 2012 Version No. 8
Keywords historic built environment context, timber construction, structure, sustainability and materials	

This Version is No Longer Current

The latest version of this module is available [here](#)

Prerequisites for Module

None in addition to course (SCQF7) entry requirements.

Corequisite Modules

None.

Precluded Modules

None.

Aims of Module

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

Learning Outcomes for Module

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

Indicative Student Workload

<i>Contact Hours</i>	Full Time
Assessment	5
Lectures	15
Practical	10
Workshops	

Directed Study

Directed Study	70
----------------	----

Private Study

Private Study	50
---------------	----

Mode of Delivery

This module is delivered by a blended learning approach focusing on directed student research, online activities, lectures and practical workshops.

Assessment Plan

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

	Learning Outcomes Assessed
Component 1	1
Component 2	2

Component 2 will be an open book continuous, online summative assessment. This will assess knowledge & understanding of the historic built environment context, timber construction, timber structure, materials, sustainability & low carbon legislation.

Component 1 will consist of the production of a semester long reflective journal portfolio submitted digitally. This will require the student to undertake directed research of their historic built environment context, timber construction, timber structure, sustainability and materials whilst applying their knowledge in groupwork practical workshops which are logged in the journal.

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.

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

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.