

MODULE DESCRIPTOR

Module Title

Design Technology 1 - Architectural Technology

Reference	SU2030	Version	4
Created	July 2021	SCQF Level	SCQF 8
Approved	August 2009	SCQF Points	30
Amended	September 2021	ECTS Points	15

Aims of Module

To provide the student with the critical ability to appreciate the technical design of contemporary factors which shape and control the built environment. To provide the student with the knowledge of design and technology in such a way to visualise these factors by applying 3d CAD concepts and skills.

Learning Outcomes for Module

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

- 1 Evaluate the application of design technology in a contemporary context through a creation of a 3D model of a low/medium rise contemporary building for visualisation and the production of industry standard orthographic drawn data.
- 2 Apply decision making processes to problem solving in contemporary building design.
- 3 Address human factors, materiality and technological development within modern design.
- 4 Use a range of media including physical and computer based techniques to illustrate design solutions.

Indicative Module Content

The module will focus on thematic studies of innovative technologies in contemporary building design. Contemporary building design philosophies and control mechanisms will be investigated to include, for example, global and local environment agendas, client/user driven imperatives, health and safety. Individual roles and team issues relating to the realisation of the design for the built environment will be examined. Physical and computer modelling will be used to develop and illustrate design solutions through the provision of media visualisation techniques, rendering, a walk through, fly a rounds, and virtual models.

Module Delivery

This is a module predominantly involving practical work in relation to a project, which includes field and studio work and, where appropriate, site visits. Supplementary CAD modelling to industry wide standard will be provided in a workshop environment with Tutor support. The workshops will be supplemented by keynote lectures. Directed study to core texts and resource material.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	90	N/A
Non-Contact Hours	210	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	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:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	Submission will include one assessment, both oral and project based, submitted as a poster and portfolio comprising graphic content, physical and CAD models, utilising aspects of BIM strategies and collaboration.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The overall module grade is based on 100% weighting of Component 1 (Coursework). An overall minimum grade D is required to pass the module. Non-submission will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A
B	B
C	C
D	D
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 SCQF8 entry requirements.
Corequisites for module	None.
Precluded Modules	None.

ADDITIONAL NOTES

Where appropriate, mixed discipline team working will be encouraged. Where appropriate, and within the context of the studio project, students will be encouraged to be innovative, experiment and push the boundaries of their competence with these techniques and tools.

INDICATIVE BIBLIOGRAPHY

- 1 Weston, R., 2008. Materials, Form and Architecture. Laurence King.
- 2 Wienand, N., 2008. Materials, specification and detailing: foundations of building design. Taylor & Francis.
- 3 Emmitt, S., 2012. Architectural Technology [electronic resource]. Wiley-Blackwell.
- 4 Krygiel, E., 2010. Mastering Autodesk Revit architecture 2011 [electronic resource]: Autodesk official training guide. Wiley.
- 5 Edwards, B., 2010. Rough guide to sustainability : a design primer: RIBA.
- 6 Schittich, C., et.al., 2007. Glass Construction Manual. Birkhauser.
- 7 Glasner, B., 2013. Wonder wood [electronic resource] : a favorite material for design, architecture and art. Birkhauser.