

MODULE DESCRIPTOR

Module Title

Design Technology 1

Reference	SU2501	Version	1
Created	August 2023	SCQF Level	SCQF 8
Approved	January 2024	SCQF Points	30
Amended		ECTS Points	15

Aims of Module

To provide the student with the critical ability to appreciate the technical design of contemporary projects 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 Adopt technology in design in a contemporary context through the creation of a 3D model of a small scale contemporary building with the objective to produce industry standard orthographic drawn data.
- 2 Apply decision making processes to problem solving in contemporary building design.
- 3 Show the adoption of 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.
- 5 Develop an understanding of the role of an Architectural Technologist and practice the professional and communication skills required in the profession.

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. 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. Presentations will be used to discuss work completed to staff typically in a Poster format or digitally.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	110	N/A
Non-Contact Hours	190	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, 5
Description:	Project based coursework based submitted as a poster with portfolio comprising graphic content, physical and CAD models, utilising aspects of BIM strategies and collaboration and/or physical models.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The overall module grade is based on 100% weighting of (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.
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 Emmitt, S., 2012. Architectural Technology [electronic resource]. Wiley-Blackwell.
- 2 Hamad, M., (2022). Autodesk Revit 2022 Architecture. Mercury Learning and Information.
- 3 Ching, F. (2021) Green Building Illustrated. John Wiley & Sons, 2nd Ed
- 4 Watts, A. (2023) Modern Construction Handbook. Birkhauser.
- 5 Walshaw, E. (2022) Understanding Architectural Details : Residential Architecture, 4th Ed