

MODULE DESCRIPTOR

Module Title

Daylight and Sunlight

Reference	AC5008	Version	3
Created	July 2021	SCQF Level	SCQF 10
Approved	August 2009	SCQF Points	15
Amended	September 2021	ECTS Points	7.5

Aims of Module

To provide the student with the ability to critically evaluate and use sophisticated and integrative methods and tools in daylight/ sunlight design of buildings. To develop an in-depth understanding of the psychological and perceptual issues of daylight and sunlight impacting on the comfort and well-being of building occupants.

Learning Outcomes for Module

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

- 1 Develop an in depth understanding of the impact of sunlight / daylight on the design of building form.
- 2 Design appropriate sunlighting/ daylighting systems and integrate in an architectural project using the appropriate tools.
- 3 Conduct an evaluation of the design project to set targets, demonstrate awareness of the effects of climate change in relation to the use of renewable natural resources in the built environment.

Indicative Module Content

The module provides practical guidance on the design of daylighting systems, assessment of the impact of sunlight on comfort and well being, the perception of space, building form and the wider design issues relating to the impact of climate change and use of natural resources.

Module Delivery

This is a workshop/tutorial based module. It is a continuation of the studio design project. Students will develop daylighting strategies and applications using the appropriate tools and integrate them in their design projects. Student led seminars will be used to discuss the psychological, perceptual and environmental impact of daylight and sunlight on building design. Students are advised by staff on sources of information, appropriate tools and receive assistance in the interpretation and application of the information they collect. A substantial part of the module is devoted to studio-based student centred and library-based research.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	34	N/A
Non-Contact Hours	116	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:	100%	Outcomes Assessed:	1, 2, 3
Description:	A design project.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The overall module grade is based on 100% weighting of Component 1 (Design Project). 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.

INDICATIVE BIBLIOGRAPHY

- 1 Szokolay, S V., Introduction to Architectural Science: the Basis of Sustainable Design, Architectural Press, 2004.
- 2 Nicholls, R., The Green Building Bible, Vols 1 & 2, Green Building Press, 2006.
- 3 Sue Roaf et al, Adapting Buildings and Cities for Climate changes, Architectural press, 2005.
- 4 T. Muneer, Solar Radiation & Daylight Models for the Energy Efficient Design of Buildings, Architectural press, 1997.
- 5 Thomas, R., (ed), Environmental Design, 3rd ed Spon, 2006