Module Title **Daylight And Sunlight** **Keywords** Daylight, Sunlight, Architectural Design, Thermal Comfort, Visual Comfort, Energy Efficiency, Design Tools, Integration	Reference AC5008 SCQF SCQF Level 10 SCQF Points 15 ECTS Points 7.5 Created May 2009 Approved August 2009 Amended Version No. 1

This Version is No Longer Current

The latest version of this module is available here

Prerequisites for Module

None.

Corequisite Modules

None.

Precluded Modules

None.

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

Mode of 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.

Assessment Plan

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.

Indicative Student Workload

	Learning Outcomes Assessed
Component 1	1,2,3

Component 1: Learning outcomes 1, 2 and 3 will be assessed by a design project.

Indicative Bibliography

1. Szokolay, S V., Introduction to Architectural Science: the Basis of Sustinable 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

Contact Hours	Full Time
Assessment	10
Lectures	6
Seminars / Workshops	18
Directed Study	
Directed Study	60
Private Study	
Private Study	56