Module Title **Advanced Building Technology** **Keywords** Design rationale, Technological Integration, Analysis, Detail Design Strategies, Processes, Assembly, Buildability	Reference AC5002 SCQF SCQF Level 10 SCQF Points 15 ECTS Points 7.5 Created August 2002 Approved August 2008 AmendedJuly 2007 Version No. 1

This Version is No Longer Current

The latest version of this module is available here

Prerequisites for Module

ARB/RIBA Part 1 Exemption or equivalent.

Corequisite Modules

None.

Precluded Modules

None.

Aims of Module

To develop, devise and apply integrated strategies for structure, construction and environment performance of complex buildings.

Learning Outcomes for Module

On completion of this module,

Mode of Delivery

This is a lecture based module, with accompanying tutorials / seminars at which students will be expected to formally contribute. Students will be expected to undertake self-directed study to augment taught material.

Assessment Plan

	Learning Outcomes Assessed
Component 1	1,2,3

Component 1: The student?s ability to analyse, evaluate, and rationally present technological strategies will be assessed by coursework.

Indicative Bibliography

students are expected to be able to:

1. Develop the visual, thermal and acoustic environmental requirements for a complex building.
2. Devise environmental, structural and constructional strategies for a complex building.
3. Apply and integrate the environmental, structural and constructional strategies into the design of a complex building.

Indicative Module Content

This module explores theories, choices, applications and integration of low energy ventilation, heating, cooling, lighting and structural solutions including specialised systems, where appropriate. Processes of designing details, assemblies, buildability and performance issues are explored together with the relevant regulatory requirements (e.g. fire, access etc).
The concept of Buildings as integrated systems is emphasised.

Indicative Student Workload

Contact Hours Full Time

1. Bachman, L R., 2003, Integrated buildings: the systems basis of architecture, New Jersey, Wiley.
2. Bean, R., 2004, Lighting: Interior and Exterior, Oxford: Architectural Press.
3. Browne, M Neil, 1991, Asking the right questions : a guide to critical thinking, Prentice-Hall.
4. Deplazes, A., (ed), 2005 Constructing Architecture, Basel, Birkhauser.
5. Ferguson, I., 1989, Buildability in Practice, London, Mitchell Publishing.
6. Holgate, A. (1997), The art of structural engineering: the work of Jorg Schlaich and his team, Stuttgart, Edition Axel Menges.
7. Templeton, D., (ed), 1997, Acoustics in the built environment: advice for the Design Team, 2nd ed. Oxford: Architectural Press.
8. MacDonald, A. J., 2000, Structure and Architecture, 2nd ed. Oxford: Architectural Press.

Additional Notes

The module may involve visits to construction sites and completed buildings. These will be dependent on arrangements with contractors, the existence of appropriate insurance cover and satisfaction of relevant Health and Safety regulations.

Assessment	15
Lectures	12
Tutorials / studio	36
Directed Study	
Directed Study	40
Private Study	
Private Study	47