Module Title:	Sustainable Building design
Module Code:	BSCS03I
Level:	5
Credits:	15
Pre-requisites:	CONSTRUCTION AND MATERIALS TECHNOLOGY; DEVELOPMENT OF THE BUILT ENVIRONMENT; BUSINESS ENVIRONMENT

Module Description:
This module is designed to develop the students' understanding of contemporary topics and practices related to the built environment. Areas for development will include functional requirements, design of buildings, resource availability, technological change and development, social, political and cultural issues.

Indicative Content:

- Technological change and development: consideration beyond existing practices and traditional roles, factors influencing change, research and development.
- Society, technology interface: relationship of need of society and technological means of satisfying them, cultural issues
- Design factors and functional requirements: functional efficiency, performance standards, and health and safety aspects of building users, economic and legal aspects, environmental impact,
- Resource availability: best value from resources available, energy conservation and resource depletion, environmental sustainability and development.
- User values: value as seen by clients, designers, contractors and the public interest.

Learning and Teaching Methods:
The module will be delivered through lectures, case studies, site visits, in order to integrate theoretical and practical studies. Case studies will seek to develop knowledge and practices applied to the construction industry. Emphasis will be given with respect to the health and safety needs of building users in terms of working spaces and internal circulation. External practitioners and guest speakers will be used to enhance the teaching and learning process. Students will be encouraged to contribute with 'real' examples relating to the syllabus topics.

Specific Learning Resources:

None

Bibliography

Highly Recommended

Anderson, J. Shiers, D. and Steele, K. (2009) The Green Guide to Specification 4th Edition Oxford: Blackwell Science

Recommended

Broome, J. (2007) The Green Self-build Book: How to Design and Build Your Own Eco-home Totnes: Green Books Ltd

Tunstall, G. (2006) Managing the Building Process 2nd Edition Oxford: Butterworth Heinemann

Berge, B. (2009) The Ecology of Building Materials 2nd Edition Oxford: Architectural Press

Ableу, J. and Woudhuysen, J. (2004) Why is Construction so Backward? Chichester: Wiley-Academy

Brandon P.S. and Lombardi P. (2005) Evaluating Sustainable Development: In the Built Environment Oxford: Blackwell Science

Beggs, C. (2009) Energy Management: Supply and Conservation Oxford: Butterworth- Heinemann

Boussabaine, A. and Kirkham, R. (2004) Whole Life Cycle Costing: Risk and Risk Responses Abington: Blackwell Publishing Ltd

Background Reading

Graham P (2004) Construction in Action: 50 Practical Examples Oxford: Blackwell Science

Dean Y (1996) Materials Technology: Mitchell's Building Series Harlow: Addison Wesley Longman

Module Learning Outcomes

Subject Specific Learning Outcomes

On successful completion of this module you will be able to:

LO 1	Evaluate the appropriateness of renewable technologies available to the construction industry.
LO 2	Appraise design decisions in terms of environmental, sustainability resource availability, materials used and feasibility for construction.
LO 3	Investigate the factors influencing technological change.
LO 4	Compare construction methods and alternatives available related to new build design and retrofitting.

Assessment Title or element	Weighting (%)
Report (3000 words)	100%

Information correct at point of publication.