MODULE DESCRIPTOR

Module Title

Innovative Strategies: Design and Process

Reference	ACM105	Version	2
Created	August 2021	SCQF Level	SCQF 11
Approved	May 2019	SCQF Points	45
Amended	September 2021	ECTS Points	22.5

Aims of Module

To develop a critical understanding of current theoretical positions and concepts relating to areas of strategic importance to the contemporary built environment. To understand the correlation between theoretical areas concerning the design and enabling processes, and to develop an ability to apply thinking in an integrated manner.

Learning Outcomes for Module

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

1	Critically appraise and integrate environmental design parameters and principles in a selected design project by using environmental design theory, and simulation tools to reduce environmental impact.
2	Critically appraise local and global approaches to future city design through multi-sectoral approaches, including a range of innovative spatial, locational, built, and natural strategies and interfaces, applied to achieve healthy and sustainable cities.
3	Critically evaluate within a problem solving environment the project administrative life cycle requirements and the selection of planning, monitoring, and control strategies and their significance in bringing projects to successful completion.
4	Evaluate the determinants, generators and constraints impinging on the design process and are central to its effective delivery.

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Indicative Module Content

This module introduces four key thematic areas and appraises and discusses these in relation to one another, and from a cross-disciplinary perspective, through a range of case studies. Low Energy Design Strategies content to include: Climatic opportunities and challenges; Codes and Standards for low carbon design typologies (housing; Passive and active systems and strategies for heating, cooling, ventilation, and lighting; Lightweight and heavyweight construction; Materials, thermal bridging, air tightness, construction; Life cycle analysis; Certification and post-occupancy studies Future Cities content to include: Strategic methods for sustaining Future Cities as cultural hubs; policy frameworks and strategies for healthy cities for al; barriers to healthy and resilient city design; and spatial planning and innovative urban design approaches to future challenges in cities. Building Information Modelling content to include: BIM at the conceptual design stage; cross-discipline collaborative design; BIM during the construction stages, shared BIM models; BIM protocol, smart data workflows, building data storage and accessibility. Project management content to include: Introduction, review, overview; systems theory and concepts; project conflict and negotiation; project budgeting and cost estimation; project scheduling; resource allocation; project control.

Module Delivery

The module will be delivered through face to face lectures supported by online material and additional directed readings. Ideas will be explored in an applied, cross-disciplinary setting through research and analysis of selected case studies. Lecture content will be augmented by workshops and seminars with cross-disciplinary staff representation across all thematic areas. Of the contact hours below, 120 hours relate to staff contact, whilst the remaining 160 hours relates to directed study.

Indicative Student Workload	Full Time	Part Time
Contact Hours	210	N/A
Non-Contact Hours	240	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	450	N/A
Actual Placement hours for professional, statutory or regulatory body		

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
Description:	A coursework in the form of a report/portfolio based on research/analysis of a project or case studies followed by a linked individual research/analysis in an area of personal choice relating to the four thematic areas. Particular emphasis may be applied to any one area. Peer assessment will be used.				

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MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The overall module grade is based on 100% weighting of Component 1 (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	A degree in an architecturally related discipline or in an allied design-based subject.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1	Stephen Read, Jurgen Rosemann, Job van Eldijk (2012), Future City, Taylor and Frances.
2	Berge, B., 2009, Ecology of Building Materials; 2nd ed, Architectural Press
3	Journals, to include 'Design Studies', 'ITCon', Automation in Construction', professional journals, including those from the RICS, RIBA and CIAT.
4	Mantel, S et al 2001 Project Management in Practice, John Wiley & Sons, INC
5	Meredith, J and Mantel S 2001 Project Management A Managerial Approach, 4th Edition John Wiley & Sons, INC
6	Lehmann, Steffen (2014) Low Carbon Cities: Transforming Urban Systems. London, Routledge.