

Summary Information

Module Code	5503ICBTBS
Formal Module Title	Sustainable Built Environment
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	15
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
International College of Business and Technology

Learning Methods

Learning Method Type	Hours
Lecture	45
Off Site	6
Tutorial	15

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	Aim(s) of the module is to develop an inter-disciplinary platform for the dissemination of knowledge and practice on the engineering and technical issues concerning all aspects of building design, technology, energy and environmental performance.
------	--

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Recognise the key principles of sustainable built environment and of sustainability.
MLO2	2	Explain the concepts of planning, designing and management of aspects related to sustainable built environments in line with low carbon footprint scenario.
MLO3	3	Describe the advantages of employing sustainable built environment design concepts.
MLO4	4	Describe the practical implications of sustainable built environment design concepts.

Module Content

Outline Syllabus	Introduction Role of Building Services Engineer, Concepts of integrated design in modern building construction, Importance of life cycle analysis, Principles of Green Buildings Site Considerations Neighbourhood design considerations, Selection of sites respect to context, Green/Brown field consideration, Soil erosion aspects, Heat island effect, Outdoor light pollution, Access to mass transit Water efficiency Rain water harvesting, Efficient appliances: Water treatment, Sewer & waste water treatment, Waste water recirculation, Water resources Management Energy efficiency Passive concepts, Building envelop, Efficient appliances - for HVAC, lighting, Power supply, Waterheating, Auxiliaries, Overall energy use, Onsite energy generation Building materials Low emissions, Low embedded energy, Recycle and reuse, Solid waste disposal, Incineration, Compost yards, Waste material management Indoor Environment Thermal and visual comfort, Indoor air quality, Outdoor connectivity, Daylight use • Sustainable building design concepts, strategies and technologies • Smart building concept
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Dissertation	Assignment	30	0	MLO1
Exam	Examination	70	2	MLO2, MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------

Alison Cotgrave	Yes	N/A
-----------------	-----	-----

Partner Module Team

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------