

Liverpool John Moores University

Title: TECHNOLOGY & PRACTICE (1)
Status: Definitive
Code: **4043AR** (109660)
Version Start Date: 01-08-2011

Owning School/Faculty: Liverpool School of Art & Design
Teaching School/Faculty: Liverpool School of Art & Design

Team	Leader
Clare Wrigley	Y

Academic Level: FHEQ4
Credit Value: 12.00
Total Delivered Hours: 50.00
Total Learning Hours: 120
Private Study: 70

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	34.000
Seminar	8.000
Tutorial	8.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	by submission of coursework	100.0	

Aims

To introduce the student to the practical business of building high quality architecture.

To provide an introduction to the main constructional systems widely used for domestic buildings in the UK. A basic understanding of the relevant issues relating to fire resistance, waterproofing, thermal movement and methods of construction/assembly.

To introduce students to the fundamental principles governing the behaviour of various structural systems and techniques used throughout history and their

contemporary counterparts.

To give the students a brief introduction to the principles and assumptions founding the science of structural mechanics.

Learning Outcomes

After completing the module the student should be able to:

- 1 Be familiar with the basics of structural stability, maintenance and building practice.
- 2 Understand and analyse those buildings illustrated in the lectures.
- 3 Appreciate innovatory technical thinking in architecture.
- 4 Demonstrate a basic understanding of the structural and environmental issues faced by the architect and engineer in the design of major building types, both historically and today.
- 5 Understand the main constructional systems widely for domestic buildings used in the UK.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

ESSAY	1	2	3	4	5
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Outline Syllabus

Eight lectures illustrating the building technology and practical construction aspects of 12 buildings from the primitive hut through to contemporary examples.

Twenty environmental science lectures introducing basic concepts in the design of heating and lighting systems for buildings.

Ten construction lectures introducing the main constructional systems widely for domestic buildings used in the UK.

Four half days (4 hour) seminar workshops constituting a hands-on physical exploration of the knowledge gained in the first semester through the production physical models exploring ways in which structural stability may be achieved in load-bearing and framed structures.

Learning Activities

COURSEWORK: Lectures, Seminars and Tutorials.

Coursework addresses all learning outcomes via a timed construction drawing test and submission of project work.

References

Course Material	Book
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Author	GORDON, J.E.
Publishing Year	1991
Title	Structures : or why things don't fall down
Subtitle	
Edition	
Publisher	London : Penguin
ISBN	

Course Material	Book
Author	COWAN, H.J.
Publishing Year	1977
Title	Historical Outline Of Architectural Science
Subtitle	
Edition	
Publisher	Applied Science
ISBN	

Course Material	Book
Author	COWAN, H.J.
Publishing Year	1977
Title	Master Builders : History Of Structural And Environmental Design From Ancient Egypt To The Nineteenth Century
Subtitle	
Edition	
Publisher	Wiley
ISBN	

Course Material	Book
Author	GIVONI, B
Publishing Year	1976
Title	Man, climate and architecture
Subtitle	
Edition	
Publisher	Van Nostrand Reinhold
ISBN	

Course Material	Book
Author	EUROPEAN COMMISSION
Publishing Year	1998
Title	Solar energy in architecture and urban planning
Subtitle	
Edition	
Publisher	Prestel
ISBN	

Course Material	Book
Author	SZOKOLAY, S.V.

Publishing Year	1980
Title	Environmental science handbook for architects and builders
Subtitle	
Edition	
Publisher	Construction Press
ISBN	

Course Material	Book
Author	OSBOURN, D.
Publishing Year	1999
Title	Mitchell's Building Series; Introduction to Building
Subtitle	
Edition	
Publisher	Longman
ISBN	

Notes

10 lectures, each divided into four 45-minute segments, introduce the technical and practice-based issues of achieving building stability, durability and environmental control. The module also uses 12 selected buildings and their contexts in a further eight 90 minute lectures to offer students an historic grounding in the practical business of building high quality architecture as seen from the viewpoint of the architect, structural engineer and environmental engineer.