

Liverpool John Moores University

Title: TECHNOLOGY AND PRACTICE (3)
Status: Definitive
Code: **5043AR** (109675)
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: FHEQ5
Credit Value: 12.00
Total Delivered Hours: 40.00
Total Learning Hours: 120
Private Study: 80

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	28.000
Tutorial	12.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	by submission of a technology report & construction drawing test.	100.0	

Aims

To investigate the structural Technology, energy strategy and materials performance related to the workplace project theme.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate a basic knowledge of innovative methods of constructing larger scale buildings in the UK and abroad.
- 2 Understand the structural processes taking place within the spanning elements of a building.
- 3 Demonstrate an understanding of the energy control problems and their solutions for the workplace building type.
- 4 Know how to design the structure and enclosing skin appropriate to an urban workplace building.
- 5 Demonstrate a knowledge of appropriate materials and their behaviour.

Learning Outcomes of Assessments

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

ESSAY 1 2 3 4 5

Outline Syllabus

20 lectures on the technology of workplace environmental design; control of lighting, the use and control of mechanical systems for heating and ventilation, together with energy management and conservation.

2 lectures introducing the basic structural mechanics theory for systems capable of spanning long distances.

6 lectures introducing more innovative methods of constructing larger scale buildings in the UK and abroad providing a basic understanding of the relevant issues relating to fire resistance, waterproofing, thermal movement and methods of construction/assembly.

Preparation of an illustrated technology report relating to the students concurrent design module.

Learning Activities

Lectures and Tutorials.

Coursework addresses all learning outcomes and is assessed by a timed construction drawing test (2 hours) and submission of a technology report.

References

Course Material	Book
Author	BROOKES, A.
Publishing Year	1998
Title	Cladding of buildings
Subtitle	
Edition	
Publisher	Routledge

ISBN	
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Course Material	Book
Author	BURBERRY, P.
Publishing Year	1997
Title	Environment and services
Subtitle	
Edition	
Publisher	Longman
ISBN	

Course Material	Book
Author	HOLGATE, A.
Publishing Year	1997
Title	The art of structural engineering: the work of Jorg Schlaich and his team
Subtitle	
Edition	Edition Axel Menges
Publisher	Stuttgart; London:
ISBN	

Course Material	Book
Author	BANHAM, R.
Publishing Year	1984
Title	The architecture of the well-tempered environment
Subtitle	
Edition	
Publisher	London: Architectural
ISBN	

Course Material	Book
Author	HAYERSTOCK, H.
Publishing Year	1987
Title	The building design easibrief: a concise reference book for building designers
Subtitle	
Edition	
Publisher	Building Design EasiBrief
ISBN	

Course Material	Book
Author	HOPKINSON, R.G.
Publishing Year	1972
Title	The lighting of buildings
Subtitle	
Edition	
Publisher	Faber

ISBN	
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Course Material	Book
Author	GAULD, BRYAN J.B
Publishing Year	1984
Title	Structures for architects
Subtitle	
Edition	
Publisher	London: Godwin
ISBN	

Notes

This module will deal with the technical realisation of buildings through analysis, architectural design, detailing and the study of site construction and supervision. It will relate directly to the content of concurrent design project modules and this to be integrated with them. Assessment will be carried out by means of an illustrated technology report relating to the students concurrent design module.