

Liverpool John Moores University

Title: Technology & Practice 1
Status: Definitive
Code: **4050AR** (117589)
Version Start Date: 01-08-2016

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

Team	Leader
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Academic Level: FHEQ4 **Credit Value:** 24 **Total Delivered Hours:** 85
Total Learning Hours: 240 **Private Study:** 155

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	47
Practical	16
Tutorial	2
Workshop	20

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Materials Case Studies	20	
Report	AS2	Environmental case studies	20	
Artefacts	AS4	Construction Project and Test	25	
Self Awareness Statement	AS5	World of Work Bronze Statement	10	
Report	AS3	Report Analysing Element of Design Project	25	

Aims

To present to students for assimilation and discussion, through simple verbal and illustrative material, the significance of technical ideas in the process of architectural design from commencement to realisation, as it has existed historically as well as recent buildings of note. Accent is placed on innovatory thinking and on the present technical and practical horizons possible within the profession of architecture viewed internationally. The module will give students grounding in the challenges of building high quality architecture.

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 Demonstrate knowledge of the formative effects of technology and practice on architectural design related to Level One design projects.
- 6 Demonstrate knowledge of the most widely used methods of frame construction for domestic scale and larger buildings in the UK.
- 7 Produce a piece of considered design coursework where the appropriate technological considerations have been considered by the student in depth under the guidance of design and technology tutors.
- 8 To identify and reflect upon the following aspects of personal development: strengths and weaknesses, motivations and values, ability to work with others.

Learning Outcomes of Assessments

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

AS1 Report	2	3	4
AS2 Report	3	4	
AS4 Artefact	1	6	7
AS5 WoW Bronze	8		
AS3 Report	5	7	

Outline Syllabus

A series of case studies of historically important buildings or building typologies illustrating key advances in building technology. Each case study is placed firmly

within its political, social and cultural context. The lectures are also intended to aid the technical 'realisation' of work being produced in the design studio.

A course of illustrated lectures which deals with the basics of acting as an architect and the basics of making buildings stand up and last. Each building used in the lectures will be analysed and accent placed on innovatory thinking and on the technical and practical horizons at work within the profession of architecture as evidenced in these constructions. A number of lectures are also presented by the design staff illustrating the story of one of their own building projects taking the students through its conception, detailed design and construction phases.

A further lecture series introduces basic concepts and practices in the sustainable environmental design of buildings. An introduction to the basics of building physics and the exploration of environmental elements that influence design development leading to lectures exploring more detailed sustainable environmental design issues relating to heating, lighting and ventilation options and systems.

The module also incorporates a sequence of 'construction' lectures introducing the main constructional systems widely used for domestic buildings in the UK. This course is the first in a series delivered over three semesters dealing with the 'making' of architecture.

The construction course is structured according to the 'Common Arrangement', to allow a smooth progression into practice in the fourth 'year out'.

A series of CAD Workshops give students the key IT skills needed to communicate effectively in a design environment, such as information gathering, image organisation and manipulation in the context of design. During this year students are also introduced to the principles of 2d and 3d design in an IT rich environment.

Learning Activities

Lectures, four half-day seminar/workshops and regular CAD workshops across two semesters.

In second semester the seminar/workshops will constitute a hands-on physical exploration of the knowledge gained in the first and second semesters through the production of environmental studies relating directly to the design Module 4049AR.

Notes

The module will give the students a grounding in the challenges of building high quality architecture and begins to make connections between the technical and the design aspects of architecture.