

Liverpool John Moores University

Title: Technology & Practice 1
Status: Definitive
Code: **4131AR** (123452)
Version Start Date: 01-08-2021

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

Team	Leader
Simon Tucker	Y
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Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 48
Total Learning Hours: 200 **Private Study:** 152

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	24
Workshop	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Design project technical report: Structure and fabric.	50	
Report	AS2	Design project technical report: Lighting.	50	

Aims

This module aims to introduce the role of technology in the process of architectural design from commencement to realisation, as it has existed historically as well as in 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 Investigate alternative structural, constructional and material strategies in the context of their building project.
- 2 Apply and evaluate principles associated with designing optimum internal environments in the context of their building project.

Learning Outcomes of Assessments

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

Report 1	1
Report 2	2

Outline Syllabus

Case studies of historically important buildings or building typologies illustrating key advances in building technology are presented. Each case study is placed 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 is given which introduces the role of the architect and the making of long-lasting buildings. Each building used in the lectures is 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.

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 and environmental design of buildings. An introduction to building physics and the exploration of environmental elements that influence design development leads into lectures exploring more detailed sustainable and environmental design issues relating to heating, lighting, ventilation and associated systems.

The module also includes lectures on construction including the main constructional systems widely used for domestic buildings in the UK. 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 and regular CAD workshops support learning.

The assessment tasks of this module relate directly to design work undertaken in

module 4124AR.

Notes

The module will give the student a grounding in the challenges of building high quality architecture and begins to make connections between the technical and the design aspects of architecture. There are two assignments for this module: an investigation and report on technical aspects of the current design project, one on the lighting of the building and one on its structure and construction. The module provides a sound theoretical and practical foundation to build on during Years 2 and 3.