Module Specification

Technology and Design Studio 2

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Contents

Part 1: Information

Module title: Technology and Design Studio 2

Module code: UBLMGG-30-2

Level: Level 5

For implementation from: 2023-24

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Environment & Technology

Department: FET Dept of Architecture & Built Environ

Partner institutions: None

Delivery locations: Frenchay Campus

Field: Architecture and the Built Environment

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: This module aims to apply the theories and concepts studied in Level 1. To enable the student to provide design solutions to specific problems, a consolidating of the work on technology, structures, materials and building physics will be integrated and related to functional design. It provides analysis, synthesis and technical evaluation at differing scales of building design.

Features: Not applicable

Educational aims: In addition to the Leaning Outcomes the educational experience may explore, develop, and practise but not formally discretely assess the following:

Working as a member of a group and meeting obligations to others within the module cohort.

The use of learning resources in support of studio practice, including building Regulation Guidance and, in particular, research methods to support project development.

Professional habits of work, time-keeping and punctuality.

Outline syllabus: The work in this Module is project-based and the following examples are indicative of typical projects that the student would be expected to undertake:

A mix of traditional and computer aided design methods would be an integral aspect of any project.

A small introductory project to study aspects of fabric, components and finishes.

A design project in response to client needs including aspects of reuse refurbishment and ergonomics.

A research project into current environmental and sustainable design, including health and safety legislation.

An integrating project to develop functional aspects in the design of interior space and provide an environment for a good human experience.

To develop in each design studio project; a concept, scheme development, analysis and detail design up to working drawings.

To understand how specific regulations play a defining role in shaping design projects.

Technology Syllabus

Technology and Design Studio 2 introduces the principles of contemporary 'frame-structured' construction as these are employed in a non-domestic medium-to-large scale of building. This technology is discussed with reference to the thematic questions and traditional construction introduced at Level 1. These key questions and associated syllabus elements are as follows:

Structural Principles and the sizing of structural elements used in contemporary technology using framed structures.

Material Properties of contemporary building materials (concrete, plastic composites, steel, for example)

Environmental Comfort in domestic and non-domestic environments.

Building Physics and thermal performance in domestic and non-domestic buildings.

Construction Detailing using contemporary materials.

Poetics and Problem-Solving – integration of contemporary building technology with architectural ideas.

Assembly, Maintenance and Safety – current construction processes, comparative analysis of procurement routes and assessment of health and safety.

Data and Research – methods of predicting building performance; and fire escape in non-domestic buildings.

Ethics and Value – the financial measurement of building construction, development for profit and the ethical role of the construction professional.

The Portfolio will also include further in-depth explanation of the student's projects technical strategies and detail designs demonstrating their learning of this technical syllabus. This will include:

General Arrangement Drawings – demonstrating the organisation of structure and construction envelope for a frame-structured building of three or more storeys; including service runs, fire strategy and environmental strategy.

The design and explanation of Building Elements – in detail model and detail drawing that demonstrates how construction detailing has informed an architectural idea; and how it conforms to necessary regulations.

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled learning
As detailed above the strategy for the module is to provide the students with an integrated understanding of architectural design and construction technology delivered as a studio-based and problem-centred learning experience. To further develop the concepts and theories of construction, whilst developing an attitude towards sustainable and environmental design using project briefs as a vehicle for this output. This will be achieved through the following methods:

Lectures, seminars, small group tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; supervised time in studio/workshop.

Independent learning
In order to fulfil the requirements of the module a certain amount of independent learning is required. This time is used to support the taught contact sessions and in preparation of the technical assessment. This will be achieved through the following methods: hours engaged with essential reading, verbal and visual presentation preparation, portfolio preparation and completion etc.

This module will be delivered as follows:

132 hours directed contact time that includes lecture based sessions, workshop sessions, small-group design seminars offering specific tutorial support on project work, and skills workshops led by technical support staff.

118 hours are scheduled for the assimilation and development of knowledge through coursework preparation in the form of design projects, including self-directed learning within a timetabled Design Studio space.

A final 50 hours are scheduled for final preparation of the portfolio assessment through informal reviews.

Total 300 hours

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Generate professional-standard communications related to fabric, components and finishes

MO2 Prepare designs in response to a well defined brief focussing on sustainable design and environmental impact

MO3 Investigate, analyse and develop detailed design solutions

MO4 Apply relevant regulations to design projects

MO5 Understand the principle of elemental costing

MO6 Understand and demonstrate the principles of information and communication technologies and desktop publishing to design, process and communicate integrated text, images and illustrations in multimedia sequences, reports and documents

MO7 Reproduce knowledge of contemporary (frame-structured) construction technologies and combine principles and detail of this technology with design decision-making in the design of a general arrangement layout for the fabric, services and structure of a non-domestic building typology of three or more storeys

MO8 Apply knowledge of contemporary construction techniques such that technical strategies and materials are selected in the detailed design of an architectural component that is refined to convey a declared architectural intention

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 118 hours

Face-to-face learning = 132 hours

Total = 300

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ublmgg-30-2.html

Part 4: Assessment

Assessment strategy: Formative review and assessment occurs at the conclusion of each of the design projects taken during the year. Each project may differently emphasise an aspect of the learning outcomes identified for the module and this particular emphasis is expressed to the student as part of the project brief. The formative review is seen as a way to feedback students the improvements needed to complete the portfolio.

Portfolio - 100% of the module mark is awarded for the Portfolio submitted at the formal assessment point for the module. The Design Portfolio, is formally understood by professional validating bodies as the vehicle suitable for the assessment of an architectural technology student and, as such is the assessment vehicle identified for this module.

Resit Portfolio - a similar brief to that described above, which may include some topic changes.

Assessment components:

Portfolio (First Sit)

Description: Portfolio

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7, MO8

Portfolio (Resit)

Description: Portfolio

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7, MO8

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Architectural Technology and Design [Frenchay] BSc (Hons) 2022-23

Architectural Technology and Design [Sep][FT][Frenchay][3yrs] BSc (Hons) 2022-23

Architectural Technology and Design [Sep][SW][Frenchay][4yrs] BSc (Hons) 2022-23

Architectural Technology and Design [Sep][PT][Frenchay][5yrs] BSc (Hons) 2021-22

Architectural Technology and Design {Foundation} [Feb][FT][GCET][4yrs] BSc (Hons) 2021-22

Architectural Technology and Design {Foundation} [Oct][FT][GCET][4yrs] BSc (Hons) 2021-22

Architectural Technology and Design {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22

Architectural Technology and Design {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2021-22