Architectural Design Thesis

Module Descriptor

Module Code:	PRJ6DES
Version:	1.00
Status:	Final
Date:	28/02/2024

Summary Module Details

Module details

Module Title: Architectural Design Thesis

Module Leader: Marc Fleming

Module Mode: Supported online learning

Semester: Autumn (UK) and Spring (UK)

Level: 6

Credits: 20

Learning Hours: 200

Contact & Study Hours:

Directed Study Time: 60 hrs (30%)

Self-directed Study Time: 70 hrs (35%)

Assessment Study Time: 70 hrs (35%)

Assessment Type:

Coursework: 0%

Computer Based Assessment: 0%

Portfolio: 50%

Presentation: 0%

Project: 0%

Practical: 0%

Self-directed Research: 50%

Module Summary

The aim of this module is to enable the student to develop independent design-based research skills so that they can demonstrate the ability to convert theoretical concepts to propose a holistic or localised design solution against the backdrop of a defined physical, cultural, social, or economic project context.

The module is student-led, with directed research undertaken in virtual studios where students will define a brief from a specific context of their own choosing. Students will be allocated a supervisor to consult with and showcase proposals as their research project evolves.

It is anticipated that the module's outcomes will directly enhance career and educational progression by equipping students with relevant analytic and design thinking skills, including techniques to execute the investigation of contemporary design issues.

Taken on which Programmes

BSc (Hons) Architectural Design Technology (C)

Core (C) or Elective (E)

Module Aims

This module aims to:

- Aid students to apply their skills and knowledge gained whilst on the course to the investigation of an industry-based problem or to address a specific industry-based issue.
- Encourage students to use time, space, and resources, for reflective thinking concerning their studies and their professional and educational development.
- Encourage students to acquire new and relevant analytical skills and techniques; and
- Further develop specific technical knowledge and research skills.

Module Learning Outcomes

LO1. Understand and select appropriate research methodologies to identify and propose a solution to a design problem.

LO2. Critically appraise a design problem and demonstrate a methodological approach to developing concepts, arguments, assumptions, and opinion; to make reasoned judgements.

LO3. Critically appraise the solution in relation to the initial design problem and how theoretical concepts have been applied.

LO4. Communicate outputs to a professional standard by using a range of media.

Indicative Module Content

Module topics

- **Project management**

  Aims, objectives and techniques, assessment.

- **Project topic**

  Sources of inspiration, past titles, and approaches.

- **Literature review**

  Rationale

- **Data sources for construction, real estate management etc.**

  Librarian role, hard and soft data, critical reading, and appraisal.

- **What is research?**

  Approaches to inquiry, strategy, types (qualitative, quantitative).

- **Project document**

  Structuring and writing the project proposal.

- **Architectural appraisal**

  Technology driven site and building /component analysis analysis, building technology evaluation, BIM integration, cost estimation tools,

- **Prototyping**

  This could involve a broad range from the following, depending on the context of the students choosing:

  - **Conceptualisation**:

    Generating and refining design ideas and concepts based on project requirements and objectives.

  - **Modelling:**

    Creating physical or digital models to visualise and test design concepts in three dimensions.

  - **Material Exploration:**

    Experimenting with different materials to understand their properties and how they contribute to the design.

  - **Models:**

    Building physical or CAD models to represent the proposed architectural design and its spatial relationships.

  - **3D Printing:**

    Using 3D printing technology to create detailed and accurate prototypes of architectural elements.

  - **Mock-ups:**

    Constructing full-scale or partial mock-ups of specific building components to assess their functionality and aesthetics.

  - **Digital Prototyping:**

    Employing Building Information Modelling (BIM) or other digital tools to create virtual prototypes for detailed analysis.

  - **User Testing:**

    Involving end-users in the testing process to gather feedback on the design's usability and user experience.

  - **Iterative Refinement:**

    Iterating on prototypes based on feedback, making adjustments to improve design aspects or address identified issues.

  - **Structural Testing:**

    Assessing the structural integrity of architectural elements through prototype testing.

  - **Lighting and Acoustic Testing:**

    Evaluating the impact of lighting and acoustic elements within the architectural space.

  - **Sustainability Analysis:**

Examining the environmental impact and sustainability aspects of the design through prototyping.

- **Cost Analysis:**

  Assessing the feasibility and cost implications of design elements through the prototyping process.

- **Presentation:**

  Communicating the design intent and findings through visual representations, reports, and presentations.

This content will be reviewed and updated regularly to reflect the legal, ethical, and financial changes in professional standards and practice.

Overview of Summative Assessment

Module learning outcomes	Assessment	Word count or equivalent	Weighting
LO1, LO2, LO3, LO4	**Assessment 1** Portfolio	5,000	100%

Module Pass Mark (as a weighted average of all assessments): 40%

Key Module Learning Resources

Core Sources and Texts

The core reading resources within each module will be provided via the specific Virtual Learning Environment (VLE) module pages and within the e-Library. Additional reference material and supplementary resources to support your studies are available through the UCEM e-Library.

Module tools

Students will also have access to online research support forums, regular online sessions on research methods (recorded for those who cannot attend), dedicated academic skills support and a suite on online resources on undertaking a research project. The module page on the VLE contains a clear schedule of work to support students to plan their time.

Professional online resources

The e-Library provides access to trusted, quality online resources, selected by subject specialists, to support students' study. This includes journals, industry publications, magazines, academic books, and a dissertation/work-based library. For a list of the key industry specific and education resources available please visit the VLE e-Library.

Other relevant resources

Access is also provided to further information sources that include the British Library and Open University UK catalogues, as well as providing a monthly current awareness service

entitled, ***Knowledge Foundations*** - a compendium of news, research and resources relating to the educational sector and the Built Environment.

The module resource list is available on the module VLE page and is updated regularly to ensure materials are relevant and current.