UNIVERSITY of BRADFORD

Module Descriptor

Module Details	
Module Title	Architectural Engineering Design Studio 1
Module Code	CSE4004-B
Academic Year	2023/4
Credits	20
School	Department of Civil and Structural Engineering
FHEQ Level	FHEQ Level 4

Contact Hours	
Type	Hours
Directed Study	140
Lectures	24
Tutorials	6
Supervised time in studio/workshop	30

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Academic Year

Module Aims

Theconceptofbuildingtypeisvitalingainingacomprehensiveunderstandingofthebuilt environment. The module provides an understanding of sustainability and the specific environment of the students? own design project. This studio-based module introduces the student to principles of design, drafting, model making and drawing skills and how to interpret and analyse a brief. Students focus on methodology and approaches relevant to the studio comprehensive design project with a more intensified examination of topics related to architectural engineering.

The module aims to:

Develop the student?s confidence and ability to apply a range of communication methods and media to present design proposals clearly and effectively as well as an ability to evaluate and rework ideas in response to review and feedback.

Enable students to acquire knowledge of surveying, construction and maintenance and understand the significance of material attributes and their influence on the design process.

Orient and critically engage the student in understanding the constructional and structural systems, the environmental strategies and the regulatory requirements that apply to the design and construction of a design project.

Outline Syllabus

The range of communication methods and media to present simple drawings and ultimately, simple design proposals.

Skills, processes and practices involved in a spatial design project.

Surveying, construction and maintenance techniques.

Issues influencing the structure, materials, environmental and construction methods in building design.

Preparing and editing a design portfolio.

A variety of skills-based competencies including design representation skills, presentation skills, working independently and creative thinking.

Undertake a "design, build and test" exercise to enhance students? skills in critical analysis and improve their understanding of the design, and construction process.

Learning Outcomes

Outcome Number	Description
01	Identify the relationship between people and buildings, and between buildings and their environment, and be able to relate design to human needs and scale .
02	Investigate and select alternative structural, constructional and material systems relevant to the architectural design.
03	Explore the structural design, constructional and engineering problems associated with building design.
04	Prepare a portfolio which is edited, organised and clearly labelled so that it can be evaluated in terms of range, depth, creativity and originality as well as standards of accuracy and skills of execution.

Learning, Teaching and Assessment Strategy

The teaching and learning methods have been selected to engage students in developing their knowledge and understanding of architectural engineering through formal learning opportunities such as lectures and tutorials, experiential learning through practical classesin the design studio and informal and social learning through team-working in projects.

Throughout the module, students will be set formative assessment activities that will help develop confidence in sustainable design problems and in the use of the skills, tools and techniques that will support them. The timely constructive feedback from this formative assessment will support students develop the skills and knowledge required for the summative assessment.

This module focuses on two important aspects of learning, on the one hand the integration of structure, materials, and construction methods in architecture and relevant principles and tools, on the other, experiencing how these principles are enacted in building design. The learning and teaching is organised around a series of lectures introducing the basic principles of environmental design, designing with daylight and solar shading. The lectures are supplemented by practical workshops and design tutorials that engage the students through active learning and problem solving.

The module will be summatively assessed through a Coursework method (Design portfolio). Design work is developed in the studio environment according to the programme briefs, through workshops, group and individual tutorials, to continually appraise, evaluate and develop the work. All design work is regularly presented to academics and peers for critical feedback.

If a student requires supplementary assessment for re-assessment, the assessment method will be the same as original.

Mode of Assessment

Type	Method	Description	Weighting
Summative	Coursework - Portfolio/e-portfolio	Design portfolio including presentation - 4000 words equivalent overall	100%

Reading List

To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:
This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.
