

## **Module Specification**

# Principles of Sustainable Design

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## Part 1: Information

Module title: Principles of Sustainable Design

Module code: UBLLWV-30-1

Level: Level 4

For implementation from: 2021-22

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: Standard

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

## Part 2: Description

**Overview:** Not applicable

Features: Not applicable

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

#### Working as a team member

Drawn and verbal presentation skills

#### Advanced CAD/BIM

#### Outline syllabus: Funcamental Principles:

Historic and architectural context

Design theories and aesthetics

- Function, form and style
- Analysis of users requirements, briefing
- Functional appraisal and design
- Structural appraisal and design
- Environmental appraisal and design
- Design methodology
- Management of the design process
- Design guides
- Urban design
- Housing design
- Access for the disabled
- Loading: structural layout and load paths
- Sustainability issues and design principles
- **Professional ethics**

Application:

Drawing and sketching Introduction to CAD and BIM Design and detailing of simple building types Planning applications, design and access statements

## Part 3: Teaching and learning methods

Page 3 of 8 02 September 2021 **Teaching and learning methods:** The first 6-8 weeks is devoted to skills development including lectures, tutorials, practical classes, workshops, site visits etc. to help students engage with what is to follow.

The remainder of the first semester covers theoretical aspects of design to prepare students for summative assessment at the end of the semester, mainly delivered by lectures and tutorials with directed learning.

Teaching in the second semester focuses on the practical application of theoretical issues covered in the first semester using a specific project as the teaching and learning vehicle, comprising a mixture of project workshops and design studios

Scheduled learning includes lectures, seminars, tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; external visits; work based learning; supervised time in studio/workshop.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion etc.

#### Module Learning outcomes:

**MO1** Undertake measured and level surveys and produce drawings by hand and CAD

**MO2** Identify the sustainability and environmental context in which design is undertaken

**MO3** Demonstrate the relationship between external influences on design and the resultant function, form and style of buildings

**MO4** Identify the links between site, structure, environment, sustainability, fabric and the user's requirements

MO5 Elicit a design brief from building users

**MO6** Apply the fundamental BIM principles and concepts of design to a range of simple building types

**MO7** Describe the function of key structural elements in domestic and simple framed construction

**MO8** Undertake detailed design appraisal of selected elements of construction recognising and relating to professional ethics accordingly

#### Hours to be allocated: 300

#### **Contact hours:**

Independent study/self-guided study = 75 hours

Face-to-face learning = 225 hours

Total = 300

**Reading list:** The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link <u>https://uwe.rl.talis.com/modules/ubllwv-</u><u>30-1.html</u>

## Part 4: Assessment

**Assessment strategy:** The assessment strategy seeks to integrate the strands of knowledge and to introduce the students to formal academic writing. There are three distinct sections:

Component A - Relates to development of essential building surveying, measuring, recording and sketching skills and is assessed by summative assessment in the form of a 60 minute individual online assignment.

Component B – Element 1. Is based on the skills explored and examined in the sessions in Semester 1. These build to form a portfolio of work which reflects the development and application of these skills accordingly to typical situations that are faced in practice.

Component B – Element 2. Relates to the project work undertaken in semester 2. Formative assessment will be based on in class critique sessions, where students

Page 5 of 8 02 September 2021 will be required to communicate their design ideas and respond to criticism from staff and peers, to then produce a final portfolio of work to graphically demonstrate their response to the design brief.

#### Assessment components:

#### Online Assignment - Component A (First Sit)

Description: Online assessment - 60 minutes time controlled which covers fundamental areas of the module and building surveying principles such as levelling, measuring, recording and observing. Weighting: 25 % Final assessment: No Group work: No Learning outcomes tested: MO1

## Portfolio - Component B (First Sit)

Description: Skills portfolio Weighting: 30 % Final assessment: No Group work: No Learning outcomes tested: MO2, MO3, MO4

## Portfolio - Component B (First Sit)

Description: Project portfolio Weighting: 45 % Final assessment: Yes Group work: No Learning outcomes tested: MO1, MO5, MO6, MO7, MO8

## **Online Assignment - Component A** (Resit)

Description: Online assessment - 60 minutes time controlled which covers fundamental areas of the module and building surveying principles such as levelling, measuring, recording and observing. Weighting: 25 % Final assessment: No Group work: No Learning outcomes tested: MO1

## Portfolio - Component B (Resit)

Description: Skills portfolio Weighting: 30 % Final assessment: No Group work: No Learning outcomes tested: MO2, MO3, MO4

Portfolio - Component B (Resit) Description: Project portfolio Weighting: 45 % Final assessment: Yes Group work: No Learning outcomes tested: MO1, MO5, MO6, MO7, MO8

## Part 5: Contributes towards

This module contributes towards the following programmes of study: Building Surveying [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22 Building Surveying [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22 Construction Project Management [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22 Construction Project Management [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22 Building Surveying {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2020-21 Building Surveying {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21 Building Surveying [Sep][PT][Frenchay][5yrs] BSc (Hons) 2020-21 Building Surveying {Apprenticeship-UWE} [Sep][FT][Frenchay][5yrs] BSc (Hons) 2020-21

Construction Project Management [Sep][PT][Frenchay][5yrs] BSc (Hons) 2020-21

Construction Project Management {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21

Construction Project Management {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2020-21

Architectural Technology and Design [Sep][PT][Frenchay][5yrs] BSc (Hons) 2020-21

Architectural Technology and Design {Foundation} [Oct][FT][GCET][4yrs] BSc (Hons) 2020-21

Architectural Technology and Design {Foundation} [Feb][FT][GCET][4yrs] BSc (Hons) 2020-21