1. **Title of the module**

QUSU4000 Construction Technology and Processes

1. **School or partner institution which will be responsible for management of the module**

Centre for Higher and Degree Apprenticeships

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 4

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

This module is being taught as part of the BSc (Hons) Quantity Surveying being delivered through a part-time distance learning approach.

1. **Prerequisite and co-requisite modules**

None

1. **The programmes of study to which the module contributes**

BSc (Hons) Quantity Surveying, Certificate of Quantity Surveying.

1. **The intended subject specific learning outcomes.**

On successfully completing the module students will be able to:

1. Demonstrate basic interpretation of the function, organisation, technological strategy and aesthetics of design proposals.    
 2. Demonstrate an awareness of structural principles and construction techniques and apply basic structural mathematical calculations.

3. Analyse the properties and characteristics of structural elements and materials.

4. Analyse the integration of Building Engineering Services into the construction process.

5. Evaluate and analyse the environmental impact of building materials, structural components and technological systems.

1. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to:**
2. Interpret information.
3. Use comparative analysis to inform judgement.
4. Engage in research and analysis information from a range of source material.
5. Employ observation and analytical skills to inform the communication of ideas to an audience.
6. Employ developing numeracy to solve calculations.
7. **A synopsis of the curriculum**

This module introduces the analysis of design proposals and the characteristics, properties and relationship between structural form, technologies, materials and aesthetics. It supports the analysis and comparison of the properties and characteristics of materials and structural elements and the process of construction required to achieve functional and aesthetic outcomes. Introductory mathematical models are introduced that provide insight into the application of engineering within the construction process. The selection of structure and materials is placed within wider aesthetic, ecological and environmental contexts.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Emmitt,S. and Gorse, C.A. (2014).*Barry's Introduction to Construction of Buildings*. Wiley-Blackwell

Chudley, R. and Greeno, R. (2016).*Building Construction Handbook.* Routledge

Virdi, S. S. and Waters, R. (2017) *Construction Science and Materials*. Wiley-Blackwell

Doran, D. and Cather, C. (2013).*Construction Materials Reference Book****.***Routledge

1. **Learning and teaching methods**

The total study time for this module is 150 hours incorporating online e-learning, work-based experience and private study.

Teaching is delivered as a distance learning approach. VLE-delivered E-activities, VLE-delivered work activities serve to reinforce material presented online and also relate directly to the learning objectives. These are specifically based on enabling students to relate their theoretical knowledge to the workplace.

Work-based experience serves to reinforce and provide real-life context to the material being delivered in the module.

Private study encompasses the revising of all material presented in the above various forms of teaching and learning, together with the opportunity to explore and read more widely around specific topics.

1. **Assessment methods**

13.1 Written assignment 80% (1,500 words)

Video presentation of case study 20% (10 minutes)

13.2 Reassessment methods

Like for like

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *8.5* | *9.1* | *9.2* | *9.3* | *9.4* | *9.5* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Teaching | **x** | **x** | **x** | **x** | **x** |  | **x** |  |  |  |
| Work based experience | **x** | **x** |  |  |  |  |  | **x** | **x** | **x** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |
| *Written Assignment* | **x** | **x** | **x** | **x** |  | **x** | **x** | **x** |  | **x** |
| *Video presentation Case study* |  |  |  |  | **x** |  | **x** | **x** | **x** |  |

1. **Inclusive module design**

The Centre recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum.

b) Learning, teaching and assessment methods.

1. **Campus(es) or centre(s) where module will be delivered**

Distance

1. **Internationalisation**

The construction industry operates globallywhere structural innovation and materials and technology are constantly evolving. This introductory module broadens the students understanding of the potential of construction techniques and materials and the principles that govern their selection and application, including global sustainability.

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**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 23 Jan 19 | New | Sept 19 | New |  |
|  |  |  |  |  |