

MODULE DESCRIPTOR

Module Title

Construction: Technologies, Methods and Implications

| | | | |
|-----------|------------|-------------|--------|
| Reference | SU2051 | Version | 3 |
| Created | April 2023 | SCQF Level | SCQF 8 |
| Approved | July 2018 | SCQF Points | 30 |
| Amended | June 2023 | ECTS Points | 15 |

Aims of Module

To provide the student with the ability to recognise and propose alternative sustainable construction solutions and assess their impact on operations, maintenance, and lifecycle costs.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Distinguish alternative construction details in relation to functional elements of the design.
- 2 Practice the design of systems that integrate building structure and envelope while considering issues of whole lifecycle and practicing computer learning (CAD, Revit).
- 3 Report reasoned advice on the policy, law, and best practice of sustainability in their area of practice.
- 4 Conclude environmental strategies for optimising levels of human comfort and building performance.
- 5 Undertake critical reflection on the core contents of the module and relate to their application within the work place.

Indicative Module Content

Alternative sustainable design solutions and construction processes and their impact on cost, maintenance, and lifecycle cost and social value using computer application where applicable (CAD, Revit)

Module Delivery

The module is delivered in Blended Learning mode using structured online learning materials/activities and directed study, facilitated by regular online tutor support. Workplace Mentor support and work-based learning activities will allow students to contextualise this learning to their own workplace. Face-to-face engagement occurs through annual induction sessions, employer work-site visits, and modular on-campus workshops.

Indicative Student Workload

| | Full Time | Part Time |
|--|-----------|-----------|
| Contact Hours | 30 | N/A |
| Non-Contact Hours | 30 | N/A |
| Placement/Work-Based Learning Experience [Notional] Hours | 240 | N/A |
| TOTAL | 300 | N/A |
| <i>Actual Placement hours for professional, statutory or regulatory body</i> | 240 | |

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

| | | | | | |
|--------------|--|------------|------|--------------------|---------------|
| Type: | Coursework | Weighting: | 100% | Outcomes Assessed: | 1, 2, 3, 4, 5 |
| Description: | An integrated assignment consisting of illustrated written work to demonstrate understanding and application of the module learning outcomes and reflecting on the learning development throughout the module weeks that involves theory and practice. | | | | |

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The overall module grade is based on 100% weighting of Component 1 (assignment). An overall minimum grade D is required to pass the module. Non-submission will result in an NS grade

| Module Grade | Minimum Requirements to achieve Module Grade: |
|--------------|--|
| A | A |
| B | B |
| C | C |
| D | D |
| E | E |
| F | F |
| NS | Non-submission of work by published deadline or non-attendance for examination |

Module Requirements

| | |
|--------------------------|-------|
| Prerequisites for Module | None. |
| Corequisites for module | None. |
| Precluded Modules | None. |

INDICATIVE BIBLIOGRAPHY

- 1 FOSTER, J., GREENO, R. and HARINGTON, R., 2007. Structure and Fabric Part 2. 7th ed. Oxon: Routledge.
- 2 McMullan, R., (2012). Environmental Science in Building, 7th Edition.
- 3 PHILP, D. et al, 2015. Building Information Modelling for Dummies. John Wiley.
- 4 SCHITTICH, C., 2003. In Detail: Building in Existing Fabric: Refurbishment, Extensions, New Designs. Germany: Birkhauser.
- 5 SASSI, P., 2006. Strategies for Sustainable Architecture. Oxon: Routledge.
- 6 Kubba, Sam, (2017). Handbook of green building design and construction : LEED, BREEAM, and Green Globes. Butterworth-Heinemann
- 7 KeepingvM. & Shiers D. (2018). Sustainable building design : principles and practice. John Wiley & Sons, Incorporated