



MODULE SPECIFICATION

| Part 1: Information | | | |
|---------------------------|--|--------------------|--|
| Module Title | Engineering Principles for Civil Engineering | | |
| Module Code | UBGLW9-15-1 | Level | Level 4 |
| For implementation from | 2019-20 | | |
| UWE Credit Rating | 15 | ECTS Credit Rating | 7.5 |
| Faculty | Faculty of Environment & Technology | Field | Geography and Environmental Management |
| Department | FET Dept of Geography & Environmental Mgmt | | |
| Module type: | Standard | | |
| Pre-requisites | None | | |
| Excluded Combinations | None | | |
| Co- requisites | None | | |
| Module Entry requirements | None | | |

| Part 2: Description |
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| <p>Educational Aims: See Learning Outcomes.</p> <p>Outline Syllabus: Statics: Forces, moments and centre of gravity. Determinacy and stability. Equilibrium and reactions in statically determinate structures. Bending moment and shear force diagrams. Deflections of beams of standard load cases. Truss analysis. Axial stress and strain.</p> <p>Dynamics: Kinematics, projectiles, angular motion, Newton's laws of motion, energy, work and power, and vibration.</p> <p>Teaching and Learning Methods: Scheduled learning includes lectures and workshops with tutorial sessions.</p> <p>Independent learning includes hours engaged in problem solving and preparation of tutorial questions.</p> <p>Contact time: 36 hours Assimilation and skill development: 54 hours Coursework: 15 hours</p> |

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Exam preparation: 45 hours
Total: 150 hours

Part 3: Assessment

Component A: Two hour end of module examination.

Component B: Online written assignments equivalent to 1000 words to reinforce knowledge development and to provide regular and rapid feedback to help students consolidate their knowledge as the module progresses.

The Component B mark is calculated by averaging the marks of the written assignments.

| First Sit Components | Final Assessment | Element weighting | Description |
|---------------------------------|------------------|-------------------|---|
| Online Assignment - Component B | | 25 % | Online written assignments (equivalent to 1000 words) |
| Examination - Component A | ✓ | 75 % | Examination (2 hours) |
| Resit Components | Final Assessment | Element weighting | Description |
| Report - Component B | | 25 % | Report (1000 words) |
| Examination - Component A | ✓ | 75 % | Examination (2 hours) |

Part 4: Teaching and Learning Methods

| | | |
|-------------------|---|-----|
| Learning Outcomes | On successful completion of this module students will achieve the following learning outcomes: | |
| | Module Learning Outcomes | |
| | Appreciate the principles of structural behaviour | MO1 |
| | Undertake basic structural and engineering mechanics calculations | MO2 |
| | State and apply physical laws to the solution of engineering problems that arise in the study of statics and dynamics | MO3 |
| | Analyse statically determinate beams | MO4 |
| | Analyse statically determinate trusses | MO5 |
| | Evaluate stress and strain | MO6 |
| | Apply the laws of Newtonian mechanics on moving objects | MO7 |
| Contact Hours | Independent Study Hours: | |
| | Independent study/self-guided study | 114 |
| | Total Independent Study Hours: | 114 |
| | Scheduled Learning and Teaching Hours: | |

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| | | |
|--------------|---|-----|
| | Face-to-face learning | 36 |
| | Total Scheduled Learning and Teaching Hours: | 36 |
| | Hours to be allocated | 150 |
| | Allocated Hours | 150 |
| Reading List | <p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://uwe.rl.talis.com/modules/ubglw9-15-1.html</p> | |

Part 5: Contributes Towards

This module contributes towards the following programmes of study: