



MODULE SPECIFICATION

Part 1: Information			
Module Title	Engineering Principles for Civil Engineering		
Module Code	UBGLW9-15-1	Level	Level 4
For implementation from	2018-19		
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		
Contributes towards	Civil Engineering [Jan][FT][Northshore][4yrs] MEng 2018-19		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<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>

STUDENT AND ACADEMIC SERVICES

Contact time: 36 hours
 Assimilation and skill development: 54 hours
 Coursework: 15 hours
 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 be able to:	
		Module Learning Outcomes
	MO1	Appreciate the principles of structural behaviour
	MO2	Undertake basic structural and engineering mechanics calculations
	MO3	State and apply physical laws to the solution of engineering problems that arise in the study of statics and dynamics
	MO4	Analyse statically determinate beams
	MO5	Analyse statically determinate trusses
	MO6	Evaluate stress and strain
MO7	Apply the laws of Newtonian mechanics on moving objects	
Contact Hours	Contact Hours	
	Independent Study Hours:	
	Independent study/self-guided study	114

STUDENT AND ACADEMIC SERVICES

	Total Independent Study Hours:	114
	Scheduled Learning and Teaching Hours:	
	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>	