



UNIVERSITI TEKNOLOGI MARA

BSS410: STRUCTURES I

Course Name (English)	STRUCTURES I APPROVED
Course Code	BSS410
MQF Credit	2
Course Description	This subject provides an understanding on basic structural design related to reinforced concrete component.
Transferable Skills	Basic structural mechanic
Teaching Methodologies	Lectures, Tutorial
CLO	CLO1 Upon completion, students should be able to understand the structural behaviour and application of Reinforced Concrete in Construction. CLO2 Upon completion, students should be able to design a simple structure using Reinforced Concrete Components. CLO3 Upon completion, students should be able to understand the structure failure of reinforced concrete.
Pre-Requisite Courses	No course recommendations
Topics	
1. Introduction To Structural 1.1) n/a	
2. Loads On Building And Structures 2.1) n/a	
3. Moment Of Forces 3.1) n/a	
4. Stress, Strain, Elasticity 4.1) n/a	
5. Concurrent Coplanar Forces & Non – Concurrent Coplanar Forces 5.1) n/a	
6. Shear Forces And Bending Moment 6.1) n/a	
7. Properties Of Section -Centre of Gravity 7.1) n/a	
8. Properties Of Section -Moment of Inertia 8.1) n/a	
9. Simple Beam Design 9.1) n/a	
10. Test 10.1) n/a	
11. examination 11.1) n/a	

Assessment Breakdown	%
Continuous Assessment	40.00%
Final Assessment	60.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	n/a	30%	CLO1 , CLO2 , CLO3
	Test	n/a	10%	CLO1 , CLO2 , CLO3

Reading List	Reference Book Resources
	<ul style="list-style-type: none"> • W.H. Mosley and J.H Bungey 1989, <i>Reinforced Concrete Design</i>, Mac Millan Press • T.J. Mac Ginley 1990, <i>Reinforced Concrete Design, Theory and Examples</i>, Chapman and Hall • BS 8110, Part 1 1985, <i>The Structural Use of Concrete, Code of Practice for Design and Construction</i>, Blackwell Science United Kingdom. • Morrow H.W & Kokernak R.P 2001, <i>Statistic & Strength of Materials</i>, Prentice Hall New York • P.P. Bentiarn and R.J. 1994, <i>Mechanics of Engineering Materials, SI Version</i>, Longman • James M.Gere and Stephen P. Timonshanko 1991, <i>Mechanics of Materials</i>, Third Edition Ed., Chapman and Hall. • F.P Bear and E.R. Johnston Jr 1992, <i>Mechanics of Materials, SI Version</i>, McGraw Hill. • E.J. Hearn 1998, <i>Mechanics of Materials, Vol. 1 & 2</i>, 2nd Edition Ed., Pergamon Press • P. Bhatt, H.M. Nelson 1990, , <i>Structures</i>, 3rd Edition Ed., ELBS, Longman Group UK. Ltd. UK • Al Naqeim H, Durka F, Morgan W & Williams D 2002, <i>Structural Mechanics : Loads, Analysis, Design & Method</i>, Prentice Hall England. • H. Al Nageim 2003, <i>Structural Mechanics : Loads, Analysis, Design and Materials</i>, Prentice Hall.
Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources