



UNIVERSITI TEKNOLOGI MARA

BSS560: STRUCTURE DESIGN

Course Name (English)	STRUCTURE DESIGN APPROVED
Course Code	BSS560
MQF Credit	2
Course Description	The subject is focused on the application of architectural structure analysis on the building design in cooperated with the application of CAD system.
Transferable Skills	1. acquire skills and understanding of Structural Design and Analysis of a low rise industrial type buildings. 2. interpret the principle of structural design of building structure in relation of building design application.
Teaching Methodologies	Lectures, Blended Learning, Discussion, Self-directed Learning, Directed Self-learning , Computer Aided Learning
CLO	CLO1 Acquire skills and understanding of Structural Design and Analysis of a low rise industrial type buildings. CLO2 Interpret the principle of structural design of building structure in relation of building design application.
Pre-Requisite Courses	No course recommendations
Topics	
1. Philosophy of design 1.1) n/a	
2. Basic structural concept & material properties 2.1) n/a	
3. Design of R.C. elements to BS 8110 3.1) n/a	
4. Design of structural steel work elements to BS 5950 4.1) n/a	
5. Design of timber elements to BS5268 5.1) n/a	
6. Project Site Visit 6.1) n/a	
7. Project Progress 7.1) n/a	
8. Presentation 8.1) n/a	
9. Test 9.1) n/a	
10. Revision 10.1) n/a	
11. Study Week 11.1) n/a	
12. Final Exam 12.1) 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	Exercise on each topic	10%	CLO1 , CLO2
	Group Project	Student are divide to a group of 4 or 5 students. Each group are required to choose one case study base on the low rise industrial type building. From the case study, they will proposed the structural design base on selected area.	25%	CLO1 , CLO2
	Test	Consists of several question base on the design and analysis on the RC, Steel and timber .	5%	CLO1 , CLO2

Reading List	Recommended Text
	<ul style="list-style-type: none"> • Chanakya Arya 2009, <i>Design of Structural Elements</i>, CRC Press [ISBN: 0203926501] • Francis D. K. Ching 2014, <i>Architecture</i>, John Wiley & Sons [ISBN: 1118745132] • Paul Zelanski, Mary Pat Fisher 1996, <i>Design Principles and Problems</i>, Wadsworth Publishing Company [ISBN: 0155016156] • Steel Construction Institute, <i>Steelwork Design</i> [ISBN: 1870004000] • Steel Construction Institute (Great Britain) 2012, <i>Steel Designers' Manual</i>, John Wiley & Sons [ISBN: 1405189401] • Dennis Lam, Thien Cheong Ang, Sing-Ping Chiew 2013, <i>Structural Steelwork</i>, CRC Press [ISBN: 0415531918] • Leslie Victor Leech 1988, <i>Structural steelwork for students</i>, Butterworth-Heinemann [ISBN: 0408029706] • Frixos Joannides, Alan Weller 2002, <i>Structural Steel Design to BS 5950</i>, Thomas Telford [ISBN: 0727730126]
Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources