



UNIVERSITI TEKNOLOGI MARA

AAR601: CONSTRUCTION TECHNOLOGY IV

Course Name (English)	CONSTRUCTION TECHNOLOGY IV APPROVED
Course Code	AAR601
MQF Credit	3
Course Description	To study on the principles of steel frame construction for shed-type and multi-storey buildings of medium scale and complexity. Aspects encompass the variety of construction technology available, method of production, detailing and maintenance. Also included is the study on the materials associated with steel frame construction such as metal and glass. A study on buildings which shall relate to the design task of current design studio will be done and marked independently under this course. A brief study on elements and components of temporary works shall also be covered.
Transferable Skills	Reflective learner: Demonstrate ability to identify and articulate self skills, knowledge and understanding confidently and in a variety of contexts. Resourceful and responsible: Demonstrate ability to manage personal performance to meet expectations and demonstrate drive, determination and accountability.
Teaching Methodologies	Lectures, Field Trip, Case Study, Tutorial
CLO	CLO1 Discuss the compliances of steel construction in accordance to the standards requirements. CLO2 Illustrate the application of steel construction and related material commonly used in steel construction. CLO3 Differentiate complexity of steel construction through various architectural representation.
Pre-Requisite Courses	No course recommendations
Topics	
1. Steel Framed Construction - System of Column and Beam 1.1) N/A	
2. Steel Framed Construction - Various Roof and Enclosure System 2.1) N/A	
3. Steel Framed Construction - Various Steel Composite Construction 3.1) N/A	
4. Steel Framed Construction - In Accordance to UBBL 1984 4.1) N/A	
5. Steel Framed Construction - Design and Detailing of Doors and Windows 5.1) N/A	
6. Steel Framed Construction - Detailed Studies of Material 6.1) N/A	
7. Steel Framed Construction - Temporary Works 7.1) 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	Assessment on the understanding of the compliances of steel construction in accordance to the standards requirements.	20%	CLO1
	Assignment	Assessment on the understanding of differences in term of complexity of steel construction through various architectural representation.	20%	CLO3

Reading List	Reference Book Resources	<ul style="list-style-type: none"> • J.C McCormac 2008, <i>Structural steel design</i>, Prentice Hall • Schulitz H.C. 2000, <i>Steel construction manual</i>, Birkhauser, Basel • B.Frohlich & S.Schulenburg 2003, <i>Metal architecture : design and construction</i>, Birkhauser, Basel • A.Reichel, P.Ackermann & A.Hochberg 2007, <i>Building with steel: detailes, principles, ex</i>, Birkhauser, Basel
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	