UNIVERSITI TEKNOLOGI MARA

CSC786: WEB TECHNOLOGY AND ENGINEERING

Course Name (English)	WEB TECHNOLOGY AND ENGINEERING APPROVED
Course Code	CSC786

MQF Credit	3

Course Description	Web applications are complex systems that provide an excess of functionality to a large number of users. They also reveal unique behaviors and demands in terms of performance, scalability, usability, and security. This course looks into Web technologies and Web engineering in the development of Web applications that collect, organize and expose information resources. This information includes markup languages, programming interfaces and languages, and standards for document identification and display. Web technologies are those related to the interface between Web servers and their clients involved in the Web application development, whereas, Web engineering is the application of systematic, disciplined and quantifiable approaches to development, operation, and maintenance of Web applications. The course also addresses the concepts, methods, technologies, and techniques of Web application.

Transferable Skills	Problem solving skills developed through tests, assignments and projects.

Teaching Methodologies	Lectures, Blended Learning, Discussion, Small Group Sessions

CLO		
	CLO1	Apply major concepts of Web technology and Web engineering including its architecture
	CLO2	Create appropriate web design to accommodate current issues
	CLO3	Build Web application using Web programming languages

Pre-Requisite Courses	No course recommendations

Topics
1. Web Technologies 1.1) Introduction 1.2) Web Analytics 1.3) Web Services 1.4) Web Applications
2. Web Architecture 2.1) Web Application Framework 2.2) User and Systems: Behaviors and Demands
3. Issues in Web Technologies 3.1) Performances 3.2) Scalability 3.3) Usability 3.4) Security and others
4. Web Engineering 4.1) Disciplines 4.2) Attributes 4.3) Sources
5. Web Programming Languages 5.1) List of Languages 5.2) Comparison of Languages
6. Issues in Web Engineering 6.1) Design, Modelling 6.2) Implementation and Testing 6.3) Quality

Start Year : 2017

Review Year : 2020

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	At least 5 assignments	50%	CLO2
	Presentation	Project presentation	10%	CLO3
	Test	At least 2 tests	20%	CLO1
	Written Report	Report on the project	20%	CLO3

Reading List	Reference Book Resources	• **Anuradha A. Puntambekar 2013,** *Web Technology*
		• **Don Gosselin 2012,** *Principles of html, xhtml, and dhtml: The Web Technology Series*
		• **Elena Simperl, Roberta Cuel, Martin Stein 2013,** *Incentive-centri Semantic Web Application Engineering*
		• **Giner Alor-Hernández 2014,** *Frameworks, Methodologies, and Tools for Developing Rich Internet Applications (Advances in Web Technologies and Engineering (Awte))*
		• **Kogent Learning Solutions Inc 2014,** *Web Engineering and Technology*
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	