UNIVERSITI TEKNOLOGI MARA

CSC791: INTERACTIVE COMPUTING

Course Name (English)	INTERACTIVE COMPUTING APPROVED
Course Code	CSC791

MQF Credit	3

Course Description	This course covers the design issues in developing interactive networked applications, which are including the issues in human-computer and human-human interaction. The important factors such as user awareness and tasks concurrency will be discussed. The history and current trend of these matters will be explored for finding improved approaches in handling any problem in interactive networked applications.

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

Teaching Methodologies	Lectures, Discussion

CLO		
	CLO1	Discover problems related to interactive computing based on interactive models and technologies.
	CLO2	Bulid event handling in interactive computing design
	CLO3	Construct networked collaborative systems based on interactive technologies
	CLO4	Compare the interactive systems and technologies

Pre-Requisite Courses	No course recommendations

Topics
1. Introduction to Interactive Computing 1.1) Overview of the history and conceptual structure. 1.2) Explores principles and concepts that underlie interactive computing
2. Interactive Computing Models 2.1) Mathematical model for computation 2.2) Communication with the external world during the computation
3. Interactive Technologies 3.1) Intelligent interaction 3.2) Nature of interactive technology
4. Event Handling in Interactive Computing 4.1) Event handler 4.2) Event notification 4.3) Examples: mouse and keyboard
5. Interactive System Design 5.1) User Centred Design 5.2) HCI and the software lifecycle 5.3) HCI and requirements engineering 5.4) Text, forms, menus and graphics.
6. Networked Collaborative Systems 6.1) Applications 6.2) Collaborative modelling and simulation 6.3) Role-Based collaboration
7. Comparative Study on Interactive Systems and Technologies 7.1) Current trend

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assignment (10%) to assess practical skills in formulating event handling	10%	CLO2
	Group Project	Group Project (30%) to assess interpretation of ethical issues in interactive system and technologies	30%	CLO4
	Individual Project	Individual project (20%) to assess programming skill in interactive computing	20%	CLO2
	Quiz	Quiz (20%) to assess knowledge in interactive programming	20%	CLO1
	Test	Test (Final Assessment) (20%) to assess scientific skills in network collaborative systems	20%	CLO3

Reading List	Reference Book Resources	**Graham Lee 2019,** *Modern Programming: Object Oriented Programming and Best Practices: Deconstruct object-oriented programming and use it with other programming paradigms to build applications* **Packt Publishing [ISBN: 978-183898618]**
		DAVID. BENYON 2019, *Designing User Experience*, 4th Ed., **Pearson [ISBN: 1292155515]**
		David Travis,Philip Hodgson 2019, *Think Like a UX Researcher*, 1 Ed., CRC Press **[ISBN: 1138365297]**
		Henry Lee 2018, *Voice User Interface Projects*, 1 Ed., Packt **Publishing [ISBN: 9781788473354]**
		Heidi Krömker 2019, *HCI in Mobility, Transport, and Automotive Systems*, **Springer [ISBN: 3030226654]**
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	