



UNIVERSITI TEKNOLOGI MARA

CSC649: SPECIAL TOPICS IN COMPUTER SCIENCE

Course Name (English)	SPECIAL TOPICS IN COMPUTER SCIENCE APPROVED
Course Code	CSC649
MQF Credit	3
Course Description	A course on the fundamental concepts in computer science and technologies embedded into computing systems to perform a certain task. The course will cover specialized technology and described in terms of frameworks and problem formulations, standard models, methods, computational tools, algorithms, as well as methodologies to evaluate the system and select optimal models. The topics are presented as a result of technological change or community or student interest, that include a variety of computer-related skills or intensive study in a specific area of computer science and technologies. A product development in the selected application areas will motivate the coursework and material. The design of the product will focus on critical thinking and quality productivity.
Transferable Skills	Demonstrate ability to identify and articulate self skills, knowledge and understanding confidently and in a variety of contexts
Teaching Methodologies	Lectures, Lab Work, Seminar/Colloquium, Tutorial, Discussion
CLO	CLO1 Illustrate the fundamental concepts of specialized technology in computer science (C3) CLO2 Report through verbal and in writing on the impact of specialized technology in computer science (A3). CLO3 Accommodate inquisitive mind of specialized technology in computer science (A4).
Pre-Requisite Courses	No course recommendations
Topics	
1. Overview of Specialized Technology 1.1) N/A	
2. Problem Formulations 2.1) N/A	
3. Recent Trends 3.1) N/A	
4. Methods and Techniques 4.1) N/A	
5. Tools 5.1) N/A	
6. Performance Analysis 6.1) N/A	
7. Product Testing 7.1) N/A	
8. Report Writing 8.1) N/A	

Assessment Breakdown		%		
Continuous Assessment		100.00%		
Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	n/a	30%	CLO1
	Group Project	n/a	20%	CLO3
	Individual Project	n/a	20%	CLO2
	Presentation	n/a	10%	CLO2
	Written Report	n/a	20%	CLO1
Reading List	Reference Book Resources	<ul style="list-style-type: none"> • Bahga,A. & Madisetti,V. 2016, <i>Big Data Science & Analytics: A hands-On Approach</i> • Goodfellow,I., Bengio,Y. & Courville,A 2016, <i>Deep Learning</i>, The MIT Press • Bill Franks 2014, <i>The Analytics Revolution: How to Improve Your Business By Making Analytics Operational In The Big Data Era</i> Wiley • Malcolm Frank and Paul Roehrig 2017, <i>What To Do When Machines Do Everything: How to Get Ahead in a World of AI, Algorithms, Bots, and Big Data</i> , Wiley • Bernard Marr 2016, <i>Big Data in Practice: How 45 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results</i>, Wiley [ISBN: 13: 978-11192] 		
Article/Paper List	This Course does not have any article/paper resources			
Other References	This Course does not have any other resources			