



UNIVERSITI TEKNOLOGI MARA

CSC404: PROGRAMMING II

Course Name (English)	PROGRAMMING II APPROVED
Course Code	CSC404
MQF Credit	3
Course Description	This course introduces the students to the techniques of programming using an imperative structured language. It covers single and multi-dimensional arrays, records, pointers and file processing concepts. Besides covering the basic syntax and semantics, the course emphasizes on problem solving methodology and modular programming techniques.
Transferable Skills	1. Ability to display skills in creating functional program for a given task. 2. Ability to apply creative, imaginative and innovative thinking and ideas to problem solving.
Teaching Methodologies	Lectures, Lab Work
CLO	CLO1 Describe the fundamental programming constructs. CLO2 Display practical skills in programming with appropriate constructs for a given programming task. CLO3 Apply modular programming approach to construct functional program.
Pre-Requisite Courses	No course recommendations
Topics	
1. Pointers 1.1) Introduction to Pointers 1.2) Pointer Operations 1.3) Pointer Manipulations	
2. Function 2.1) Introduction to Functions 2.2) Function call 2.3) Library functions 2.4) User-defined functions 2.5) Parameter passing 2.6) Pointer with function	
3. Array 3.1) One-dimensional array 3.2) Multi-dimensional Arrays 3.3) Passing array to function 3.4) Pointer with Array	
4. Records (struct) 4.1) Record definition and operations 4.2) Arrays and records 4.3) Record and function	
5. Fundamentals of Data Files 5.1) Processing Text Files 5.2) File operation 5.3) File processing	

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assg 1 & 2	5%	CLO2
	Assignment	Assg 3 & 4	5%	CLO2
	Individual Project	Individual Project	10%	CLO3
	Quiz	Quiz 1, 2 & 3	10%	CLO1
	Test	Test 1	10%	CLO1
	Test	Test 2	10%	CLO3

Reading List	Recommended Text	<ul style="list-style-type: none"> D.S.Malik 2017, <i>C++ Programming: From Problem Analysis to Program Design</i>, 6 Ed., Thomson Learning USA
	Reference Book Resources	<ul style="list-style-type: none"> Stroustrup, Bjarne 2013, <i>The C++ Programming Language</i>, 4 Ed., Addison Wesley Liang, Y.D 2015, <i>Introduction to Programming with C++</i>, 2nd Edition Ed., Pearson Higher Education Farrell, Joyce 2014, <i>Programming Logic and Design Comprehensive</i>, 6th Edition Ed., Course Technology Zak, Dianne 2017, <i>An Introduction to Programming with C++</i>, 6th Edition Ed., Course Technology
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	