

COURSE OUTLINE

Department & Faculty: Faculty of Computer Science & Information Systems	Page : 1 of 5
Course Code: DCP2073 / SCP1103 Course Name : Basic Programming In C Total Contact Hours: 42 hours Course Pre-requisite: None	Semester: I Academic Session: 2011/2012

Lecturer	:	Dr Mohd Soperi b. Mohd Zahid
Room No.	:	N28, 439-09
Telephone No.	:	07-5532342
E-mail	:	soperi@utm.my
Synopsis	:	As a fundamental subject, this course equips the students with theory and practice on problem solving techniques by using the structured approach. Students are required to develop programs using C programming language, in order to solve simple to moderate problems. The course covers the following: preprocessor directives, constants and variables, data types, input and output statements, text files, control structures: sequential, selection and loop. It may also include arrays and basic library functions.

LEARNING OUTCOMES

By the end of the course, students should be able to:

No.	Course Learning Outcome	Programme Learning Outcome(s) Addressed	Assessment Methods
1.	Solve problems systematically using a structured logic approach.	PO1 (C3, , P2, A2)	Q, A, T, F
2.	Understand the program's coding written in C.	PO2(C3, P2, A2)	Q, A, T, F
3.	Construct a C program correctly from the analyzed problems using structured approach.	PO2 (C3, P2, A2)	A, T, F (T – Test ; Q – Quiz; A – Assignment; F – Final Exam)

Prepared by: Name: MASITAH GHAZALI Signature: Date:	Certified by: (Course Panel Head) Name: Signature: Date:
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STUDENT LEARNING TIME

Teaching and Learning Activities			Student Learning Time (hours)	
Face to face Learning	<ul style="list-style-type: none">Lecturer Centered	Lecture	21	
	<ul style="list-style-type: none">Student Centered	- Practical/Lab/Tutorial	21	
	<ul style="list-style-type: none">Others		0	
	Sub Total		42	
Self Learning	<ul style="list-style-type: none">Non Face to face or Student Centered Learning (SCL)		34	
	<ul style="list-style-type: none">Revision		18	
	<ul style="list-style-type: none">Assessment Preparation		15	
	<ul style="list-style-type: none">Others		0	
	Sub Total		67	
Formal Assessment	<ul style="list-style-type: none">Continuous Assessment		8	
	<ul style="list-style-type: none">Final Examination		3	
	<ul style="list-style-type: none">Others		0	
	Sub Total		11	
TOTAL SLT			120	

TEACHING METHODOLOGY

Lecture and Discussion, Co-operative Learning, Lab Activities

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WEEKLY SCHEDULE

Week	Topics	Activities/hours
Week 1 (12-16/9)	1.0 Introduction to Computers and Programming 1.1 Introduction to a Program 1.2 Computer Systems: Hardware and Software 1.3 Programs and Programming Languages 1.4 Procedural and Object-Oriented Programming	Lecture/Lab: 3
Week 2 - 3 (19-23/9) (26-30/9)	2.0 Problem-solving process 2.1 Input, Processing, and Output 2.2 The Programming Process 2.3 System Development 3.0 Problem-solving techniques 3.1 Pseudocode 3.2 Flowchart 3.3 Structured chart	Lecture/Lab: 6 Lab exercise 1 Pseudocode/Flowchart
Weeks 4 (3-7/10)	4.0 Introduction to C 4.1 Variables 4.2 Identifiers 4.3 Data types 4.4 Basic arithmetic operators 4.5 Bitwise operator	Lecture/Lab: 3 Assessment: Quiz 1
Week 5 (10-14/10)	5.0 Arithmetic Expression 5.1 Mathematical Expressions 5.2 Type Conversion 5.3 Overflow and Underflow 5.4 Type Casting 5.5 Named Constants 5.6 Multiple Assignments and Combined Assignment	Lecture/Lab: 3 Assessment: Case Study for project
Week 6 (17-21/10)	6.0 Input/Output operations 6.1 Formatting Output 6.2 Formatted Input 6.3 Focus on debugging: Hand tracing a Program 6.4 Focus problem solving: A case study	Lecture/Lab: 3 Quiz 2

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	6.5 Introduction to File Input and Output	
Week 7 (24-28/10)	7.0 Control structure: Selection/Branch 7.1 The <code>if</code> statement 7.2 The <code>if/else</code> statement 7.3 The <code>if/else if</code> statement 7.4 The <code>switch</code> statement 7.5 The <code>break, continue</code> statement	Lecture/Lab: 3 Assessment: Assignment 2: <code>if</code> statement Lab Exercise 2
Week 8 31/10-4/11)	8.0 Control structure: Loop 8.1 The <code>for</code> loop 8.2 The <code>while-do</code> loop	Lecture/Lab: 3 Mid-Semester Test 31/10 – 8.00 – 10.00 pm
<i>SEMESTER BREAK (5-9/11)</i>		
Week 9 (10/11-11/11) (14/11-18/11)	8.0 Control structure: Loop (CONT.) 8.3 The <code>do-while</code> loop 8.4 Nested loop	Lecture/Lab: 3
Week 10- 11 ((21/11-25/11) (28/11-2/12)	9.0 Function: 9.1 Predefined/library function 9.2 User-defined function	Lecture/Lab: 6 Assessment: Lab Exercise 3 Quiz 3
Week 12 (5-9/12)	10.0 Array: One dimension 10.1 Declaration and definition 10.2 Accessing arrays	Lecture/Lab: 3 Assessment: Assignment 3: Array Quiz 4
Week 13-14 (12-16/12) (19-23/12)	11.0 Array: Two dimension 11.1 Declaration and definition 11.2 Accessing arrays	Lecture/Lab: 6 Assessment: Lab Exercise 4
Week 15-16 ((26-30/12)	STUDY WEEK	

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(2-6/11/2012)	EXAMINATION WEEK			
<p>REFERENCES :</p> <p>Courses Notes: From text book or any other reliable resources.</p> <p>Main Text: 1. H.M Deitel, P.J Deitel. <i>C How to Program</i>, 6th edition. 2007. Pearson Education.</p> <p>Other References: 2. Byron, S. Gottfried. <i>Programming with C</i>. 2nd .Edition, 2007, McGraw Hill 3. Delores M. Etter, <i>Engineering Problem Solving</i>, 3rd edition. 2004. Pearson (Prentice-Hall). 4. Jeri R. Hanly, Elliot B. Koffman, <i>Problem Solving and Program Design in C</i> , 5th edition. 2007. Addison-Wesley. 5. Any C Programming books.</p>				
<p>GRADING</p>				
No.	Assessment	Number	% each	% total
1	Assignments	1	25%	25
2	Quizzes	3	5%	15
3	Lab Exercises	4	2.5%	10
4	Mid-Semester Exam	1	20%	20
5	Final Exam	1	30%	30
	Overall Total			100