

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Computer Systems and Programming		Module Delivery
Module Type	Core		☐ Theory ☐ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☒ Seminar
Module Code	MECT 112		
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level	UGII	Semester of Delivery	1
Administering Department	Mechatronics Dept.	College	Technical Engineering College
Module Leader	Dr. Hayder Kareem Algabri	e-mail	hayder_kareem_algabri@hilla-unc.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	None	e-mail	None
Peer Reviewer Name	Dr. Hayder Kareem Algabri	e-mail	
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	The aim of this course is to provide students with knowledge about computer system and abilities to design system programs using modern methodologies and to implement their design using modern development tools.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. To apply the knowledge about computer system environment. 2. To enable students make programs in C++ Programming Language.
Indicative Contents المحتويات الإرشادية	

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Assessment is based on hand-in assignments, written exam, Case study, Quizzes, seminars, Practical testing and Online testing.
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Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	31	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	44	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7

	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	An Overview of Microcomputer Systems
Week 2	The System Unit
Week 3	Peripheral Devices
Week 4	Memory Fundamentals
Week 5	Types of Storage Devices
Week 6	Communication and Network Fundamentals
Week 7	Microprocessors Architecture
Week 8	High Level Language
Week 9	Introduction to C++ Programming Language
Week 10	Variables and Data Types
Week 11	Integers and Integer Representations
Week 12	Arrays in C++
Week 13	Compiler Basics
Week 14	Control Flow I
Week 15	Control Flow II
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to C ++ Programming Language
Week 2	Lab 2: Condition Statements in C++
Week 3	Lab 3: Condition Statements in C++

Week 4	Lab 4: Control Flow Statements in C++
Week 5	Lab 5: Control Flow Statements in C++
Week 6	Lab 6: Arrays in C++
Week 7	Lab 7: Designing Projects

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Recommended Texts	Starting Out with C++: From Control Structures through Objects, 8th Edition	No
Websites	https://www.shiksha.com/it-software/c-c-plus-plus-syllabus-chp	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

د. هارون عبد الكاظم شهد
العميد

HF Hamdan

د. حيدر كريم مظهر

عميد الكلية : أ.د. هارون عبد الكاظم شهد

رئيس القسم: أ.د. حسين فاضل حمدان

اسم التدريسي: م.د. حيدر كريم مظهر

التاريخ : 2026 / 3 / 26

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