

	Ministry of Higher Education and Scientific Research - Iraq Al-Naji University College of Engineering AI Engineering Department	
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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Computer 1		Module Delivery
Module Type	Basic		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☒ Seminar
Module Code	NUA1102		
ECTS Credits	3		
SWL (hr/sem)			
Module Level	1	Semester of Delivery	
Administering Department	AI Engineering	College	Engineering
Module Leader	Muna Mahdi Salih	e-mail	muna.mahdi@alnaji-uni.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	MSc.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date		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 Objectives أهداف المادة الدراسية	Students successfully completing this course will be able to: 1. Utilize the computer for fundamental tasks. 2. Identify and discuss the hardware components of the computer system. 3. Creating documents using a word processor and creating presentations. 4. Conducting research on the Internet. 5. An introduction to Artificial Intelligence
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Understand Core Components of Computers Explain the basic structure and function of computer hardware components, such as the CPU, memory, storage, and input/output devices. 2. Proficiency in Operating Systems Demonstrate a fundamental understanding of operating systems, including file management, system navigation, and basic configuration. 3. Familiarity with Software Applications Identify and use essential software applications like word processors, spreadsheets, and presentation tools, understanding their role in daily computing tasks. 4. Introduction to Networking and the Internet Describe the basics of computer networks, the Internet, and related terminology, including IP addresses, protocols, and security basics. 5. Foundational Knowledge in Computer Security Recognize common computer security threats and understand basic cybersecurity practices to protect data and privacy. 6. Develop Problem-Solving Skills Apply logical thinking and basic troubleshooting skills to solve common computer problems or perform basic tasks independently. 7. Basic Understanding of Programming Concepts Gain a foundational understanding of programming concepts, including algorithms, flowcharts, and simple coding structures, to prepare for further studies. 8. Ethics and Digital Citizenship Demonstrate an awareness of ethical considerations and best practices for responsible, respectful digital engagement.
Indicative Contents المحتويات الإرشادية	Students successfully completing this course will be able to: 1. Utilize the computer for fundamental tasks. 2. Identify and discuss the hardware components of the computer system. 3. Creating documents using a word processor and creating presentations. 4. Conducting research on the Internet. 5. An introduction to Artificial Intelligence

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Students successfully completing this course will be able to: 1. Utilize the computer for fundamental tasks. 2. Identify and discuss the hardware components of the computer system. 3. Creating documents using a word processor and creating presentations. 4. Conducting research on the Internet. 5. An introduction to Artificial Intelligence

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	60	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	75	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	12
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	135		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	10% (10)	3 , 6 and 10	Example LO #3, #6 and #10
	Lab	1	10% (10)	2 and 12	All
	Onsite assignment	5	10% (10)	Continuous	All
	Homework	5	10% (10)	Continuous	
Summative assessment	Midterm Exam	2hr	10% (10)	7	
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction to Computer: Concepts of Hardware and Software with their components; Concept of Computing, Data and Information; Applications of Information Electronics and Communication Technology (IECT); Connecting input/output devices, and peripherals to CPU.
Week 2	Computer Components: Computer Portions, Hardware Parts, I/O Units, Memory Types, Basic CPU Components, Computer Ports, Personal Computer, Personal Computer (Features and Types)
Week 3	Operating System and Graphical User Interface GUI: Operating System; Basics of Common Operating Systems: The User Interface, Using Mouse Techniques; Use of Common Icons, Status Bar, Using
Week 4	Word Processing: Word Processing Basics; Opening and Closing of documents; Text creation and Manipulation; Formatting of text; Table handling; Spell check, language setting and thesaurus; Printing of word document.
Week 5	Spread Sheet: Basics of Spreadsheet; Manipulation of cells; Formulas and Functions; Editing of Spread Sheet, printing of Spread Sheet.
Week 6	Presentation Software: Basics of presentation software; Creating Presentation; Preparation and Presentation of Slides; Slide Show; Taking printouts of presentation/ handouts.
Week 7	Midterm
Week 8	Introduction to Internet and Web Browsers: Computer networks Basic: LAN, WAN; Concept of Internet and its Applications; connecting to internet; World Wide Web; Web Browsing software's, Search Engines; Understanding URL; Domain name; IP Address.
Week 9	Communications and Emails: Basics of electronic mail: Getting an email account; Sending and receiving emails: Accessing sent emails; Using Emails, Document collaboration.
Week 10	Computer Troubleshooting: Identifying and solving common hardware and software problems that computer users encounter. Basic troubleshooting techniques and tools for diagnosing and resolving
Week 11	Introduction to C++ Programming, Memory Concepts & Arithmetic operations, Bit Manipulations
Week 12	Control Structures
Week 13	Loops in C++
Week 14	Multiple Selection Statements with break and continue, Logical Operators,
Week 15	Introduction to Array
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Introduction to C++ Programming
Week 2	Memory Concepts & Arithmetic operations
Week 3	Bit Manipulations
Week 4	Control Structures (Part I)
Week 5	Control Structures (Part II)
Week 6	Midterm
Week 7	Control Structures (Part II)
Week 8	Loops in C++ (Part I)
Week 9	Loops in C++ (Part II)
Week 10	Multiple Selection Statements with break and continue
Week 11	Logical Operators
Week 12	Intorduction to Array (One Dimension)
Week 13	Introduction to Array (Two Dimension)
Week 14	Function in C++
Week 15	Pointers

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Paul Deitel & Harvey Deitel, "C++ How to program", 9th Ed. , 2014, Pearson Education.	
Recommended Texts	Richard L. Halterman, " Fundamentals of C++ programming " , 1st Ed., 2016.	
Websites		

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 (فقد 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.