MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Introduction to Computer Science**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**URCOM**				
ECTS Credits	**4**				
SWL (hr/sem)	**100**				
Module Level		1	**Semester of Delivery**		1
Administering Department		CS	**College**	College of Sciences	
Module Leader	Dr. Safaa H. Shwail		**e-mail**	safaa.husseinshwail@nahrainunive.edu.iq	
Module Leader's Acad. Title		Lecturer	**Module Leader's Qualification**		Ph.D.
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name		Name	**e-mail**	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	1. The History of the Personal Computer 2. Understanding Digital Components 3. Processing, Storage, and Connectivity 4. Accessing, Using, and Managing Software 5. Application Software 6. Understanding System Software 7. Understanding Programming 8. How Networks Function 9. Threats to Your Digital Assets
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. You will be able to describe the history of personal computer hardware and software development. 2. You will be able to describe the devices that make up a computer system. 3. You will be able to describe how computers process and store data and how devices connect to a computer system 4. You will be able to explain the ways to access and use software and describe how to best manage your software. 5. Describe the different types of application software used for productivity and multimedia. 6. You will be able to explain the types and functions of operating systems and explain the steps in the boot process 7. You will be able to describe the life cycle of a software project and identify the stages in the program development life cycle 8. You will be able to explain the basics of networking, including the components needed to create a network, and describe the different ways a network can connect to the Internet. 9. You will be able to describe hackers, viruses, and other online annoyances and the threats they pose to your digital security
Indicative Contents المحتويات الإرشادية	Understanding Digital Components, Understanding Your Computer, Input Devices, Output Devices. Processing, Storage, and Connectivity, Processing and Memory on the Motherboard, Storing Data and Information, Connecting Peripherals to the Computer, Power Management and Ergonomics. Accessing, Using, and Managing Software, Software Basics, Managing Your Software, Application Software, Productivity and Business Software, Multimedia and Educational Software.

	Understanding System Software, Operating System Fundamentals, What the Operating System Does, Starting Your Computer. Understanding Programming, Life Cycle of an Information System, Life Cycle of a Program. How Networks Function, Networking Fundamentals, Network Architectures, Network Components, Connecting to the Internet. Threats to Your Digital Assets, Identity Theft and Hackers, Computer Viruses, Online Annoyances and Social Engineering.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module is by explaining lectures in an interactive way by letting the students to participate in the presenting through questions and answers while at the same time refining and expanding their critical thinking skills. This will be achieved through classes and labs.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	37	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
	Quizzes	4	10% (10)	2,5,8,12	All

Formative assessment	**Assignments**	2	5% (5)	5,10	All
	Projects / Lab.	1	15% (15)	Continuous	All
	Report	1	10% (10)	10	All
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7,14	All
	Final Exam	3hr	50% (50)	15	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	The History of the Personal Computer
Week 2	Understanding Digital Components
Week 3	Understanding Digital Components (cont.)
Week 4	Processing, Storage, and Connectivity
Week 5	Accessing, Using, and Managing Software
Week 6	Application Software
Week 7	Application Software (cont.)
Week 8	Mid-term Exam 1
Week 9	Understanding System Software
Week 10	Understanding System Software (cont.)
Week 11	Understanding Programming
Week 12	Understanding Programming (cont.)
Week 13	How Networks Function
Week 14	Threats to Your Digital Assets
Week 15	Mid-term Exam 2
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Computer Hardware 1

Week 2	Lab 2: Computer Hardware 2
Week 3	Lab 3: Computer Assembly 1
Week 4	Lab 4: Computer Assembly 2
Week 5	Lab 5: Disk Operating System
Week 6	Lab 6: Dos Commands: Internal Commands
Week 7	Lab 7: Dos Commands: Internal Commands 2
Week 8	Mid-Term Exam 1
Week 9	Lab 8: Dos Commands: Internal Commands 3
Week 10	Lab 9: Dos Commands: Internal Commands 4
Week 11	Lab 10: Dos Commands: External Commands 1
Week 12	Lab 11: Dos Commands: External Commands 2
Week 13	Lab 12: Dos Commands: External Commands 3
Week 14	Lab 13: Dos Commands: External Commands 4
Week 15	Mid-Term Exam 2

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	Technology in action complete, 16th edition, 2020.	No
Recommended Texts	Computer System Architecture 3rd edition by M.Morris Mano 1992	No
Recommended Texts	Fundamentals of Logic Design, 6th edition 2010	No

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.