MODULE DESCRIPTION FORM
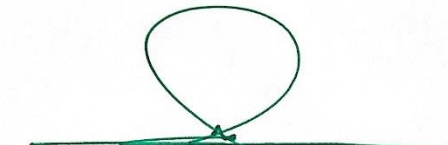
Module Information

Module Title	**Computer Technology**	**Module Delivery**	
Module Type	C	☒ Theory	
Module Code	**AI1103**	☒ Lecture	
ECTS Credits	**5**	☒ Lab	
SWL (hr/sem)	**125**	☒ Tutorial ☒ Practical ☐ Seminar	

Module Level	1	**Semester of Delivery**	1
Administering Department	Artificial Intelligence	**College**	Computer Science and Information Technology
Module Leader	Karar Sadiq	**e-mail**	karar.sadeq@uowa.edu.iq
Module Leader's Acad. Title	Assistant Lecturer	**Module Leader's Qualification**	M.Sc.
Module Tutor	Karar Sadiq	**e-mail**	karar.sadeq@uowa.edu.iq
Peer Reviewer Name	Ali Mahmoud Ali	**e-mail**	ali.mahmoud@uowa.edu.iq
Scientific Committee Approval Date	01/11/2025	**Version Number**	1.0

Relation with other Modules

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Department Head Approval   **Dean of the College Approval**

Module Aims, Learning Outcomes and Indicative Contents

Module Objectives	- Provide a basic knowledge of computer hardware and software - Introduce the business areas to which computers may be applied. - Provide an introduction to business organization and information systems. - Develop the skills in network & communication, which play an important part in business computing and information processing
Module Learning Outcomes	-The student should understand the architecture of any IT systems. -The student should understand the parts of hardware. -The student should understand the system software. -The student should understand the architecture of networks, protocols and communications devices.
Indicative Contents	Data Conversion · D/A converters · A/D converters · Sample and Hold circuits Digital Component Operations · Multiplexing · Data storage · Integrated Circuits Digital Technology · Memory Technology · Circuit Board Technology · Nano-Technology

Learning and Teaching Strategies

Strategies	- The student should use utilities in the lab to apply scientific experiment - The ability to execute the applications software.

Student Workload (SWL)

Structured SWL (h/sem)	60	**Structured SWL (h/w)**	4
Unstructured SWL (h/sem)	65	**Unstructured SWL (h/w)**	4.3
Total SWL (h/sem)	**125**		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	5	10% (10)	2,4,6,9,11	LO #1, LO #2, LO #3
	Assignments	5	10% (10)	3,5,7,10,12	LO #2, LO #4,
	Projects / Lab.	1	10% (10)	Continuous	All Learning Outcomes (LO #1 – LO #4)
	Report	1	10% (10)	13	LO #4
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1, LO #2, LO #3
	Final Exam	3hr	50% (50)	16	All Learning Outcomes (LO #1 – LO #4)
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Introduction of Computers and Programming
Week 2	Brief history of computer
Week 3	Generation of Computers & Computer hierarchy
Week 4	Basic Computer Components
Week 5	Computer function (fetch cycle, interrupt cycle, I/O function
Week 6	Semiconductor main memory (RAM, ROM, CACHE)
Week 7	Midterm Exam
Week 8	Computer Software (application software)
Week 9	External & Internal memory
Week 10	Telecommunications system & Network
Week 11	Topology of a network and layering
Week 12	data representation
Week 13	Multimedia
Week 14	Computer Security
Week 15	All Topics
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	Basic Computer Components
Week 2	Computer function (fetch cycle, interrupt cycle, I/O function
Week 3	Computer function (fetch cycle, interrupt cycle, I/O function
Week 4	Semiconductor main memory (RAM, ROM, CACHE)
Week 5	Computer Software (application software)
Week 6	Computer Software (application software)
Week 7	External & Internal memory
Week 8	External & Internal memory
Week 9	Telecommunications system & Network
Week 10	Topology of a network
Week 11	Topology of a network
Week 12	Layering model
Week 13	Layering model
Week 14	Protocols
Week 15	addressing communications

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Computer Organization and Architecture Designing for Performance (8th Edition).	No
Recommended Texts	Computing Essentials Making IT work for you 2017 by Timothy J. O'Leary.	No
Websites	https://www.geeksforgeeks.org/computer-science/	

Grading Scheme				
Group	**Grade**	Mark	**Marks %**	**Definition**
Success Group **(50 - 100)**	**A -** Excellent	Excellent	90 - 100	Outstanding Performance
	B - Very Good	Very Good	80 - 89	Above average with some errors
	C - Good	Good	70 - 79	Sound work with notable errors
	D - Satisfactory	Fair / Average	60 - 69	Fair but with major shortcomings
	E - Sufficient	Pass / Acceptable	50 - 59	Work meets minimum criteria
Fail Group **(0 – 49)**	**FX –** Fail	Fail (Pending)	(45-49)	More work required but credit awarded
	F – Fail	Fail	(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.