MODULE DESCRIPTION FORM

Module Information		
Module Title	**Computer Science**	**Module Delivery**
Module Type	Support	- Theoretical -
Module Code	Medu206	
ECTS Credits	**3**	
SWL (hr/sem)	**59**	

Module Level	1	Semester of Delivery	1
Administering Department	Medicine	College	Medicine
Module Leader	Mohammed Baqir Salam Hashim	e-mail	mohammed .bo@uowa.edu.iq
Module Leader's Acad. Title	M. Sc.	Module Leader's Qualification	M. Sc..
Scientific Committee Approval Date	2026-4-1	Version Number	V 1.0

Approval of the Dean of the College

Relation with other Modules

Relation with other Modules			
Prerequisite module	No	**Semester**	/
Co-requisites module	No	**Semester**	/

Module Aims, Learning Outcomes and Indicative Contents

Subject objective	This course aims to provide students with fundamental concepts related to computer networks and security, e-commerce principles, and computer troubleshooting skills. Furthermore, the course will offer a comprehensive introduction to Artificial Intelligence (AI), including its history, techniques, applications across various fields (e.g., smartphones, healthcare, finance), and the ethical and social challenges associated with its development and use. The content will focus on the practical aspect while providing a forward-looking perspective on emerging trends in the field.
Subject learning outcomes	By the end of this course, the student will be able to: 1. Understand basic network components, types, and security principles. 2. Troubleshoot and resolve common network, hardware, and software issues. 3. Define various electronic banking services and understand their principles. 4. Define Artificial Intelligence, and outline its history and key techniques. 5. Analyze the role of AI in modern technology, particularly in smartphones. 6. Explore AI applications in diverse sectors such as education, healthcare, transportation, and finance. 7. Discuss the ethical, social, and cultural implications of AI implementation. 8. Identify future trends and recent research in the field of AI.
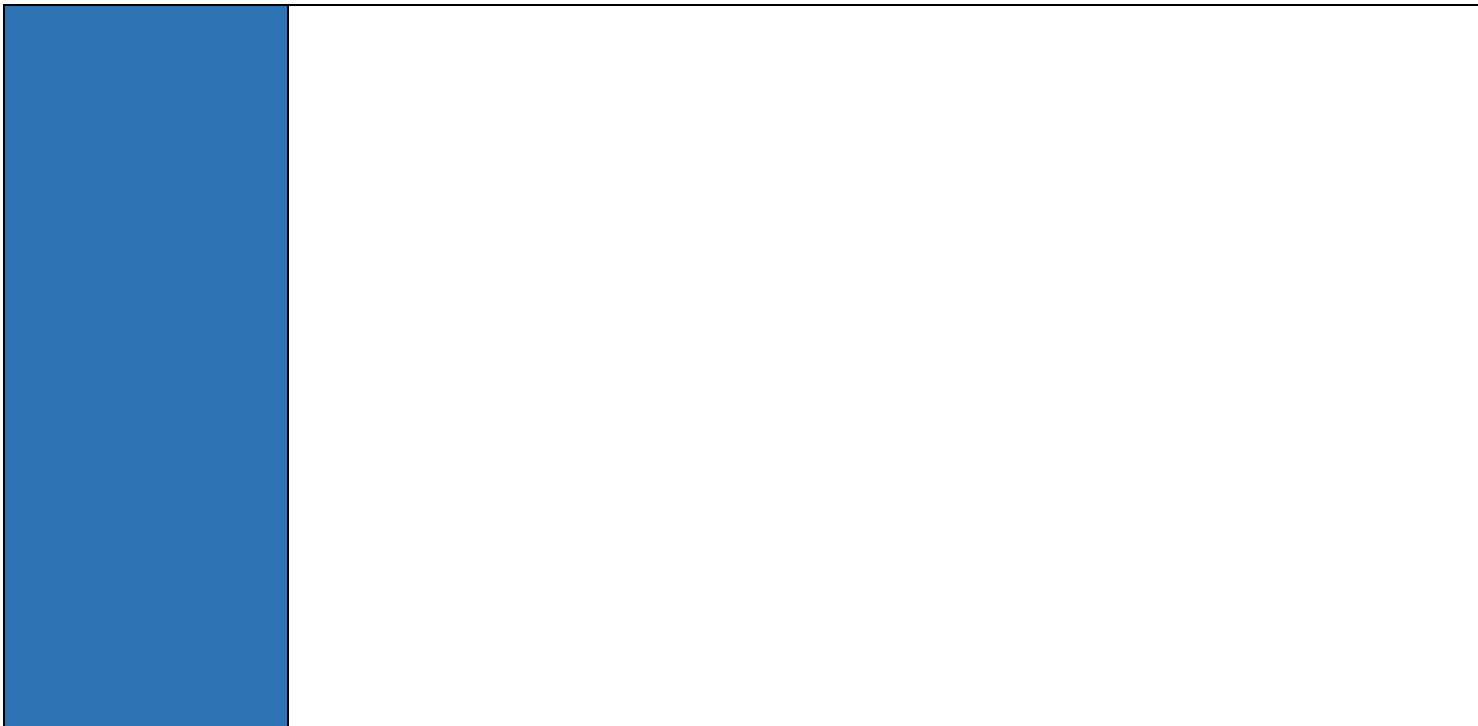
	Learning and Teaching Strategies
Strategies	1. Interactive Learning 2. Problem-Based Learning 3. Practical Learning (Hands-on Learning) 4. Collaborative Learning 5. Blended Learning

Student Workload (SWL)			
Scheduled hours (hr./Sem.)	28	**Scheduled hours (hr./week)**	4
Unscheduled hours (hr./ Sem.)	28	**Unscheduled hours (hr./week)**	1
Total (hr./ Sem.)	56 + 3 final = 59		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**First Midterm Exam**	1	20	4.7	1,2,3
	Second Midterm Exam	1	20	10	3,4
	Report	1	20	7,14	1 – 8
Summative assessment	**Attendance & Participation**	2 hr.	10	8	6,7,8
	Final exam	3 hrs.	30	16	All
Total assessment		100 (Marks)			

Delivery Plan (Weekly Syllabus)	
Material Covered	
Week 1	**Part 1: Networking, Security & Troubleshooting** **Security and Networking: What is a network? Types of networks. Basic network components**

Week 2	Network Security Basics and Troubleshooting: Understanding network threats. Introduction to tr Common issues and symptoms. Troubleshooting tools. Using command-line tools for diagnostics. resolving connectivity & performance issues.
Week 3	Computer Troubleshooting: Introduction to troubleshooting. Common hardware & software issue diagnosis and repair. Using Safe Mode. Troubleshooting OS issues. Resolving blue screen errors & Virus & malware removal techniques. Updating drivers and software
Week 4	Part 2: E-Commerce

(Mobile Banking). Concepts of Electronic Banking Services: Online banking. ATM and debit card banking, SMS banking. Electronic alerts. Mobile banking. |
| Week 5 | (Part 3: Introduction to AI & Applications)

Introduction to AI: Definition of AI. History of AI. AI techniques and approaches. Key characteris challenges, and limitations of AI. The role of data in AI systems. AI tools and frameworks. |
| Week 6 | The Role of AI in Modern Smartphones: AI-driven mobile technologies. Virtual Assistants (Siri, G Alexa). Adaptive learning. Real-time translation services. The future of AI in smartphone technolo implementing AI in mobile devices. |
| Week 7 | Applications and Tools of AI: Overview of AI applications in various industries: Education, Healt Transportation, Advertising, Finance, Robotics and Automation. AI in marketing, targeting, and in image and video analysis. Smart Cities. Future trends. |
| Week 8 | Part 4: AI, Society & Ethics)

AI and Society: Introduction to AI and its societal impact. The role of AI in enhancing public safe perspectives on AI adoption. AI and governance: Policy implications. |
| Week9 | Ethical Challenges in AI: Introduction to ethics in AI. Transparency and explainability of AI syste concerns in AI data usage. The ethical implications of autonomous systems. Ethics in AI-driven m advertising. Ethical considerations in education. Human rights and AI implementation |
| Week10 | The Future of AI: Future trends in AI. Recent research and emerging technologies. |

Educational and teaching resources		
	Text	**Available in the library?**
Essential/Required Books	1. Books ECHNOL vid Watson, IGCSE and Communication
2. 7. Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020) N
3. 8. Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology In Action Complete", 16th Edition (2020).
4. 9. Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024).
5. 10.Microsoft Office 2019 Step by Step 1st Edition by Curtis Frye & Joan Lambert
6. الخضر علي الخضر بحاث، " أساسيات الحاسوب" 11.2016	No

books The testator With it	1. Books ECHNOL vid Watson, IGCSE and Communication 2. 7. Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020) N 3. 8. Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology In Action Complete", 16th Edition (2020). 4. 9. Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024). 5. 10.Microsoft Office 2019 Step by Step 1st Edition by Curtis Frye & Joan Lambert 6. الخضر علي الخضر بحاث، " أساسيات الحاسوب" 11.2016	No
Websites		

Grading Scheme				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جد 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 (قد 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.