Ministry of Higher Education and Scientific Research - Iraq
Al-Mansour University College
Department of Communication Engineering

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Computer 2**			**Module Delivery**	
Module Type	**Basic learning activities**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **L Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Code	**MUC24**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level	UGI		**Semester (s) offered**		
Administering Department	All Department		**College**		
Module Leader			**e-mail**		
Module Leader's Acad. Title			**Module Leader's Qualification**		
Module Tutor			**e-mail**	alnuaimi_bashar@uodiyala.edu.iq	
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	3/11/2024		**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, Indicative Contents and Brief Description أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية مع وصف مختصر			
Module Aims أهداف المادة الدراسية	1. Training students on the fundamentals of computer networks. 2. Exploring the concept of e-commerce and electronic banking services.		

	3. Developing practical skills in computer troubleshooting. 4. Providing a foundational understanding of Artificial Intelligence (AI). 5. Introducing various applications of AI across industries. 6. Analyzing the social implications of AI on society and international relations. 7. Addressing ethical challenges associated with AI technology. 8. Exploring future trends and advancements in AI.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Students can describe basic network components, explain their functions, and understand network security fundamentals. As well as diagnose and resolve common network issues. 2. Students will know the concepts of electronic banking services and identify different forms of online banking. 3. Students will be able to identify common hardware and software problems encountered by computer users. 4. Students will describe various AI techniques and approaches, and discuss their applications. 5. Students will be able to analyze the impact of AI on daily tasks and interactions. 6. Students will identify and discuss AI applications in fields such as education, healthcare, finance, transportation, marketing, and advertising. 7. Students will reflect on the potential societal changes brought by AI technology. 8. Students will analyze the role of ethics in guiding the development and application of AI. 9. Students will evaluate potential future applications of AI and consider their societal and technological implications
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1. Course Introduction Security and Networking, Basic Network Components, and Network Security Basics. 2. Working with Concepts of electronic banking services. 3. Working with Computer Troubleshooting. 4. Introduction to AI, Techniques, Approaches, Challenges, Ethical Considerations and Applications 5. AI and Society, Ethical Challenges in AI and The Future of AI
Course Description	Security and Networking: What is a network? Types of networks. Basic network components. Network Security Basics. Understanding network

	threats. Network Troubleshooting E-Commerce: Concepts of electronic banking services, this includes online banking: ATM and debit card services, Phone banking, SMS banking, electronic alert, Mobile banking Computer Troubleshooting: Identifying and solving common hardware and software problems that computer users encounter. Basic troubleshooting techniques and tools for diagnosing and resolving issues. Introduction to AI: Definition of AI, History of AI, AI Techniques and Approaches, Challenges and Ethical Considerations. AI in Our Daily Lives: AI in smartphones and virtual assistants like Siri or Google Assistant. Applications of AI: Education, Healthcare, Finance, Transportation, Marketing and Advertising. AI and Society: (How AI affects social, AI and international relations, AI and the future of humanity). Ethical Challenges in AI: (AI ethics, privacy and surveillance, the impact of AI on the job market). The Future of AI: (Future trends in AI, recent research and emerging technologies).

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	• In this course, students are guided by: • Using different examples. • Using different styles of discussion that aim to connect the theoretical and practical sides. • Asking questions and giving exercises that require analysis and conclusions related to lectures. • Encourage students to participate in discussions and do practical work. • Encourage students to work in groups.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	**48**	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	**4.2**
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	**27**	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	**0.8**
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% (5)	6 and 12	All
	Assignments	2	10% (5)	2 and 13	LO #1 to #8
	Projects / Lab.	1	10% (10)	Continuous	All
	Group Work	2	10% (5)	13	LO #2, #4 and #6
Summative assessment	Midterm Exam	1hr	10% (10)	9	LO #1 - #5
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction Security and Networking
Week 2	E-Commerce
Week 3	Computer Troubleshooting
Week 4	Basic troubleshooting techniques and tools
Week 5	Introduction to AI
Week 6	AI Techniques and Approaches
Week 7	AI in Our Daily Lives
Week 8	AI and virtual assistants like Siri or Google Assistant
Week 9	Applications of AI: Education and Healthcare
Week 10	Applications of AI: Finance and Transportation
Week 11	Applications of AI: Marketing and Advertising
Week 12	AI and Society: AI and International Relations
Week 13	AI and Society: AI and the future of humanity
Week 14	Ethical Challenges in AI
Week 15	The Future of AI

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Introduction to Networking Tools and Setup • Lab Orientation: Introduction to networking equipment and basic networking tools. • Setup of a simple network, understanding network topologies.
Week 2	Basic Network Configuration • Configuring IP addresses, subnetting, and basic router setup. • Ping and traceroute commands to test network connectivity.
Week 3	Network Security Basics • Hands-on with firewalls: Configuring basic firewall rules. • Understanding packet sniffing and analyzing network traffic with tools like Wireshark.
Week 4	Troubleshooting Network Issues • Common network troubleshooting commands: `ipconfig`. • Diagnosing connectivity issues and network troubleshooting scenarios.
Week 5	Introduction to E-Commerce Platforms • Overview of popular e-commerce platforms and payment gateways. • Setting up a demo e-commerce website and exploring payment options.
Week 6	Digital Banking Simulation • Simulating online banking transactions (ATM, debit card, mobile banking).
Week 7	Computer Troubleshooting (Hardware) • Identifying and diagnosing common hardware issues. • Practicing component replacement (e.g., RAM, hard drive) and system optimization.
Week 8	Computer Troubleshooting (Software) • Diagnosing and fixing common software issues (e.g., system crashes, software conflicts). • Using system diagnostic tools and software repair utilities.
Week 9	Introduction to AI Tools and Software • Exploring basic AI tools and platforms, such as Python libraries (NumPy, Pandas).
Week 10	AI in Daily Life: Virtual Assistants • Setting up and experimenting with virtual assistants like Siri, Google Assistant, or Alexa.
Week 11	AI in Various Industries • Case study labs focusing on AI applications in healthcare, finance, or marketing.
Week 12	AI and Society • Analyzing AI-driven social media algorithms. • Experimenting with recommendation systems and discussing ethical concerns.
Week 13	Ethical AI and Privacy • Using tools to analyze privacy and surveillance aspects of AI (e.g., face recognition demo).
Week 14	Future Trends in AI • Hands-on session with generative AI models or recent AI advancements.
Week 15	Capstone Lab Project and Review • Students work on a mini-project integrating networking, e-commerce, troubleshooting, or AI.

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	• William Stallings, Network Security Essentials: Applications and Standards, 6th Edition, 2020. • Kenneth Laudon and Carol Guercio Traver, *E-Commerce 2024: Business, Technology, and Society*, 18th Edition, 2024 • Melanie Mitchell, *Artificial Intelligence: A Guide for Thinking Humans*, 1st Edition, 2019. • Stuart Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach*, 4th Edition, 2020.	No
Recommended Texts	• Wendell Odom, *CCNA 200-301 Official Cert Guide*, 1st Edition, 2019. • Mark Miller, *Digital Banking Tips and Solutions*, 1st Edition, 2021. • Dan Gookin, *Troubleshooting and Maintaining Your PC All-in-One For Dummies*, 3rd Edition, 2021. • Max Tegmark, *Life 3.0: Being Human in the Age of Artificial Intelligence*, 1st Edition, 2017. • Wendell Wallach, *The Ethics of Artificial Intelligence and Robotics*, 1st Edition, 2020.	
Websites	• Eli the Computer Guy (youtube.com/user/elithecomputerguy) • AI for Everyone by Andrew Ng (coursera.org) • **Google AI Experiments** (experiments.withgoogle.com/ai) • UNESCO AI and Society (unesco.org) • AI Ethics Lab (aiethicslab.com)	

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	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				

NB 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.