MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Computer Principles**			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOMU0000032**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level		2	**Semester of Deliver**		2
Administering Department		PM	**College**	TE	
Module Leader	Ali Ajmi Falih		**e-mail**	Ali.ajmi.falih@uomus.edu.iq	
Module Leader's Acad. Title		Ass.Lecturer	**Module Leader's Qualification**		M.Sc
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date		01/6/2024	**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 and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	The goal of teaching the subject of communications is to provide students with a fundamental understanding of how information is transmitted and received over various media. It aims to: 1. Introduce basic concepts such as signals, modulation, bandwidth, and noise. 2. Explain communication systems, including analog and digital transmission. 3. Develop problem-solving skills in analyzing and designing communication circuits and systems. 4. Prepare students for advanced topics like wireless communication, data networks, and information theory. 5. Enhance practical skills through lab work and simulations involving real-world communication technologies. Overall, the course equips students with the theoretical and practical knowledge needed for careers in telecommunications, electronics, and networking.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Understand the Fundamentals of Communication: Describe the basic principles, types, and models of communication. Explain the components and processes of effective communication. 2. Apply Verbal and Non-verbal Communication Skills: Demonstrate effective speaking, listening, and presentation techniques. Interpret and use body language, tone, and other non-verbal cues appropriately. 3. Communicate Effectively in Various Contexts: Adapt communication styles to suit academic, professional, and intercultural settings. Collaborate and communicate efficiently within teams and group environments. 4. Utilize Modern Communication Technologies: Use digital tools (e.g., email, social media, video conferencing) for clear and professional communication. Analyze the impact of technology on modern communication practices. 5. Develop Critical Thinking and Message Analysis Skills:

	Evaluate the credibility and effectiveness of messages in media and interpersonal contexts. Construct coherent, persuasive, and ethically sound messages. 6. Resolve Communication Barriers and Conflicts: Identify common communication barriers and propose solutions. Practice conflict resolution strategies through communication techniques. --- Let me know if you want these tailored to a specific level (e.g., high school, university, business communication) or aligned with a specific curriculum or standard.
Indicative Contents المحتويات الإرشادية	Learning Internet Communications requires understanding various technical concepts that form the foundation of how the Internet works. Here are practical guidelines to help you study this subject effectively: □ 1. Understand Networking Basics Start with studying the fundamentals of Computer Networks: What is a protocol? Types of networks (LAN, WAN, MAN) Network components (modem, router, switch) Learn about the OSI Model and TCP/IP Model and their layers. □ 2. Focus on Key Internet Protocols Make sure you understand the following protocols: IP (Internet Protocol) – for addressing TCP / UDP – reliable vs. unreliable transmissi… Learning Internet Communications requires understanding various technical concepts that form the foundation of how the Internet works. Here are practical guidelines to help you study this subject effectively: --- □ 1. Understand Networking Basics Start with studying the fundamentals of Computer Networks: What is a protocol? Types of networks (LAN, WAN, MAN)

	Network components (modem, router, switch) Learn about the OSI Model and TCP/IP Model and their layers --- 2. Focus on Key Internet Protocols Make sure you understand the following protocols: IP (Internet Protocol) – for addressing TCP / UDP – reliable vs. unreliable transmissi…

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The major approach used to offer this module will be to promote student engagement in the exercises while also enhancing and broadening their critical thinking abilities. This will be accomplished through lectures, interactive tutorials, and the consideration of various sorts of easy experiments incorporating some engaging sampling exercises for the students.

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	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**150**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	3	10% (10)	3,8 and 12	LO #1, #2,#4,#5 and #6
	Assignments	4	10% (10)	2,5,10 and 14	LO #1, #4,#5 and #6
	Projects / Lab.	3	20% (20)	Continuous	All
	Report				
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #3
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Security and Networking: What is a network? Types of networks. Basic network components. Network Security Basics. Understanding network threats. Network Troubleshooting
Week 2	E-Commerce: Concepts of Electronic banking services this include online banking: ATM and debit card services, Phone banking. SMS banking, electronic alert, Mobile banking
Week 3 &4	Computer Troubleshooting: Identifying and solving common hardware and software problems that computer users encounter. Basic troubleshooting techniques and tools for diagnosing and resolving issues.
Week 5&6	Introduction to Al: Definition of Al, History of Al, Al Techniques and Approaches, Challenges and Ethical Considerations
Week 7& 8& 9	Al in Our Daily Lives: Al in smartphones and virtual assistants like Siri or Google Assistant.)
Week 10&11	Applications of Al: Education, Healthcare, Finance, Transportation, Marketing and Advertising.
Week 12	

	AI and Society: (How AI affects social, AI and international relations, AI and the future of humanity.
Week 13	surveillance, the impact of AI on the job market
Week 14	The Future of AI (Future trends in AI, recent research and emerging technologies.)
Week 15	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 5&6	
Week 7& 8& 9	
Week 10&11	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Introduction to Computer Skills **For first year students, Bisha University**	Yes

	Computer Science Principles: The Foundational Concepts of Computer Science - For AP® Computer Science Principles 2020th Edition , Mr. Kevin P Hare (Author), Pindar Van Arman (Foreword) 1. Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020) 2. Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology In Action Complete", 16th Edition (2020). 3. Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024).	
Recommended Texts	MICROSOFT ACCESS, EXCEL & POWER BI FOR Tech DemystifiedBEGINNERS & POWER USERS, (Author)	No
Websites	https://www.just.edu.jo/~mqais/CIS99/PDF/Ch.01_Introduction_%20to_computers.pdf	

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.

Code	Course/Module Title	ECTS	Semester
NTU 101	COMPUTER PRINCIPLES	3	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	2	63	12
Description			
This course provides a comprehensive introduction to computer networking. Students will learn the fundamental concepts, protocols, and technologies that form the basis of modern communication networks, including the Internet. Topics include network models (such as the OSI and TCP/IP models), IP addressing and subnetting, data transmission, routing and switching, network devices, wireless networking, and network security basics. The course combines theoretical knowledge with hands-on practice through labs and simulations, preparing students to design, configure, and troubleshoot basic network systems.			