	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Applied Pathological Analysis Department	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Computer II			**Module Delivery**	
Module Type	Basic			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	URCOM2				
ECTS Credits	3				
SWL (hr/sem)	75				
Module Level	2		**Semester of Delivery**	4	
Administering Department	APPLIED PATHOLOGICAL ANALYSIS		**College**	College of Sciences	
Module Leader	Basheer Nahidh AbdulAmeer		**e-mail**	Basheer.Ameen@nahrainuniv.edu.iq	
Module Leader's Acad. Title	Assistant Lecturer		**Module Leader's Qualification**	M.Sc.	
Module Tutor	None		**e-mail**	None	
Peer Reviewer Name	None		**e-mail**	None	
Scientific Committee Approval Date	18/1/2025		**Version Number**	1	
Lab. Staff	M.Sc. Saif Mohammed, M.Sc. Mohammed Majed, M.Sc. Rasha Shahier				

Relation with other Modules العلاقة مع المواد الدراسية الأخر ى			
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 الدراسي ة	1. Network security 2. Computer Troubleshooting 3. E-commerce 4. Artificial Intelligent (AI) 5. Applications and Tools in AI. 6. AI in Modern Smartphones 7. AI and Society 8. EthicsIn AI 9. The AI Future
Module Learning Outcomes مخرجات التعلم للمادة الدراسي ة	1. You will be able to understand network and its types 2. You will be able to Identify and understand the important of network security 3. Understanding the E-commerce Application and how use them 4. You will be able to solve common HW and SW problems in computer 5. You will be able to explain the Fundamentals of AI 6. You will be able to describe AI Applications and Real-World Problem Solving. 7. You will be able to use the AI application in smartphones 8. You will be able to Understand and Discuss the Ethics and Social Implications of AI 9. You will be able to understand what is the AI future. 10. You will be able to understand and use methos of digital image processing in MATLAB as practical application

Indicative Contents المحتويات الإرشادية	Introduction to Networking and Network Security Introduction to E-commerce(Types of E-commerce, E-commerce marketplaces and websites and online payment systems) Hardware Troubleshooting, Software Troubleshooting and System Maintenance and Preventative Care. Introduction to Artificial Intelligence (History and Evolution, Types of AI, and Applications of AI) AI Ethics and Social Implications AI in Real-World Applications AI Tools Digital Image Processing

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 اسبوع ا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفص ل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفص ل	27	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفص ل	75		

Module Evaluationتقييم المادة الدراسي ة

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	4	10% (10)	Continuous	All
	Assignments	3	10% (10)	Continuous	All

	Report	1	10% (10)	Continuous	
	Lab	2	10%(10)	8,14	All
Summative assessment	**Midterm Exam**	2hr	10% (10)	7,15	All
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظر ي	
	Material Covered
Week 1	Security and Networking
Week 2	E-Commerce
Week 3	Computer troubleshooting
Week 4	Computer troubleshooting (cont..)
Week 5	Introduction to AI (definition and evolution of AI)
Week 6	Introduction to AI (Key characteristics and Benefits of AI)
Week 7	**Mid-term Exam 1**
Week 8	The Role of AI in Modern Smartphones (AI mobile technologies and virtual assistants)
Week 9	The Role of AI in Modern Smartphones (Adaptive learning and real time translation services)
Week 10	Applications and AI tools (overview of AI applications)
Week 11	Applications and AI tools (Transportation, marketing, advertising, robotics and automation technologies)
Week 12	AI and Society
Week 13	Ethics In AI

Week 14	The future of AI
Week 15	**Mid-term Exam 2**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to Image Processing (Working with Image Types in MATLAB)
Week 2	Lab 2: Image Representation (read, display, save and information of an image)
Week 3	Lab 3: Display Array Data as Image
Week 4	Lab 4:Display Array Data as Image (Cont.)
Week 5	Lab 5: Spatial Transformations (crop, resize and rotate)
Week 6	Lab 6: Image Types and Type Conversions
Week 7	Lab 7: Image Types and Type Conversions (Cont.)
Week 8	**Practical Exam 1**
Week 9	Lab 8: Thresholding and Histogram tools
Week 10	Lab 9: Image Arithmetic
Week 11	Lab 10: Image Arithmetic (Cont.)
Week 12	Lab 11: Analyzing and Enhancing image
Week 13	Lab 12: Image registration
Week 14	**Practical Exam 2**
Teaching Staff	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts		
Recommended Texts	• Introduction to Artificial Intelligence (AI) by Ahmed Banafa 2024 • Cambridge IGCSE Information and Communication Technology (3rd. Ed.) by David Watson, Graham Brown 2021 • Technology In Action Complete (16th. Ed.)by Alan Evans, Mary Anne Poatsy, Kendall Martin 2020 • Fundamentals of Digital Image Processing: A Practical Approach with Examples in MATLAB by Chris Solomon 2011	No
Websites		

Grading Scheme مخطط الدرجا ت				
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	راس ب	(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.



ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي