MODULE DESCRIPTION FORM

Module Information					
Module Title	**Introduction to Artificial Intelligence (AI)**			**Module Delivery**	
Module Type	**C**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code	**AI1101**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	**1**		**Semester of Delivery**	1	
Administering Department	Artificial Intelligence		**College**	Computer Science and Information Technology	
Module Leader	Ali Mahmoud Ali		**e-mail**	ali.mahmoud@uowa.edu.iq	
Module Leader's Acad. Title	assistant lecturer		**Module Leader's Qualification**	M.Sc.	
Module Tutor	Ali Mahmoud Ali		**e-mail**	ali.mahmoud@uowa.edu.iq	
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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	The aim of this module is to provide an introduction to Artificial Intelligence (AI) and its various applications. Students will gain a comprehensive understanding of the fundamental concepts, techniques, and algorithms used in AI, as well as the ethical considerations associated with its use. The module will also explore the impact of AI on society, economy, and various industries.
Module Learning Outcomes	By the end of this module, students are expected to: 1. Understand the basic concepts and principles of Artificial Intelligence. 2. Gain knowledge of various AI techniques and algorithms. 3. Develop an understanding of the ethical implications of AI. 4. Analyze the impact of AI on different aspects of society and industry. 5. Apply AI techniques to solve real-world problems.
Indicative Contents	Introduction to Artificial Intelligence Definition, brief history, and scope of AI. Different types of AI systems. Problem Solving and Search Algorithms Problem formulation and representation. Uninformed search algorithms (e.g., breadth-first search, depth-first Machine Learning Ethical and Social Implications

Learning and Teaching Strategies	
Strategies	Conceptual Understanding: Hands-on Practice Code Review and Feedback Problem-Solving Exercises

Student Workload (SWL)			
Structured SWL (h/sem)	48	**Structured SWL (h/w)**	3
Unstructured SWL (h/sem)	102	**Unstructured SWL (h/w)**	6.8
Total SWL (h/sem)	**150**		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	6	10% (10)	2,3,4,6,8,11	LO #1, LO #2
	Assignments	5	10% (10)	3,5,7,8,9	LO #2, LO #3, LO #4
	Seminar.	1	10% (10)	12	All Learning Outcomes (LO #1 – LO #5)
	Report	1	10% (10)	13	LO #4, LO #5
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	All Learning Outcomes (LO #1 – LO #5)
	Final Exam	3hr	50% (50)	16	All Learning Outcomes (LO #1 – LO #5)
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Historical overview of AI, AI Introduction
Week 2	Programing and AI important
Week 3	AI Types
Week 4	Problem Solving: **Introduction to problem-solving techniques and algorithms**
Week 5	AI Applications Overview: **A survey of AI applications in various domains such as healthcare, finance, and gaming.**
Week 6	**search algorithms like depth-first search and breadth-first search.**
Week 7	Mid-term Exam
Week 8	Machine Learning Basics: **A brief introduction to the fundamentals of machine learning**
Week 9	**Supervised learning**
Week 10	**unsupervised learning**
Week 11	**Expert systems**
Week 12	**Knowledge base**
Week 13	**Rule based approaches**
Week 14	**AI Ethics Awareness: An introduction to ethical considerations in AI, including fairness, bias, and responsible AI development.**
Week 15	**Preparatory week before the final Exam**

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Book Title: "Artificial Intelligence: A Guide to Intelligent Systems" Author: Michael Negnevitsky	No
Recommended Texts	**Russell, S., & Norvig, P.** "*Artificial Intelligence: A Modern Approach*" (4th ed.). Pearson.	No
Websites	https://ai.stanford.edu/	

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.				