

levels, and ensure complete syllabus coverage.



Faculty of  
**Computer Applications**



<b>Programme</b>	B.Sc. IT Honours (Artificial Intelligence & Machine Learning)				<b>Branch</b>	Computer Applications			
<b>Semester</b>	I				<b>Version</b>	1.0.0.0			
<b>Effective from Academic Year</b>	2026-27				<b>Effective for the batch Admitted in</b>	June 2026			
<b>Subject code</b>	U81E6AI 1		<b>Subject Name</b>		ARTIFICIAL INTELLIGENCE-I				
<b>Teaching scheme</b>					<b>Examination scheme(Marks)</b>				
<b>(Per week)</b>	<b>Lecture (DT)</b>		<b>Practical (Lab.)</b>		<b>Total</b>		<b>CCE</b>	<b>SEE</b>	<b>Total</b>
	L	TU	P	TW					
Credit	2	-	-	-	2	Theory	25	25	50
Hours	2	-	-	-	2				
<b>Objective:</b>									
To learn the basic principles, techniques, and applications of Artificial Intelligence									
<b>Pre-requisites:</b>									
One should have Basic Knowledge of probability and statistics									
<b>Learning Outcome:</b>									
Name of CO		Description							
CO1		Understand the basics, scope, and evolution of Artificial Intelligence.							
CO2		Identify applications and types of Artificial Intelligence.							
CO3		Explain intelligent agents and their environments.							
CO4		Formulate AI problems using state space and production systems.							
CO5		Apply search and heuristic techniques to solve AI problems.							
<b>Mapping of CO and PO:</b>									
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	
CO1	2	1	0	2	1	1	0	2	
CO2	2	1	1	3	2	2	0	2	

CO3	2	1	1	3	2	1	0	2	
CO4	2	1	1	3	1	1	1	2	
CO5	2	1	1	3	3	2	1	3	
<b>Content:</b>									
<b>Unit</b>	<b>Content</b>							<b>Hrs.</b>	
1	<b>Introduction to Artificial Intelligence:</b> Definition and meaning of Artificial Intelligence, History and evolution of AI, AI vs Automation vs Machine Learning (introductory comparison), Human intelligence vs Machine intelligence, Scope of AI, Advantages and disadvantages of AI, Future trends and challenges in Artificial Intelligence.							06	
2	<b>Applications and Types of AI:</b> Applications of AI in healthcare, education, business, robotics and daily life, Types of AI (Narrow AI, General AI, Super AI), AI development lifecycle, Overview of AI techniques and approaches.							06	
3	<b>Intelligent Agents:</b> Concept of intelligent agents, Structure of an agent, Agent environment, PEAS description, Properties of task environments, Types of AI agents (Simple reflex, Model-based, Goal-based, Utility-based, Learning agents).							06	
4	<b>Problem Solving and State Space Search:</b> Problem definition in AI, Blind search vs informed search (overview), State space representation, Initial state, goal state and operators, Problem formulation examples, Production systems, Production system characteristics, Control strategies.							06	
5	<b>Search and Heuristic Techniques:</b> Issues in the design of search programs, Local search strategies (overview), Generate-and-Test method, Hill Climbing search, Best-First search, Problem reduction approach, Constraint Satisfaction Problems (CSP), Means–Ends Analysis.							06	
<b>Practical Content:</b>									
-									
<b>Reference Books:</b>									
1	Artificial Intelligence Elain Rich: McGraw Hill								
2	Principles of AI & ES Development, David W. Rolston, McGraw Hill								
3	Artificial Intelligence An Engineering Approach, Robert J. Sctialkaff, McGraw Hill								
<b>Web Reference:</b>									
1	<a href="http://www.javatpoint.com/artificial-intelligence-tutorial">www.javatpoint.com/artificial-intelligence-tutorial</a>								
<b>MOOC/Certificate Course:</b>									
1	<a href="http://www.coursera.org/learn/ai-for-everyone">www.coursera.org/learn/ai-for-everyone</a>								
2	<a href="http://www.coursera.org/learn/artificial-intelligence-an-overview">www.coursera.org/learn/artificial-intelligence-an-overview</a>								
<b>Question Paper Scheme:</b>									
<b>End Semester Examination Duration:</b> (1 Hour Theory Examination)									
<b>Note for Examiner: -</b>									
Q-1 Any one out of Two (05 Marks)									
Q-2 Any one out of Two (05 Marks)									
Q-3 Any one out of Two (05 Marks)									
Q-4 Any one out of Two (05 Marks)									
Q-5 Any one out of Two (05 Marks)									

	*The question paper must comprehensively address all Course Outcomes (COs), align with Bloom's Taxonomy levels, and ensure complete syllabus coverage
--	---