



C. U. SHAH UNIVERSITY, WADHWAN CITY.

Faculty of: **Sciences & Life Sciences**

Course: **Bachelor of Science**

Semester: **II**

Subject Code: **MDC202-1C**

Subject Name: **Artificial Intelligence**

Sr. No	Category	Subject Code	Subject Name	Teaching hours/ Week			Credit hours	Credit Points	Evaluation Scheme/ Semester								
				Th	Tu	Pr			Theory				Tutorial / Practical				Total
									Continuous and Comprehensive Evaluation		End Semester Exams		Internal Assessment		End Semester Exams		
									Marks	Marks	Marks	Duration	Marks	Duration	Marks	Duration	
4	MDC	MDC202-1C	Artificial Intelligence	3	2	0	5	4	10	Assignment	50	2	25	1	-	-	100

Course Objective :

- To prepare the students to manage the software components in a computer independently and to be a Programmer.
- To motivate the students to take up higher studies in Computer Science and Artificial Intelligence

COURSE CONTENTS

Course Outline for Theory

UNIT	COURSE CONTENT	TEACHING HOURS
I	Introduction, Definition, Future of Artificial Intelligence, Characteristics of Intelligent Agents, Typical Intelligent Agents, Problem Solving Approach to Typical AI problems, Problem solving Methods, Search Strategies, Uninformed, Informed Heuristics, Local Search Algorithms and Optimization Problems - Searching with Partial Observations	10
II	Constraint Satisfaction Problems, Constraint Propagation, Backtracking Search, Game Playing, Optimal Decisions in Games, Alpha-Beta Pruning Stochastic Games, Knowledge Representation First Order Predicate Logic, Prolog Programming Unification, Forward Chaining-Backward Chaining, Resolution, Knowledge Representation	10
III	AI applications	10

TEACHING METHODOLOGY:

Conventional method (classroom blackboard teaching)

ICT Techniques

Teaching through the classroom

Variety of learning styles and tools (PowerPoint presentations, audio-visual resources, e-resources, seminars, workshops, models)

Arrangement of lectures duration and practical session as per defined credit numbers:

Units	Lecture Duration (In Hrs.)		Calculation of Credits (In Numbers)		Total Lecture Duration	Credit Calculation
	Theory	Practical	Theory	Practical /Tutorial	Theory+ Practical	Theory+ Practical /Tutorial
Unit – 1	10	-	3	1	10	4
Unit – 2	10	-			10	
Unit – 3	10	-			10	
TOTAL	30	-	3	1	30	4

Evaluation:

Theory Marks	Practical Marks	Total Marks
75	25	100

REFERENCE BOOKS:

1. S. Russell and P. Norvig, "Artificial Intelligence: A Modern Approach, Prentice Hall, Third Edition, 2009.
2. Artificial Intelligence: A Modern Approach, 4th Edition, Stuart Russell, peter Norvig University of California at Berkeley, Pearson education, 2020.
3. I. Bratko, —Prolog: Programming for Artificial Intelligence, Fourth Edition, Addison-Wesley Educational Publishers Inc., 2011

NPTEL Reference:

<https://archive.nptel.ac.in/courses/112/103/112103280/>