

SES's L.S. RAHEJA COLLEGE OF ARTS AND COMMERCE (AUTONOMOUS)

Syllabus for Approval

BoS meeting held on: 04-04-2026

AC meeting held on: 07-04-2026

Board of Studies: Information Technology and Data Science

Sr. No.	Heading	Particulars
1	Nomenclature of the Course	Foundation of Artificial Intelligence
2	Eligibility for Admission	College Admission Regulations 2026
3	Passing Marks for Eligibility	40
4	Regulations	College Regulations on Admission
5	Programme	Bachelor of Science in Artificial Intelligence & Data Science
6	Semester	I
7	NEP Vertical	MAJOR
8	Credit	02
9	Level	U.G.
10	Pattern	Semester
11	Status	New
12	To be implemented from Academic Year	2026-27

Date:

Chairman / Chairperson:

(Dr. Prajakta Joshi)

**SES's L.S. RAHEJA COLLEGE OF ARTS AND COMMERCE
(AUTONOMOUS)**



BOARD OF STUDIES: Information Technology and Data Science

Programme: B.Sc. (ARTIFICIAL INTELLIGENCE & DATA SCIENCE)

Semester: I

Nomenclature of the Course: Foundation of Artificial Intelligence

NEP Vertical: MAJOR

Credit: 02

Total Marks: 50

Academic Year: 2026–27

(As per Choice Based Credit System under NEP 2020)



Unit-wise Syllabus

Unit	Detailed Contents	Andragogy	Hours
I	Introduction to Artificial Intelligence 1. Definition, Scope and Evolution of AI 2. History of AI – Turing Test, Dartmouth Conference 3. Types of AI – Narrow AI, General AI, Super AI 4. Applications of AI in Data Science, Healthcare, Finance, Cyber Security 5. Intelligent Agents – Types, PEAS Representation 6. Problem Characteristics & AI Problem Formulation 7. State Space Representation	Interactive lectures, Concept mapping, Case study discussions, Video-based demonstrations	15
II	Problem Solving & Knowledge Representation 1. Uninformed Search – BFS, DFS, Uniform Cost Search 2. Informed Search – Greedy Best First Search, A* Algorithm 3. Heuristic Functions & Evaluation Functions 4. Constraint Satisfaction Problems 5. Introduction to Knowledge Representation 6. Propositional Logic & Truth Tables 7. Introduction to Machine Learning (Supervised vs Unsupervised Overview)	Algorithm tracing sessions, Board-based problem solving, Scenario-based AI modelling, Group discussion	15

Learning Objectives

1. Understand the foundational concepts and history of AI.
2. Learn intelligent agent architecture and problem formulation.
3. Apply search algorithms for solving structured problems.
4. Understand heuristic reasoning techniques.
5. Gain introductory exposure to machine learning concepts.

Course Outcomes (CO)

CO No.	Course Outcome	Bloom's Level	PSO Mapped
CO1	Describe the evolution and core concepts of Artificial Intelligence	L1, L2	PSO1, PSO3
CO2	Explain intelligent agents and problem formulation techniques	L2	PSO1
CO3	Apply uninformed and informed search algorithms to problem-solving scenarios	L3	PSO2
CO4	Analyze heuristic approaches and constraint-based problems	L4	PSO2, PSO3
CO5	Identify applications of AI in Data Science domains	L2	PSO3

Suggested Readings

Sr. No.	Title	Author / Publication
1	Artificial Intelligence: A Modern Approach (4th Ed.)	Stuart Russell & Peter Norvig / Pearson
2	Introduction to Artificial Intelligence	Elaine Rich & Kevin Knight
3	Machine Learning Yearning	Andrew Ng
4	Artificial Intelligence Basics	Tom Taulli

QUESTION PAPER PATTERN

A) Continuous Evaluation – 20 Marks

Particulars	Marks
Class Test	10
Assignment / Case Study	10
Total	20

(B) Semester End Examination – 30 Marks

Duration: 1 Hour

Duration: 1 Hour		
Question No.	Description	Total Marks
Q1	Attempt Unit I	
	A – Remembering	15
	B – Understanding	
	C – Applying	
OR		
	P – Remembering	15
	Q – Understanding	
	R – Applying	
Q2	Attempt Unit II	
	A – Understanding	15
	B – Applying	
	C – Analysing	
OR		
	P – Remembering	15
	Q – Understanding	
	R – Applying	