

**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: Artificial Intelligence Lab

NEP Vertical: Major

Credit: 01

Total Marks: 25

Academic Year: 2026–27

(As per Choice Based Credit System under NEP 2020)



List of Practical

1. PEAS Description

- Identify and write PEAS description for systems like ATM, Self-driving car, Chess game.

2. State Space Representation

- Represent simple problems such as Water Jug or Vacuum Cleaner problem.

3. Breadth First Search (BFS)

- Implement BFS for simple graph traversal using Python.

4. Depth First Search (DFS)

- Implement DFS using recursion or stack.

5. Simple Path Finding

- Find shortest path in a small unweighted graph using BFS.

6. Basic Heuristic Demonstration

- Implement a simple greedy search on small dataset (e.g., nearest number selection).

7. Truth Table Generator

- Generate truth table for AND, OR, NOT operations.

8. Simple Rule-Based System

- Create rule-based program (e.g., Student grade classification).

9. Mini Chatbot

- Create simple rule-based chatbot using if-else conditions.

10. Comparison Program

- Compare BFS and DFS output for same graph (node visiting order).

Learning Objectives

1. To understand basic AI problem representation.
2. To implement simple search techniques.
3. To apply logical reasoning in programming.
4. To develop simple rule-based AI systems.

Course Outcomes (CO)

CO No.	Course Outcome	Bloom's Level	PSO Mapped
CO1	Represent AI problems using state space approach	Apply (L3)	PSO1
CO2	Implement basic search algorithms	Apply (L3)	PSO2
CO3	Develop simple logical reasoning programs	Apply (L3)	PSO2
CO4	Construct basic rule-based intelligent systems	Analyze (L4)	PSO2, PSO3
CO5	Compare simple search strategies	Analyze (L4)	PSO2

Evaluation Scheme

Continuous Evaluation (Internal – 25 Marks)

Component	Marks
Journal	5
Viva	5
Practical Exam	15
Total	25

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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	Python Lab
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	Semesters	I
7	NEP Vertical	Major (Practical Component)
8	Credit	01
9	Level U.G/PG	U.G.
10	Pattern	Semester
11	Status	New
12	To be implemented from Academic Year	2026-27

Date:

Chairman / Chairperson:

(Dr. Prajakta Joshi)