

CS208	Artificial Intelligence	L	T	P
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Introduction: Definitions and Approaches, History of AI, Philosophical Foundations of AI, Turing's Test, Searle's Chinese Room, Symbolic and Connectionist AI, Concept of Intelligent Agents.

AI Problem Solving: Problem solving as state space search, production system, control strategies and problem characteristics; Search techniques: Breadth First and Depth-first, Hill-climbing, Heuristics, Best-First Search, A* algorithm, Problem reduction and AO* algorithm, Constraints satisfaction, Means Ends Analysis, Game Playing.

Knowledge Representation and Reasoning: Predicate and propositional logic, Resolution, Unification, Deduction and theorem proving, Question answering; Forward versus backward reasoning, Matching, Indexing, Semantic Net, Frames, Conceptual Dependencies and Scripts.

Applications: Introduction to Natural Language Processing, Expert System.

Suggested Readings:

1. S. Russel, P. Norvig, Artificial Intelligence: A Modern Approach, Pearson.
2. E. Rich, K. Knight, Artificial Intelligence, Tata McGraw Hill.
3. N. J. Nilsson, Artificial Intelligence: A New Synthesis, Morgan Kaufmann.