

Course 39. Artificial Intelligence (Web Course)

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ARTIFICIAL INTELLIGENCE

The course will cover basic ideas and techniques underlying the design of intelligent computer systems. Topics include:

Introduction to AI and intelligent agents.

Problem Solving : Solving Problems by Searching, heuristic search techniques, constraint satisfaction problems, stochastic search methods.

Game Playing : minimax, alpha-beta pruning.

Knowledge and Reasoning : Building a Knowledge Base : Propositional logic, first order logic, situation calculus. Theorem Proving in First Order Logic.

Planning, partial order planning.

Uncertain Knowledge and Reasoning, Probabilities, Bayesian Networks.

Learning : Overview of different forms of learning, Learning Decision Trees, Neural Networks.

Introduction to Natural Language Processing.