Exam Topics

- Search
  - BFS, DFS, UCS, A* (tree and graph)
  - Completeness and Optimality
  - Heuristics: admissibility and consistency
- CSPs
  - Constraint graphs, backtracking search
  - Forward checking, AC3 constraint propagation, ordering heuristics
- Games
  - Minimax, Alpha-beta pruning, Expectimax, Evaluation Functions
- MDPs
  - Bellman equations
  - Value and policy iteration
- Reinforcement Learning
  - Exploration vs Exploitation
  - Model-based vs. model-free
  - TD learning and Q-learning
  - Linear value function approx.
- Hidden Markov Models
  - Markov chains
  - Forward algorithm
  - Particle Filter
- Bayesian Networks
  - Basic definition, independence
  - Variable elimination
  - Sampling (prior, rejection, importance)