



BAKER COLLEGE STUDENT LEARNING OUTCOMES

CS4110 Artificial Intelligence
3 Semester Hours

Student Learning Outcomes & Enabling Objectives

1. Discuss basic concepts, strengths and limitations of Artificial Intelligence
 - a. Explain intelligent agents, rationality, and environments
 - b. Discuss advantages of AI vs traditional information processing
 - c. Explain ethics, safety and limitations associated with AI
 2. Apply different AI strategies to create programs that can problem solve
 - a. Describe search strategies, searching in complex environments, and adversarial search
 - b. Apply search algorithms for problem-solving
 - c. Solve Constraint Satisfaction Problems
 3. Explain knowledge representation and planning
 - a. Explain logical agents and first-order logic
 - b. Explore different ways to represent knowledge inside an AI program
 - c. Explain different methods of planning
 4. Analyze the impact of uncertainty on AI strategies
 - a. Use probability to better quantify the uncertainty of a problem
 - b. Explore different methods of decision making from simple to complex
 5. Formulate machine learning technique and their applications
 - a. Create strategies to learn from previous examples
 - b. Explain deep learning and applications
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Big Ideas and Essential Questions

Big Ideas

- Problem solving using Artificial Intelligence
- Knowledge, reasoning and planning
- Uncertainty and reasoning
- Machine learning

Essential Questions

1. How do you quantify a problem to an AI module?
2. What types of ways can you gain and store knowledge inside a program?
3. How do you create an AI program that can make decisions without prior knowledge?
4. Can AI programs learn from past interactions to make better decisions in the future?

These SLOs are approved for experiential credit.

Effective: Fall 2020