

Syllabus

Course

Code: *CSC 450*
Name: *Artificial Intelligence*

Credits

2-2-2-3

Text Books

- 1- Stuart Russell, Peter Norvig, "Artificial Intelligence: A Modern Approach", 3/E, Prentice Hall 2010, ISBN-13: 9780132126847.
- 2- Ivan Bratko, "Prolog Programming for Artificial Intelligence" Addison Wesley 2009, ISBN-13 / EAN: 9780201403756
- 3- George F. Luger, "Artificial Intelligence: Structures and Strategies for Complex Problem Solving", 6th E, Addison-Wesley 2009, ISBN: 0-805-31196-3

Prerequisite:

CSC-321 Design and Analysis of Algorithms

Course Description

This course is an introduction to artificial intelligence (AI). Topics include history and applications, intelligent agent, solving problems by searching, constraint satisfaction, knowledge representation, reasoning, AI programming language.

Objectives:

- Formulate a problem state space for a problem expressed in English
- Select appropriate search algorithm for a problem and solve it using AI programming language
- Understand the basic method of reasoning
- Explain how agent differ from other category of intelligent systems
- Compare and construct the most common models used for knowledge representation and highlighting their strengths and weakness
- Ability to implement AI methods using AI language.

Course Outline

Week	Lecture Topics
1	AI history and applications.
2	Intelligent Agents.
3	Basic Search Strategies
4	Basic Search. Strategies
5	Constraint Satisfaction
6	Advanced Search Strategies
7	Advanced Search Strategies
8	Knowledge Representation.
9	Knowledge Representation
10	Logical Agents
11	Knowledge base reasoning
12	Knowledge base reasoning
13	Reasoning in Uncertain Situations.
14	Review
15	Project presentation

Grading

Assessment/Evaluation:

1. Assignments (5).	(10%)
2. Quizzes (5)	(10%)
3. Midterm-1 Exam.	(10%)
4. Midterm-2 Exam.	(10%)
5. Project	(10%)
6. Lab exam	(10%)
7. Final Exam.	(40%)
Total	(100%)

Method of Teaching:

- Lectures - 15 weeks (2 hrs per week).
- Lab. Works – 15 weeks(2 hrs lab. per week).
- Quizzes
- Home works
- Exams