

CSE 327. Artificial Intelligence: Theory and Practice

Spring 2003

Professor Jeff Heflin

Course Description:

This course will provide a general introduction to Artificial Intelligence (AI). We will discuss what AI is, survey some of the major results in the field, and look at a few promising directions. In particular, we will seek answers to questions such as:

- how do you represent and reason with general-purpose knowledge?
- how can a robot or artificial agent formulate a plan to achieve a task?
- and how can an agent learn in order to improve its behavior or cope with unanticipated situations?

Course Web Page:

<http://www.cse.lehigh.edu/~heflin/courses/ai/>

Prerequisites:

Junior, senior or graduate standing is required. CSE 17 is strongly recommended.

Time and Location:

MWF 1:10 - 2pm, Packard Lab 416

Textbook:

Russell, Stuart and Peter Norvig, Artificial Intelligence: A Modern Approach (*second edition*). Prentice-Hall, New Jersey, 2003. ISBN 0-13-790395-2

	Instructor	Teaching Assistant
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Grading:

Homework	40%
Midterm	20%
Final	40%

Late Work Policy:

Unless a valid written medical excuse from a health professional is provided, late work will be docked one letter grade for each day that it is late.

Schedule:

This class schedule is only a rough guideline and may change depending on the pace at which we complete the material. All reading, homework and project assignments will be announced both in class and on the course web page.

Week of	Topic	Reading
1/13	Introduction and agents	Ch. 1,2
1/20	Search	Ch. 3,4
1/27	Game playing	Ch. 6
2/3	Logic	Ch. 7, 8
2/10	Logic and Prolog	Ch. 8, Ch. 9.1-9.4
2/17	Knowledge representation	Ch. 10
2/24	Uncertainty	Ch. 13, Ch. 14
3/3	Making simple decisions Midterm on 3/5	Ch. 16
3/10	<i>Spring break – No class</i>	
3/17	Planning	Ch. 11
3/24	Planning and Acting	Ch. 12
3/31	Machine learning	Ch. 18, Ch. 19
4/7	Neural networks	Ch. 20
4/14	Natural language processing	Ch. 22, 23
4/21	Perception	Ch. 24