

CSC 498. Intelligent Agents

Fall 2002

Professor Jeff Heflin

Course Description:

Intelligent agents are software programs that can autonomously perform tasks for users. The ideal agent can perceive its environment, communicate with other agents, and take a series of actions to achieve a complex goal. The potential applications of agents are numerous -- including web search assistants, travel advisors, electronic secretaries, and bidders in on-line auctions. Some have even predicted a future in which agent technology is embedded in everyday items, allowing household objects to coordinate actions in order to better serve the home owner. The course will cover the underlying theory of agents, the common agent architectures, the potential applications for agents, and teach students how to construct their own agent systems.

Course Web Page:

<http://www.cse.lehigh.edu/~heflin/courses/agents-2002/>

Prerequisites:

CSC 327 or equivalent

Time and Location:

MWF 3:10 - 4pm, Packard Lab 404

Textbook:

Multiagent Systems: A Modern Approach to Distributed Artificial Intelligence, edited by Gerhard Weiss, MIT Press, 2000. ISBN 0-262-23203-0.

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Office Hours: Tu 10-11am, W 4-5pm, and by appointment

Grading:

Midterm	30%
Homework	30%
Projects	30%
Class presentation	10%

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	Topic	Reading
8/26 – 8/30	Agents overview	Ch. 1
9/2 – 9/6	Agents architectures	Ch. 1 cont.
9/9 – 9/13	Agent communication	Ch. 2
9/16 – 9/20	Distributed problem solving	Ch. 3
9/23 – 9/27	Logic based agents	Ch. 8
9/30 – 10/4 <i>(no class 10/4)</i>	Learning	Ch. 6
10/7 – 10/11	Decision making	Ch. 5
10/14 – 10/18	Computational organization theory	Ch. 7
10/21 – 10/25	Applications	Ch. 9
10/28 – 11/1	Various topics Midterm on 10/30	TBD
11/4 – 11/8	Various topics	TBD
11/11 – 11/15	Various topics	TBD
11/18 – 11/22	Various topics	TBD
11/25 – 11/29 <i>(no class 11/27, 11/29)</i>	Various topics	TBD
12/2 – 12/6	Various topics	TBD