CS161: FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE

Syllabus - Fall 2016

http://ccle.ucla.edu

Instructor: Professor Adnan Darwiche, 4532D Boelter Hall, phone 310-206-5201, email darwiche@cs.ucla.edu. Office Hours: 2:30-3:30pm Wednesday, or by appointment.

Teaching Assistants:
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Text: "Artificial Intelligence: A Modern Approach," by S. Russell and P. Norvig, Prentice Hall, Third Edition, 2010.

Grading: 30% homework, 30% midterm, and 40% final.

Assignments: Weekly assignments; usually released on Thursdays. Late submissions cannot be accepted. In exceptional circumstances, arrangements must be made in advance of the due date to obtain an extension.

Outline: The outline below is tentative and subject to change.

1. Introduction to course, artificial intelligence, and LISP. Chapters 1-2.
2. LISP continued.
3. Problem solving as search. Chapter 3.
4. Systematic search strategies. Chapter 3.
5. Informed search strategies, local search. Chapters 3, 4.
6. Constraint satisfaction. Chapter 6
7. Game playing. Chapter 5.
8. Propositional logic: Representation. Chapter 7.
9. Propositional logic: Inference. Chapter 7
10. First-order logic: Representation. Chapter 8.
11. Midterm exam (tentative).
12. First-order logic: Inference I. Chapter 9.
13. First-order logic: Inference II. Chapter 9.
14. Reasoning under uncertainty. Chapter 13.
15. Belief networks: syntax and semantics. Chapter 14.
16. Belief networks: Inference. Chapter 14.
17. Belief networks: Knowledge engineering.
18. Learning I. Chapter 18.
19. Learning II. Chapter 20.