

CS161: FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE

Syllabus - Fall 2013

<http://courseweb.seas.ucla.edu/>

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

Teaching Assistants:

Doga Kisa (doga@cs.ucla.edu), office hours Thursday 12:30-2:30PM Boelter 2432
Suming Chen (suming@cs.ucla.edu), office hours Wednesday 12:30-1:30PM, 2:00-3:00PM, Boelter 2432

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, typically released on Thursday. Late work 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.
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.