CSCI 561 – Artificial Intelligence, Spring 2014

Instructor: Gérard G. Medioni

Email: medioni@usc.edu Office Hours: 2-3pm, MW Office Location: PHE 212

Department Office Phone: (213) 740 6440

Teaching Assistant: Jatuporn (Toy) Leksut

Email: <u>leksut@usc.edu</u>
Office Hours: TBA
Office Location: TBA

Department Office Phone: TBA

Course Objective:

This course provides an overview of the field of Artificial Intelligence. This has become a very broad field, so we will cover only portions of it.

We will follow the excellent textbook by Russell and Norvig, *Artificial Intelligence*, *A Modern Approach*, 3rd Edition.

Prerequisites:

There are no special prerequisites are necessary, but it is imperative that you have

- Good Programming Skills (you should be comfortable with programming)
- Basic Math Skills
- Knowledge of data structures (lists, trees, ...)

Course Requirements:

You will be evaluated on exams, assignments and projects.

1 mid term exam (22.5% of your grade)
1 end term exam (22.5% or your grade)
2 non-programming assignments (22.5% of your grade)
2 Programming assignments (22.5% of your grade)
Attendance and participation (10% of your grade)

Tentative set of lectures

| Introduction | AIMA 1 |
|--------------------------|---------|
| Intelligent Agents | AIMA 2 |
| Problem Solving & Search | AIMA 3 |
| Constraint Satisfaction | AIMA 6 |
| Uninformed Search | AIMA 3 |
| Informed Search | AIMA 4 |
| Game Playing | AIMA 5 |
| Logical Agents | AIMA 7 |
| First Order Logic | AIMA 8 |
| Inference in FOL | AIMA 9 |
| Planning | AIMA 10 |
| Uncertainty | AIMA 13 |
| Probabilistic Reasoning | AIMA 14 |
| Neural Networks | AIMA 18 |
| Perception (NLP) | AIMA 22 |
| Perception (Vision) | AIMA 24 |
| Philosophy | AIMA 26 |
| | |

Textbooks:

Required textbook : Russell and Norvig, *Artificial Intelligence*, *A Modern Approach*, 3rd Edition

See also http://aima.cs.berkeley.edu/ for additional resources including

Code http://aima.cs.berkeley.edu/code.html
Demos http://aima.cs.berkeley.edu/demos.html

Academic Integrity

The USC <u>Student Conduct Code</u> prohibits <u>plagiarism</u>. All USC students are responsible for reading and following the <u>Student Conduct Code</u>, which appears in the SCampus. Although we encourage discussions among students, all work submitted for the class is to be done individually, unless an assignment specifies otherwise. Some examples of what is not allowed by the conduct code: copying all or part of someone else's work, and submitting it as your own; giving another student in the class a copy of your assignment solution; consulting with another student during an exam. If you have questions about what is allowed, please discuss it with the instructor. Violations of the Student Conduct Code will be filed with the Office of Student Conduct, and <u>appropriate sanctions</u> will be given.