CAP 4630 Introduction to AI. Fall 2013
Instructor: Dr. Fernando Gomez (gomez@cs.ucf.edu)
Office Harris Building 318. Off. Hours: M, T, Th 3 to 3:50 pm

```
Week 1
 Introduction to Artificial Intelligence (AI)
 Historical Perspective
 AI Programming Languages
------------------------------
Week 2
 Lisp
 Basic Operations
------------------------------
Week 3
 Lisp
 Recursion
-------------------------
Week 4
Lisp
Iterative vs. Recursive Solutions
Property Lists
-----------------------
Week 5
Lisp
Functionals
Macros
-------------------------
Week 6
Search Techniques
-----------------
Week 7
Search Techniques (continuation)
-----------------------
Week 8
General Problem-Solving Methods
--------------------------
Week 9
Knowledge-Based Systems
--------------
Week 10
Knowledge Representation
Semantic Networks
---------------------
Week 11
```

```
Knowledge Representation
Frames
Ontologies (CYC, WordNet, ConceptNet)
------------
Week 12
Logic
-------
Week 13
NLP (Natural Language Processing)
---------------------
Week 14
NLP
POS Taggers + Syntax
-------
Week 15
NLP (natural language processing)
Grammars, Semantics
---
Week 16
NLP (concluding)
Learning
-----
```

This course will require programming in Lisp. We will briefly discuss Prolog. First, we will assign simple functions and then we will have two or three projects. These projects could be about any of the following: the implementation of a search algorithm, an expert system, a knowledge representation language and/or a simple English grammar.

Grading: Test 1 25%; Test 2: 25%; Final 30%; Programs + homeworks: 20%. If there is a QUIZ, it would be worth 10% of the grade, in which case the first 2 tests will be 20% each. All projects *must be done individually, unless indicated otherwise.* Students are responsible for all announcements made in class. If a student misses a class, she/he must ask a friend to take notes. Attendance to class is essential for succeeding in the course.

Date of Tests:

```
 Test 1: October 10th (tentative)
 Test 2: About three weeks before Thanksgiving.
 Final:  To be announced by the University.
```

Text Books:*Artificial Intelligence* by George F Luger This books will be used as a reference to the lectures given in class. The home page for the course will contain links to books on Lisp.

Plus and Minus Grades (A- 90-92, B+ 87-89, B 83-86, B- 80-82, C+ 77-79, C 73-76, C- 70-72, D+ 67-69, D 63-66, D- 60-62, F 59-0).