CSCE 4310/5210 Course Outline for Spring Semester 2016

In Class Information:
The class currently meets on Tues. Thurs 10-11:20

Contact Information:
Instructor: Kathleen Swigger
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Office Hours –12:00-2:00 Tues. Thrs. (or by appointment)

Text:
Artificial Intelligence: A Modern Approach by Stuart J. Russell and Peter Norvig…There are several different versions of this book…but they are all pretty much the same.

The book’s home page is: http://aima.cs.berkeley.edu/

There you will find source code for many of the problem sets along with other types of information that might be fun and helpful.

Objective:
This course provides an introduction to Artificial Intelligence. It focuses on both theory and practice in the area. The book, however, provides a unique and interesting approach because of its emphasis on “intelligent agents.” This particular approach provides a unifying approach to the field and, hopefully, helps us better understand the area. --- but we shall see!

Course Outcomes for CSCE 4310
1. Use and create programs that demonstrate understanding of search algorithms: depth first, breadth first, A*, Hill-climbing.
2. Implement programs that demonstrate understanding of two-person games.
3. Demonstrate understanding of knowledge-based systems.
4. Demonstrate understanding of probabilistic systems in decision making
5. Demonstrate basic principles of computing different machine learning algorithms.

Course Web Site
The course's home page is on blackboard

Grading:
Programs/Homeworks/ Labs 40% (Obviously these are not created equal)
Exams – 3 because it’s good to have three 60%

The book as well as the code available from the World Wide Web site emphasizes Common lisp. However, I will not mandate that you use lisp... You can use any programming language that my grader can comprehend, and that he/she can run on one of the Departmental Machines.
**Class Schedule:**
Topics to be covered (subject to change)
1. Introduction to AI
2. Agents and Search - This should be a type of review
3. Exam 1
4. Logic/Predicate Calculus
5. Knowledge Representation
6. Knowledge Systems
7. Bayesian Networks
8. Exam 2 (It may be earlier)
9. Machine Learning
10. Final

**Things to Note before you decide to take this course:**

1. I do NOT allow students to take the final exams early. There are NO EXCEPTIONS.
2. I do NOT allow students to ‘make-up’ quizzes or in-class labs. If you are not here the day that these occur, you will receive an F for that assignment.
3. I do NOT allow students to leave in the middle of the class, unless there is an emergency. If your cell phone rings in the middle of class, I will confiscate it.
4. If you are caught cheating in my class, you will receive an F for the course.

**Exams:** There will be three exams this semester – There is too much material to cover with two exams. The material covered on the exam will be taken from the text, class lectures, and homework. The exam will be announced at least one class period prior to the exam. I generally post my old exams before each exam.

**Labs:** (I HOPE) There will be several labs this semester. These labs will be announced. The labs are intended to show you software/techniques/exercises that can help you better understand the concepts that are being taught at the time.

**Programs and Homework:** Programs and any assigned work are to be posted on the due date, or the deadline time given by the instructor. Hopefully the grader for the class will return the programs in a timely fashion.

**Attendance:** Students are expected to attend each class meeting. I will check your attendance (sometimes) with a “surprise” quiz! This quiz will be counted toward your grade.

**Plagiarism:** All assignments and programming projects should be produced by individual effort. However, I realize that the “problem assignments” may be done with other people. Please indicate that on your homework assignment.

On the other hand, programs should be done individually. Any duplicate solutions, plagiarism, or violations will be dealt with harshly. In cases in which duplicate or near duplicate programs are handed in, a grade of zero will be given to all programs/assignments. Student – But what about ALL the code that is on the Internet….Yes, it is out there. If you use other people’s code, then that code should be acknowledged…just like a paper or talk……

**Americans with Disabilities Act:**
The Computer Science Department cooperates with the Office of Disability Accommodation to make reasonable accommodations for qualified students (cf. Americans with Disabilities Act and Section 504, Rehabilitation Act) with disabilities. If you have not registered with ODA, we
encourage you to do so. If you have a disability for which you require accommodation, please discuss your needs with me after class or submit your written Accommodation Request on or before the second week of classes.

**Difference between graduate/undergraduate courses**

I am one of those teachers who really does try to make a difference between what is expected of the undergraduate students versus the graduate students (although I am always delighted when I find that many of the undergraduate students outperform their “elders”)….The differences will generally be seen in the programming assignments and in the exams. The graduate students will be required to do more…for both programming and the exams.