# **CSE 4308/5360** - Summer 2013 - Syllabus

Course web page: http://vlm1.uta.edu/~athitsos/courses/cse4308 summer2013/

Lecture times: Mon-Tue-Wed-Thu 1:00pm-2:50pm

Classroom: NH 108

#### **Textbook:**

S. Russell and P. Norvig, "Artificial Intelligence: A Modern Approach", second edition (2003) or third edition (2009), Prentice Hall.

#### Instructor:

Vassilis Athitsos

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Office: ERB 623

Office hours: Mon-Tue-Wed-Thu, 3:00pm-4:00pm.

### **Teaching assistant:**

Chris Conly

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Office: ERB 309

Office hours: MWF 4:00pm-5:00pm.

# **Course Description**

### **Contents and Objectives:**

This course gives an introduction to the philosophies and techniques of Artificial Intelligence. AI techniques have become an essential element in modern computer software and are thus essential for a successful career and advanced studies in computer science. Students successfully completing this course will be able to apply a variety of techniques for the design of efficient algorithms for complex problems. Topics covered in this course include search algorithms (such as breadth-first, depth-first, A\*), game-playing algorithms (such as Minimax), knowledge and logic reasoning, planning methods (such as STRIPS and Partially Ordered Planner), probabilistic reasoning, and machine learning.

### **Prerequisites:**

All students are expected to have passed the courses *Programming Languages* (CSE 3302) and *Theoretical Concepts* (CSE 3315) or an equivalent before attending this course.

#### **Textbook:**

S. Russell and P. Norvig, "Artificial Intelligence: A Modern Approach", second edition (2003) or third edition (2009), Prentice Hall.

### **Course Materials:**

Additional course materials such as lecture notes, assignments, and solutions will be available electronically on the course web page. Changes and corrections, if any, will also be announced by e-mail.

### **Computer Access:**

This course will require some programming and all students will have an account on the ACS machine *omega*. If not otherwise stated on the assignment homework assignments can be programmed in the language of your choice but have to compile and run on *omega*. If partial code is provided, however, it will generally be only provided in a limited number of languages. Additional details will be announced in class.

# **Assignments**

There will be several programming and written assignments in this course. Programming assignments have to run on the ACS machine *omega*, unless permission is obtained from the instructor or the teaching assistant. All homework submissions (written and programming) must be submitted via <u>Blackboard</u>. Also, the following class policies will be followed:

- No deadline extensions of the deadline for the entire class. (See syllabus about policy on extensions for individuals, based on emergencies documented in writing).
- No extra credit.

While working with other persons on non-graded example problems from the textbook is a good way to help you develop your understanding and insight into the techniques of problem solving, homework solutions must be your work only. Violations of this will not be tolerated and result in severe penalties for all parties involved, in strict compliance to official UTA policy.

Late submission policy: All assignments are graded out of 100 points. Assignments submitted late will be penalized, at a rate of 2 penalty points per hour. The submission time will be the time shown on Blackboard. Any assignment submitted more than 50 hours late will receive no credit. Exceptions will only be made for emergencies documented in writing, in strict adherence to UTA policy. The best strategy is to aim to submit early, you can always revise your submission till the deadline. If you find yourself in an emergency situation and can not deliver a homework on time, immediately inform the instructor and teaching assistant.

# **Exams**

There will be three exams (two midterms, one final) in this course. Each exam is worth 20% of the course grade. All exams are open-book, and students are free to bring any printed or handwritten material (textbooks, notes, etc.) to consult during the exam.

The final exam will take place on Monday, 08/12/2012, 1:00pm-2:50pm.

# Grading

### **CSE 5360:**

For students enrolled in the graduate section CSE 5360 the homework assignments, as well as the exams, may contain additional problems which are not required for students enrolled in CSE 4308.

### **Grading Policy:**

Exams and homework assignments will contribute to the overall grade in the following way:

Written Assignments	15%
Programming Assignments	25%
Midterm 1	20 %
Midterm 2	20 %
Final Exam	20 %

Any request for re-grading (for an assignment or exam) must be made within three days of receipt of that grade.

# **University Policies and Services**

### **Grade Grievances:**

Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current undergraduate catalog.

# **Drop Policy:**

The standard UTA drop policy applies to this course. Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic

advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/ses/fao).

### **Americans With Disabilities Act:**

The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at <a href="https://www.uta.edu/disability">www.uta.edu/disability</a> or by calling the Office for Students with Disabilities at (817) 272-3364.

## **Academic Integrity:**

All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, paragraph 2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

### **Student Support Services:**

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

### **Electronic Communication:**

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

### **Student Feedback Survey:**

At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.