CS 7910 Topics in Intelligent Systems
Fall 2010 Course Information
Instructor:
Dr. Vicki Allan, Vicki.Allan@usu.edu http://digital.cs.usu.edu/~allanv/cs7910/cs7910.htm
Office/Phone:
429 Old Main, 797-2022
Office Hours:
MWF 11-12, 4-5. Other hours by appointment. (Send Email to set up.)
Objectives:
1. Prepare you to do research. This will be accomplished by having you read current literature and discuss it as a group.
2. Be able to intelligently converse about topics in game theory,
3. Become an expert in one area of game theory (which is new material for you).
Complete a project in this area.

Project:
A major effort in this class is to produce project. The goal of the project is to try to do something novel, rather than merely a survey of existing work. Projects may be theoretical, experimental (based on simulations), experimental (based on real-world data), a useful software artifact, or any combination thereof. Creativity is encouraged. The only real constraint is that it has something to do with the material of the course.

Topics:
The topics covered will be varied, but have some relationship to game theory.
The course will be divided into roughly two halves. The first half is primarily a crash course in game theory, social choice, and mechanism design (where we will consider some computational aspects along the way). In the second half of the course, we will consider a few more basic topics for which we didn't have time in the first half, as well as more advanced topics. During this half of the course, you should also be working intensively on your project.

Prerequisites:
Prerequisite: To facilitate getting everyone to the same level quickly, I have provided links to online lectures for an undergraduate level game theory course at Yale. Since this is a PhD course, we can't devote a lot of time to covering the basics in class, but the basics are absolutely necessary. For some of you, the undergraduate lectures will be mostly review. For others, it will be entirely new material. Either way, I think you will benefit from looking at the undergraduate material.

The lectures have a transcript, a pdf of the black board work, and a video of the class itself. The transcript alone is unsatisfying, as you can't see what he's talking about. The way I liked to study the material was to view the video while having the blackboard pdf available. That way, I didn't need to try to copy down the examples he was giving. Sometimes the camera moves away from the blackboard – but you need the pictures to refer to.

Our class lectures will not be synchronized with the Yale lectures – but viewing the lectures will enhance the basic understanding and motivation of game theory.
Tardiness

There is no reason to come to this class late. When you come to class late, every person in the room is distracted by your entrance (including your professor). You miss important material. You are saying to your professor, "My time and my schedule are more important than what you have to teach me."! On the job, if you don't come to work or come late, you will be reprimanded. Come to class and come on time! It is good practice for the real world.

Cell Phones:

Please turn off cell phones before coming to class. When a cell phone goes off, it disturbs your teacher and everyone else in the class. The penalty for allowing your cell phone to go off in class is that you will be expected to bring treats for the class the next period!

Text: We will use current articles and chapters from online texts as our text.

Preparation:

Preparation is necessary for learning. For this class, preparation includes having listened to the videos before coming to class, attending class regularly (90% of the time), coming on time, remaining focused until class is dismissed, asking timely questions, trying problems at your seats when directed to do so, answering questions when called upon, completing homework questions, paying attention during lecture, and reading appropriate text material before coming to class.

Homework: There will be a variety of graded assignments: in-class exercises, written homework, article reviews.

Exams:

There will be two midterm exams. In place of the final exam, you will (a) present your interactive project, (b) you will work through the interactive projects of others in the class.

Rough Grading:

- Participation 50
- Assignments 100
- Exams 200
- Project 300
- Total 550

I generally figure 90-100% is an A, 80-90% is a B, 65-80% is a C, 50-65% is a D, and below 50% is an F. However, grades vary (up or down) somewhat depending on the difficulty of assignments and tests. As a graduate student in this department, you must maintain a 3.0 GPA in all your courses (not just those on your program of study). However, this does not mean that only A and B grades will be given for this course. I would expect that most of you will earn A and B grades, but you will be given the grade you earn. Falling below a 3.0 cumulative GPA creates serious problems for you regarding your standing in this department. Take every precaution to guarantee that you will succeed in your coursework.

Incompletes:

According to university policy, incompletes are not to be given for poor performance. There will be no incompletes given except for conditions beyond the student's control. Such conditions have to have written documentation. The term "conditions beyond the student's
control" includes (1) incapacitating illnesses that prevent a student from attending classes for a period of at least two weeks; (2) a death in the immediate family; (3) financial responsibilities requiring a student to alter course schedule to secure employment; (4) change in work schedule as required by employer; or (5) other emergencies of this nature. When an incomplete is given, it is anticipated that the remaining work will be finished within two or three weeks. If the course must be retaken to make up the work, an incomplete is not appropriate. In case of emergency, there are provisions to permit a student to withdraw (grade of W) from a course after the regular drop period.

**Disabilities:**
If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center, preferably during the first week of the course. Any requests for special considerations relating to attendance, pedagogy, taking of examinations, etc. must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative formats—large print, audio, diskette or Braille.

**Class Fee:**
Associated with this class is a class fee. The monies from this fee are used to maintain lab facilities for the class, purchase software and licenses, and supervise the lab. In some cases, students may have their own computing equipment, and thus feel that they do not need to use the lab. However, the lab musts be maintained regardless of an individuals use of it, and thus the fee is charged to all registered for the class. If you have questions or concerns about this fee, please see the department head.

**Add Date:** The last day to add this class is the 15th day of the semester. Attending this class beyond that date without being officially registered will not be approved by the Dean's Office. No assignments or tests of any kind will be graded for students whose names do not appear on the class list.

There are several reasons for this rule. Students who attend classes without registering have an unfair advantage over those who are registered. The unregistered student can chose not to register if their academic performance is poor. There will be no record that the student "withdrew." The registered student must drop the course along with the ramifications of small or no refund in tuition and a possible "W" on his/her transcript. The university does not receive the headcount credit from the State for students who add any class after the 15th day (September 20th). We lose a significant amount in support funding for those students not registered prior to day 15. Students who attend classes without registering/paying are utilizing campus resources even though they have not paid tuition and fees. Students who are attending classes but not enrolled in them are not subject to the Student Code of Conduct. Thus, we are asked not to allow students to "sit in" on classes for which they are not enrolled.

**Drop Date:** The last day to drop classes (with the "W" notation on transcript) is shown online. If you are considering dropping, you should talk to me about the desirability of such a decision. Sometimes students drop when they would actually do well with a different strategy. Other times students who should drop, do not. It is wise to consult your instructor in your decision as she may have a different reading on your situation.