

# CS 6100 Multi Agent Systems

## Fall 2008

### Course Information

#### Instructor:

Dr. Vicki Allan, [Vicki.Allan@usu.edu](mailto:Vicki.Allan@usu.edu), 429 Old Main, 797-2022

#### Office Hours:

MWF: 8:30-9:30 a.m., 3:30-4:30 p.m.

Other hours by appointment. (Send Email to set up.)

#### Prerequisites:

Prerequisite: You are expected to be able to program well in C++ or Java. **We will use Java**, but it will be easy from a C++ background. **I realize that forcing you all to use Java may be an inconvenience. However, I find that things go better if I can give you some starter code to eliminate much of the “busy work” required and let you concentrate on the fun stuff. I cannot do that if everyone is programming in a different language.** Some appreciation for parallelism is expected. You need to have had an operating systems class.

#### Tardiness

There is absolutely no reason to come to this class late. I feel very strongly about this. This has been a problem in the past and I will not allow it! 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, you will be fired. If you 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 whole class the next period!**

#### Texts:

*An Introduction to Multiaгент Systems*, Wiley Press, Wooldridge, 2002 (required)

Multiagent Systems: A Modern Approach to Distributed Artificial Intelligence, Edited by Gerhard Weiss, third printing, MIT Press, 1999. (Optional)

#### Written Homework:

*Written homework* (but not programming assignments) may be done independently or with one or two other people. Since programming has a high overhead in terms of program entry and debugging, all important topics in this course cannot be covered via programming projects. Written homework exercises allow students to learn important material without a high time investment. Although the point value is low, the benefits are great.

#### Preparation:

Preparation is necessary for learning. For this class, preparation includes 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. In an effort to get you to come to class prepared, discussion points will be awarded for participation on randomly selected days. Be sure to look at the code of conduct statement <http://www.cs.usu.edu/display.html?id=10034>.

#### Best and Quest:

To facilitate discussion, fairly frequently you will be asked to

- (a) summarize the best ideas in the reading in 2-3 paragraphs
- (b) ask three INTERESTING questions regarding the material

This will be turned in via Eagle before class and will be termed a "Best and Quest"

**Programming Assignments:** Programming assignments are due at midnight on the date posted. I like to be flexible about due dates at the graduate level. Thus, you are allowed to turn in one assignment up to a week late without penalty. Any other late assignment will be docked 10 % per day it is late.

We will be using Eagle to turn in programming assignments. See <http://eagle.cs.usu.edu>. Create an account using this web address so that you can get email and grades from me.

Program write-ups are available from the class homepage and will not be handed out in class. The class homepage is at <http://www.cs.usu.edu/~allanv/cs6100/cs6100.htm>

**Submit a zip file containing the following:**

A file named REPORT which answers any report questions asked.

A file named README which gives running instructions, tells the user what system was used to compile the program, and explains any special settings required.

The complete project needed to run the program – normally in the form of a jar file.

Each assignment is to be your own work. To the extent you copy the framework or the idea from any source (including the book), be sure to acknowledge that source. Undoubtedly, some of the assignments we do will exist somewhere on the web. Copying is *not* permitted.

Programming assignments are graded giving half the points for correct output and half the points for complete, well designed, and documented code. I rarely alter the due date of an assignment, and will not do so unless all students can be informed of the change at least two days before the original due date. Any changes in date would be announced via electronic mail.

**Exams:** There will be midterms held October 10th and November 12th. The final is Wednesday, December 10<sup>th</sup>, 11:30-1:20.

**Quizzes:**

There may be unannounced quizzes throughout the semester. They will normally be given within the first five minutes of class. There is no make-up for quizzes.

**Rough Grading:**

Assignments	200
Quizzes	(40)
Exams	200
Project	110
Total	510

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.

**Class Project:**

You will write a research paper using current articles. The project may or may not include coding. The major reason for doing the project is to study current articles. See the web for a more complete description of this project.

**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 an 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. There are provisions in case of emergency to permit a student to withdraw (grade of W) from a course after the regular drop period when it is not feasible to give an I.

**ADA Statement:** Students with physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, 797-2444 voice, 797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.

**Class Fees:** Associated with this class is a fee of \$25. 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 must be maintained regardless of individual's use of it, and thus the fee is charged to all registered for the class. If you have questions or concerns about the 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 choose 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 15th). 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 (without any notation) is Sept 15th. The last day to drop classes (with W notation) is October 28th. The last day to drop classes (with WF notation) is Nov 13th. If you find it necessary to drop the class, please notify me immediately.

**MSDNAA:** The Computer Science Department is a member of the Microsoft Academic Alliance (MSDNAA), and specifically what is now called the Developer Academic Alliance. Through this program, students in CS courses can obtain and use a large number of Microsoft's operating systems and software packages. If you are interesting in **downloading** any of this software for your use, please follow the directions found at <http://www.cs.usu.edu/elms.html>.