

# Syllabus

## CS582—Modeling and Simulation II, Spring 2011

### MW 12:45-2:05, CS Conference Room

**Instructor:** Dr. Glenn Cox      **Email:** gcox@cs.uah.edu  
**Office:** N341 / 824-6433      **Class page:** Click "CS582" at [www.cs.uah.edu/~gcox](http://www.cs.uah.edu/~gcox)  
**Office Hours:** TH 3:30-5:30 (or by appt)

**Description:** Advanced techniques in modeling and simulation, focusing on the development and application of real-time, high-performance, and distributed simulations.

**Class Prereqs:** CS581

**Text:** Required: IEEE Std 1278, IEEE Std 1516, technical papers. Additional documentation and standards to be provided.  
 Supplemental reference: Fujimoto, *Parallel and Distributed Simulation Systems*, 2000

<b>Grading:</b>	Project .....	35%	90-100 A
	Technical Report.....	25%	80-89 B
	Class Presentation.....	25%	70-79 C
	Final exam .....	25%	60-69 D
			< 60 F

**Topics to be covered (subject to revision):**

- Geographically Distributed Simulation
  - World reference
  - Data Management and distribution
  - Dead reckoning
  - Time Management in Distributed Simulations
  - Protocol-based methods (DIS)
  - Infrastructure-based methods (HLA)
- Live / Virtual / Constructive systems
  - Real-time modeling
  - Interoperability (TENA)
  - Hardware-in-the-loop integration
- Parallel simulation
  - Architectures
  - Conservative time management
  - Optimistic time management
- Topics of class interest as time permits

# UAH COMPUTER SCIENCE DEPARTMENT POLICIES AND PROCEDURES

## 1. Responsibilities of the teacher

- Provide a detailed syllabus. This syllabus should list office hours, course objectives, textbooks, references, prerequisites, and grading policy/method of assessment.
- Come to class well prepared, on time, and make full use of the class time.
- Provide timely and adequate feedback on grades. Return graded material promptly.
- Conduct final exam at the time designated in the class schedule. Never post grades.
- Not assign new work (i.e. not listed on syllabus) that is due in last two weeks of classes.
- Avoid leaving the examination room without a proctor. Provide paper for exams.
- Make reasonable use of the assigned textbook.
- Check students have proper prerequisites. Instructor does not waive assigned prerequisites.
- **Report all incidences of academic misconduct to the Department and VP for Student Affairs**

## 2. Responsibilities of the student (see also, Student Handbook Article II)

- 1) Come to class with proper prerequisites, well prepared, on time, and make full use of class time.
- 2) Provide adequate notice of anticipated absences and take full responsibility for finding out about missed work, announcements, and assignments.
- 3) Submit assessment material on time and submit **only your own work**. (see integrity)
- 4) Do not allow other students to copy your work.
- 5) Read and understand the syllabus and follow announced policies.

## 3. Integrity

We expect CS instructors and students to conduct themselves in a professional manner. Students are subject to all the provisions in the UAH Code of Student Conduct, which is available free from the Office of Admissions and Records. Information on plagiarism and other forms of misconduct is presented in the **Student Handbook Article III**. *Departments are obliged to report all student misconduct to the Office of Student Affairs.*

## 4. Complaint Procedure

If you have difficulties or complaints related to this course, your first action should be to discuss them with your instructor. If such a discussion would be uncomfortable for you or fails to resolve your difficulties, you should ask for a meeting with the Chair of the Computer Science Department in Technology Hall N-300, [info@cs.uah.edu](mailto:info@cs.uah.edu), telephone 824-6088.

## 5. Students with disabilities

Your instructor would like to hear from anyone who has a disability that may require a modification of seating, testing, or other class procedures. Please see instructor after class or during office hours to discuss appropriate modifications. You should also contact Student Development Services in UC 113 (Ph. 824 6203) for further assistance.

## 6. Student computer account

Students enrolled in any CS course are entitled to an account on the departmental computer network. Use of such an account is subject to departmental and university policies. To apply for an account, and see the current policies, go to the departmental web site at <http://www.cs.uah.edu/account/>

## 7. Examination policy

In response to past student complaints about problems during examinations, the Computer Science Department has developed the following guidelines for in-class examinations in all courses.

1. Come to the exam prepared to complete it without a break. If you think you will need a break, please inform the proctor before the exam if possible.
2. Do not communicate with other students. Talk only to the instructor.
3. Whenever you leave the exam room turn in your exam.
4. Use only the paper provided by the instructor for all writing.
5. If assigned a specific seat, remain in that seat.
6. Unless specifically permitted by the instructor, use no books or other reference materials. Do not bring calculators, computers, pocket-organizers, cell phones, pagers, or other electronic devices to the exam.