Course Syllabus

Course Information
Number: EECS 589
Title: Robotics II

Professor Contact Information
Professor: Dr. Gregory Lee
Office: Glennan 516
Email: leegs@case.edu
Phone: (216) 368-4079

Preparation & Concurrent Enrollment
Preparation: EECS 489

Course Description
Survey of research issues in robotics. Force control, visual servoing, robot autonomy, on-line planning, high-speed control, man/machine interfaces, robot learning, sensory processing for real-time control. Primarily a project-based lab course in which students design real-time software executing on multi-processors to control an industrial robot.

Student Learning Objectives
Students will learn about the state of the art in autonomous manipulators by participating in the community outreach portion of the software track of the DARPA ARM program. The class will create a system to complete the tasks in the Phase I Challenge of the DARPA ARM program. Academic articles assigned by the professor, and later by articles suggested by students will provide students with the necessary knowledge. Formal project management techniques, documentation and knowledge dissemination are part of the course.

Textbooks and Other Materials
Required readings of academic articles available from the Kelvin Smith Library will be assigned during the semester. While not required, the following are exceptional resources.


Academic Calendar

**Significant Dates**
- Exam: February 9, 2011
- Document: March 21, 2011
- Final: 12:30-3:30 May 3, 2011

**Holidays & Breaks:**
- MLK Day: January 17, 2011
- Spring Break: March 7, 2011-March 11, 2011

Grading

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Course & Instructor Policies

*Email*

Email must be sent from your Case email account to the Case email address of the professor (or T.A.). Please allow one full academic day for a response to any email correspondence. Email requests to excuse tardiness or late work must show a time stamp from the Case email server prior to the relevant deadline. All correspondence sent to student through Case email is assumed read within 18 hours.

*Assignments*

Assignments must be submitted to the professor at the beginning of class on the due date. Incomplete and/or late assignments will not receive a credit. Exceptions will be granted for extreme circumstances only.

*Exams*

Students must arrive punctually and ready for written exams. Students arriving late to an exam must be prepared to take the exam before entering the room. Tardy students must quietly take a seat at a seat near the entry and wait for the professor to provide further instructions. Rules for particular exams will be available at least one week prior to the exam date.

*Rescheduling Exams*

Exams will only be rescheduled for reasons related to university business prior to the original exam date or under extreme circumstances. To reschedule an exam missed due to illness, a student must produce a note from his or her doctor stating that the student was unable to attend the exam and must include the doctor’s name and telephone number.

*Extra Credit*

No extra credit will be given.

*Attendance and Participation*

Attendance is required and is a component of the class grade. This course depends on student participating together as a team inside and outside of class. Tardiness and absence detracts from the learning of the entire class.
Standards of Conduct

Conduct that is subject to university disciplinary action includes the following:

1. Interference with freedom of speech or movement, or intentional disruption or obstruction of teaching, research, administration, or other functions on university property
2. Any actual or threatened physical harm or mental abuse of any person on University premises or at functions sponsored or supervised by the University
3. Failure to comply with the directions of university officials, instructional or administrative, acting in performance of their duties
4. Theft or vandalism of University property or that of a member of the university community or campus visitor
5. All forms of dishonesty, including cheating; plagiarism; knowingly furnishing false information to the university; forgery; and the alteration or misuse of University documents, records, or instruments of identification
6. Falsification, distortion, or misinterpretation of information before a hearing body
7. Unauthorized carrying or possession on university premises of firearms or of any weapon with which injury, death, or destruction may be inflicted
8. Violations of law on University premises or in connection with university functions
9. Violations of published university rules and regulations

Academic Integrity

All forms of academic dishonesty including cheating, plagiarism, misrepresentation, and obstruction are violations of academic integrity standards. Cheating includes copying from another's work, falsifying problem solutions or laboratory reports, or using unauthorized sources, notes or computer programs. Plagiarism includes the presentation, without proper attribution, of another's words or ideas from printed or electronic sources. It is also plagiarism to submit, without the instructor's consent, an assignment in one class previously submitted in another. Misrepresentation includes forgery of official academic documents, the presentation of altered or falsified documents or testimony to a university office or official, taking an exam for another student, or lying about personal circumstances to postpone tests or assignments. Obstruction occurs when a student engages in unreasonable conduct that interferes with another's ability to conduct scholarly activity. Destroying a student's computer file, stealing a student's notebook, and stealing a book on reserve in the library are examples of obstruction.

The vitality of academic integrity is dependent upon the willingness of community members to confront instances of suspected wrongdoing. Faculty have specific responsibility to address suspected or reported violations as indicated [in the Case Student Handbook]. All other members of the academic community are expected to report directly and confidentially their suspicion of violation to a faculty member or a dean or to approach suspected violators and to remind them of their obligation to uphold standards of academic integrity.
**Email Use**
Official communications from the University may be sent electronically using the student's University-assigned email address. The University expects that students will read such official University communications in a timely fashion. Students who choose to forward email from their University account to another email address remain responsible for receiving and reading official University communications.

**Disability Resources**
Case Western Reserve University is committed to providing all students (see [Student Handbook]) with opportunities to take full advantage of the university's educational programs. We recognize that students with documented disabilities may need assistance or accommodations in order to achieve this objective.

Students are never obligated to self-disclose their disability to Disability Resources, other staff members or faculty. However, students with disabilities who wish to obtain accommodations, auxiliary aids and/or services, must self-disclose their disability and direct their request(s) for accommodation(s) to the office of Disability Resources in Educational Services for Students (ESS).

Disability Resources  
Educational Services for Students  
Sears Building room 470  
10900 Euclid Ave  
Cleveland, OH 44106  
(216) 368-5230  
disability@case.edu