CSE 477: Web Application Architecture and Development

Spring Term 2017

Course Information

Fundamentals of World Wide Web (WWW) programming, including protocols, client-server interaction, markup languages, client- and server-side programming, databases, and interface design. Development of WWW sites with browser-based interfaces to remote databases. Students will incorporate scaling, throughput, and latency considerations in the development of widely-distributed systems.

Objective: Students completing this course are expected to be able to:

► Understand the unique aspects of web application design.
► Work in resource sensitive and resolution variant environments.
► Apply common patterns in web development.

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Phone: 353-6488
Office Hours: 1pm-2pm Mon, Wed, and Thu and by appointment.
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Michael Langford, micklangford@gmail.com

Schedule: Course is online, there are no schedule class meetings.


Prerequisites: CSE 320 or CSE 331 or CSE 335.

WWW: Information about the class will be posted at:
http://www.cse.msu.edu/~cse477/.

Privacy: Electronic conversation via email, bulletin boards, or any of the angel features, is different from verbal communication because it retains the identity of the participant. In this course, all participants will have access to a list of names and e-mail addresses of other course participants. Participants in the course will be able to send bulk e-mail to all other participants.

Exams: This course will include a practical examination. The exam will be an individual assignment you will be given a limited time to complete. The exam is not currently scheduled, but can be expected to occur in the latter third of the semester.

Step Assignments: The primary content of the course is covered in what I call Step Assignments. Most weeks there will be a tutorial/programming assignment that must be completed during that week. Some step assignments will include quizzes and questions that must be answered as well as programming assignment steps. Step assignments may overlap the projects.
Projects: 3 projects will be assigned during the course of the term. These assignments will be individually graded and some project work may be reflected in step assignment grades. Step assignments are synchronized to the projects. The projects will be group projects.

Grading: Grade components are indicated on the grading page on the course website. See https://facweb.cse.msu.edu/cbowen/cse477/lib/grading/grades.php for details.

Final grades will be based on the scale:

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<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>4.0</td>
<td>90%+</td>
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<tr>
<td>3.5</td>
<td>85%</td>
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<tr>
<td>3.0</td>
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Grades are rounded to the nearest integer, so an 89.5 is a 4.0.

Extra credit: There may be limited opportunities for extra credit. I do also make alternative incentives available for exceptional performance and competitive success. I also have on occasion assigned optional loss abatement questions.

Academic Honesty: Article 2.3.3 of the Academic Freedom Report states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, the College of Engineering adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site: www.msu.edu.) Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the http://www.allmsu.com web site to complete any course work. Students who violate MSU rules may receive a penalty grade, including--but not limited to--a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also http://www.msu.edu/unit/ombud/honestylinks.html)

That’s the university policy. My specific policies are as follows: You may discuss individual assignments with other students, but the assignment must be entirely your own work. Plagiarism just makes me mad! All work turned in must be your own. If you borrow or adapt software from a textbook or from source code that is obviously public, you must treat this as a quotation or paraphrase, acknowledging the source in the heading or the program module.

This class is extraordinarily easy to cheat in. Since all assignments must be accessible to the web server, they will necessarily be accessible to other students. Please avoid this temptation. We will deal with instances of academic dishonestly very severely. Any attempt to hack the course web site (bypassing security, spoofing the quizzes, etc.) will be grounds for immediate expulsion from the course and possible criminal charges.
You may discuss assignments in general terms with your classmates, the course staff, or the instructor, but you are not permitted to receive solutions from others or to read or copy part or all of another person's solution to a problem.

Disabilities: Students with disabilities should contact the Resource Center for Persons with Disabilities to establish reasonable accommodations. For an appointment with a disability specialist, call 353-9642 (voice), 355-1293 (TTY), or visit MyProfile.rcpd.msu.edu.

Commercialization: Commercialization of lecture notes and university-provided course materials is not permitted in this course.

Religious Holidays: You may make up course work missed to observe a major religious holiday only if you make arrangements in advance with the instructor.

Required Activities: To make up course work missed to participate in a required activity for another course or a university-sanctioned event, you must provide the instructor with adequate advanced notice and a written authorization from the faculty member of the other course or from a university administrator.

Attendance: Students whose names do not appear on the official class list for this course may not attend this class.

Disruptive Behavior: Article 2.3.5 of the Academic Freedom Report (AFR) for students at Michigan State University states that "The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned." Article 2.3.10 of the AFR states that "The student has a right to scholarly relationships with faculty based on mutual trust and civility." General Student Regulation 5.02 states that "no student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . .) such that the function or service is obstructed or disrupted. Students whose conduct adversely affects the learning environment in this classroom may be subject to disciplinary action through the Student Faculty Judiciary process.

The course schedule is subject to change with appropriate notice. Dates for all assignments will be indicated on the class web site.