EE461L – Software Engineering and Design Laboratory
COURSE SYLLABUS

Spring 2016

Professor:
Dr. Meiru Che
Email**:** meiruche@utexas.edu (the best way to reach me if not in office hours).
Office: POB 5.142
Office hours: TTH 11:00am-12:15pm, or by appointment

Time and Location:
Lectures will be TTH from 12:30pm-2:00pm in CPE 2.212. Lab sections meet for three hour blocks on Monday in ECJ 1.322.

Teaching Assistants:
Yanfeng(Kevin) Zhao
Email: kevzsolo@gmail.com
Lab Sections: 16515, 16520
Office hours: Monday 10:30am-12:00pm, Thursday 2:00-3:30pm

James Yao
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Lab Sections: 16510, 16525
Office hours: Tuesday 2:00-3:30pm, Wednesday 10:00-11:30am

Course Description:
This course focuses on providing hands-on experience in designing and developing large-scale software systems. Specifically, the course studies tools and techniques that enable large-scale software development. Specific topics include version control systems, design and modeling tools, build automation, testing tools, tools for debugging and finding bugs, object-oriented design and analysis, design patterns, and refactoring.

Prerequisites:
EE422C (or EE322C) or CS 336 with a grade of at least C-; credit with a grade of at least C- for M325K.

Course Materials:

All course materials will be made available through the course's Canvas site. These materials are shared for the sole purpose of meeting the course objectives, and access to the materials should be restricted to registered students in the course. Sharing or distributing lecture notes or other course-specific materials in any other way is not approved and is a violation of both the University of Texas Honor Code and, in some cases, copyright law.

Recommended Texts:
- E. Freeman et al. Head First Design Patterns (First Edition).
- D. Pilone. UML 2.0 Pocket Reference, O'Reilly Media, 2006 (Revised Edition).
- A. Zeller and J. Krinke. Essential Open Source Toolset: Programming with Eclipse, JUnit, CVS, Bugzilla, Ant, Tcl/Tk and More, Wiley, 2005 (First Edition).
- J. Bloch. Effective Java, 2008 (Second Edition).

Evaluation and Grading:

There will be weekly assignments in the laboratory section. You should be able to complete them during your lab session time. At times, these assignments may result in something that will be submitted for grading; at other times your grade will simply be a "participation" grade recorded by the lab TA. For this reason, attendance in your lab section is mandatory. These lab assignment ("tutorial") grades will be **20%** of your final grade.

Throughout the semester, you will work in a team on an extensive software engineering project. There will be several milestones, presentations, and deliverables for this project; in total, this project is **30%** of your final grade. It is not necessarily the case that all members of a given team will receive the same project grade. Specifically, the project grade will be determined by the following components:

- Project proposal (written) – 15%
- Project proposal presentation (oral) – 15%
- Project implementation progress presentation (oral) – 15%
- Project demonstration (oral) – 20%
- Project final report (written) – 15%
- Project peer evaluations – 20%

Throughout the semester, there will be homework assignments that may require a variety of written and programming responses. In some cases, these assignments may optionally be done in (small) teams. When these assignments are done in teams, all team members submit a single response, and everyone will receive the same grade. In total, these homework assignments will be **15%** of your final grade.

The course will have two midterm exams: each midterm will be **15%** of your final grade.

Class participation will be **5%** of your final grade.

The grade you are given on an exam, an assignment, or as your final grade, is not the starting point of a negotiation. It is your grade unless a concrete error has been made. Do not come to see me to ask for a better grade because you want one or you feel you deserve it. Come only if you can document a specific error in grading or in recording your scores. Errors can certainly be made in grading, especially when many students are involved. But keep in mind that errors can be made either in your favor or not. So it's possible that if you ask to have a piece of work re-graded your grade will go down rather than up. **Re-grade requests will only be honored for two weeks after the assignment is returned. This is defined as the date the assignment grades are released on Canvas. Please pay attention to your assignment grades in Canvas, and please respond promptly to any emails sent to you by the instructor or TAs.**

Remember that the most important characteristic of any grading scheme is that it be fair. Keep this in mind if you're thinking of asking, for example, for more partial credit points on a problem. The important thing is not the exact number of points that were taken off for each kind of mistake. The important thing is that that number was the same for everyone. So it can't easily be changed once the grading is done and the exams or assignments have been returned.

Final Grades: Final grades will be assigned according to the following standard criteria:

Final Average	Letter Grade
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Final class grades will be calculated to 2 decimal places and rounded to the nearest integer. 89.49 is a B. 89.50 is an A. The line has to be drawn somewhere, and no special allowances will be made for students whose final average falls near, but below the cutoff. There is a possibility that the final grade cutoffs will be lower than the criteria discussed above, but this will not be determined until the end of the semester.

I reserve the right to alter the criteria above to the benefit of the students.

Nonacademic explanations for poor class performance will have no bearing on the assignment of grades.

Assignments

All assignments will be submitted electronically via Canvas. Every assignment will have a clear due date. No late assignments will be accepted.

Collaboration:

Plagiarism and other forms of cheating will be dealt with severely. This includes using code downloaded from the Internet without attribution or without adhering to the code's distribution license. Please be sure to adhere to the stated collaboration plans for each assignment.

Course web page:

Course materials (e.g., the syllabus, lecture notes, assignments, etc.) and grades will become available via postings on this course's Canvas web page as the semester progresses. These will be the main sources of current class information. Please check this page regularly.

Attendance:

Attendance is expected. Whether you come to class or not, you are responsible for keeping up with what happens in class. If you miss a class (other than for illness or an emergency), it is not reasonable for you to expect me to repeat the material that was covered in the class that you missed just for you. This applies both to the content of the class as well as to announcements about class policies, events, deadlines, etc. Students can expect a lower letter grade if they miss too many lectures.

Use of email:

In general, we will use Piazza for course communications. You cannot expect to get last-minute help on assignments by email either from me or from the TAs. More generally, you cannot expect to get detailed answers to technical questions by email. Students are encouraged to discuss important matters in person, typically during office hours. If you must send an email, spend extra time to ensure that you are both brief and clear. Please include your name in the "From:" line of the email message, not just your email address. Email is a valuable tool for communicating. But be sure to use it properly, and follow the rules of good email etiquette (e.g., no flaming, spamming, etc.). Although it's easy for you to dash off an email question, it takes time to answer it. In general, you should not ask email questions to which you can find the answer somewhere else (e.g., class notes, web page).

OTHER COURSE RELATED POLICIES

ACADEMIC DISHONESTY (cheating): The University and the Department are committed to preserving the reputation of your UT degree. To guarantee that every degree means what it says it means, we must enforce a strict policy on academic honesty: Every piece of work that

you turn in with your name on it must be yours. As an honest student, you are responsible for enforcing this policy in three ways:

1. You must not turn in work that is not yours, except as expressly permitted by me. **Specifically, you are not allowed to copy someone else's program code.** This is plagiarism.
2. You must not enable someone else to turn in work that is not his or hers. Do not share your work with anyone else. Make sure that you adequately protect all your files. Even after you have finished a class, do not share your work or published answers with the students who come after you. They need to do their work on their own.
3. **You must not allow someone to openly violate this policy because it diminishes your effort as well as that of your honest classmates.**

Students who violate University rules on scholastic dishonesty in assignments or exams are subject to disciplinary penalties, including the possibility of a lowered or 0 grade on an assignment or exam, failure in the course, and/or dismissal from the University. Changing your exam answers after they have been graded, copying answers during exams, or plagiarizing the work of others will be considered academic dishonesty and will not be tolerated. Plagiarism detection software may be used on the programs submitted in this class. If cheating is discovered, a report will be made to the Dean of Students recommending a course grade of 'F' for all involved in the incident.

LEARNING DISABILITIES: If you have a learning disability that requires special attention, either during class or during an exam, please give me a letter from the Dean of Students describing what needs to be done. You should do this during the first week of classes. (The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641.)

RELIGIOUS HOLY DAYS: A student who is absent from an examination or cannot meet an assignment deadline due to the observance of a religious holy day may take the examination on an alternate day, submit the assignment up to 24 hours late without penalty, or be excused from the examination or assignment, **ONLY** if proper notice of the planned absence has been given to the instructor at least fourteen days prior to the classes scheduled on dates the student will be absent. For religious holy days that fall within the first two weeks of the semester, notice should be given on the first day of the semester. A student who fails to complete missed work within the time allowed will be subject to the normal academic penalties.

CLASSROOM BEHAVIOR: You have the right to learn in every class you attend. But you also have the responsibility to help assure that every other student shares that right. Specifically:

1. Under normal circumstances, class will start on time and end on time.

2. Come to class on time. Do not leave early. These things are very disruptive. Recognize that the buses and the parking space situation are unpredictable elements and allow for that. If you must come late or leave early (for example because of a doctor's appointment), let the instructor know in advance.
3. Don't be disruptive during class. Do not chat with your neighbors or rustle the newspaper.
4. Don't allow your electronic devices to be disruptive. Turn off your cell phone, beeper, and watch alarm.
5. Don't leave your mess lying on the classroom floor when you leave—pick it up and throw it in a trashcan.

ONLINE PRIVACY: Web-based, password-protected class sites are associated with all academic courses taught at The University. Syllabi, handouts, assignments and other resources are types of information that may be available within these sites. Site activities could include exchanging e-mail, engaging in class discussions and chats, and exchanging files. In addition, electronic class rosters will be a component of the sites. Students who do not want their names included in these electronic class rosters must restrict their directory information in the Office of the Registrar, Main Building, Room 1. For information on restricting directory information see: http://www.utexas.edu/student/registrar/catalogs/gi06-07/app/appc09.html

COURSE POLICIES CAVEAT: As departmental, college and UT policies change, I reserve the right to alter the effected course policies stated herein during the course of the semester.

CLASSROOM EVACUATION FOR STUDENTS: All occupants of university buildings are required to evacuate a building when a fire alarm and/ or an official announcement is made indicating a potentially dangerous situation within the building. Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building. If you require assistance in evacuation, inform your instructor in writing during the first week of class. For evacuation in your classroom or building:
1. Follow the instructions of faculty and teaching staff.
2. Exit in an orderly fashion and assemble outside.
3. Do not re-enter a building unless given instructions by emergency personnel.

EMERGENCY COMMUNICATIONS: Emergencies may range from inclement weather, to building evacuations, to campus closures, and the university has a variety of tools to communicate with the public in the event of these and other possible emergencies. Depending on the type of emergency, communicate with faculty, staff and students:

Siren System

This system is tested around noon on the first Wednesday of every month, and delivers a siren warning and public address in the event of certain outdoor emergencies. Read more about the siren system.

Emergency Web Site
You may want to bookmark the emergency Web site because it is updated with information during actual emergencies or campus closures.

Local Press and Social Media
University Communications staff send emergency information to the press and update social media with public safety messages. Because of the transient nature of our population, the university depends a great deal on the press and social media to keep students, faculty, and staff informed during campus emergencies.

Pager System
Our campus first responders, resident advisors, and some building managers are part of the AWACS paging system. The pagers send text messages about emergencies on campus and alert city responders (APD, AFD, EMS, Office of Emergency Management, etc.) to campus crisis situations.

Fire Panel Systems
Residence halls are equipped with fire panel systems that have a public address capability. Resident advisors are trained to use these systems in emergencies in order to make announcements to the entire building regarding evacuation, shelter in place, etc.

Text Alerts
The university collects cell phone numbers from members of the campus community for emergency text messages. Sign up for campus text alerts online.

University Group E-mail
During emergencies, UT Safety Alert sends an "urgent" group email to every student, faculty and staff member. The email directs individuals to the emergency Web site for additional information and instruction.

Voicemail to Office Telephones
This tool leaves a voice message on every faculty and staff member's office phone on campus.

Cable TV
Residence halls and several of our public gathering places have cable televisions where emergency announcements get posted.

Public Safety Patrol Car Announcements

UTPD patrol cars are equipped with PA systems, which officers can use to provide instructions to pedestrians during emergencies.

University Emergency Information Line — 512-232-9999
Students, faculty, and staff can call this main number for information about campus closures.