EE382V - Advanced Programming Tools
COURSE SYLLABUS, FALL 2019
Unique Numbers: 16730, 16733, & 16734

PROFESSOR:
Christine Julien
Email: c.julien@utexas.edu (the best way to reach me; please put APT in the subject line).
Office hours: Monday 3-4:30pm or by appointment (Office EERC 7.806)

TEACHING ASSISTANTS:
There are three TAs total across the three course sections. Since the three sections are the same, any TA can answer questions for any section. We will use Piazza extensively in the course, and your questions on Piazza may garner responses from any member of the teaching staff (or your fellow classmates!). When contacting TAs by email, please include APT in the subject line. Also, please contact a TA for your designated section when inquiring about grading issues.

CLASS LECTURE SECTIONS: During lecture sessions the professor will be covering the essential course content material. You are expected to attend and participate. You are responsible for all material presented in class (including in-class exercises and announcements of assignment deadlines).

CLASS WEB PAGE: Course materials (e.g., the syllabus, lecture notes, tutorials, assignments, etc.) and grades will become available via postings on this course's UT Canvas web page as the semester progresses. These will be the main sources of current class information. Please check the page regularly. You are responsible for everything posted to Canvas.

COURSE OBJECTIVES: Programmers face multiple challenges on a regular basis and must be aware of the myriad tools available to help attack those challenges. These include tools for version control, programming (including languages!), prototyping, building, testing, etc. In this course, we will cover classes of tools (and specific instances of tools) common in today's programming world. The course is designed to first introduce a *problem* in order to motivate the need for a tool or tools to solve that problem. For each problem, we look at the types of tools available to solve the problem and you will get experience in using examples from each class of tool. In many cases, we will also discuss the technical underpinnings necessary to realize the tool. The class has a substantial design project that lasts the duration of the term; using the tools introduced in class will be a key component of the design project.

PREREQUISITES: Graduate standing or permission of the instructor. In addition, the course material assumes a reasonable comfort with the Java programming language and experience in developing applications of 100s of lines of code. The course also assumes familiarity with the Unix shell.

COURSE MATERIALS: The material for this course will be provided through the Canvas course pages, with resources for the content cited as used. There is no required textbook for the course.

GRADING POLICY: A substantial portion of the grade will be a semester-long project that delivers a novel application and leverages multiple tools introduced throughout the course. In addition, the courses is scaffolded around a series of tutorials, smaller assignments, and a mini-project that all prepare and support the final project. Students are expected to work in pairs (no more than two students!) to complete the final project. Other work should be done independently. The breakdown of course grades is as follows:
- Class participation (10%)
- Tutorials [completion grade] (15%)
- Group Project (75%) -- five, equally weighted phases; each student will receive an individual grade for the phase, computed as a weight on the group's grade for the phase

ATTENDANCE: Attendance is required, and it is part of your class participation grade. Religious holy days sometimes conflict with class and examination schedules. If you miss an examination, work assignment, or other project due to the observance of a religious holy day, you will be given an opportunity to complete the work within a reasonable time after the absence. It is the policy of The University of Texas at Austin that you must notify each of your instructors at least fourteen days prior to the classes scheduled on dates you will be absent to observe a religious holy day.

CANVAS: We will be using Canvas extensively for this course. Please let me know if you have concerns about access. You will be responsible for checking the course site regularly for class work and announcements. As with all computer systems, there are occasional down-times as well as unanticipated disruptions. Scheduled down-times are **not** an excuse for late work. However, if there is an unscheduled down-time for a significant period of time, I will make adjustments.

THE UT HONOR CODE: The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect towards peers and community.

Students in this course will be expected to adhere to the honor code. Any use of materials (e.g., code, library, etc.) must (1) adhere to whatever license agreement the material is released under and (2) must be clearly and properly documented. Any claim of ownership of others' materials (either explicit or implicit, i.e., due to a lack of proper documentation) is considered plagiarism and will be reported to the Office of the Dean of Students.

EMAIL NOTIFICATION POLICY: All students should become familiar with the University's official e-mail student notification policy. It is the student's responsibility to keep the University informed as to changes in his or her e-mail address. Students are expected to check email on a frequent and regular basis in order to stay current with University-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week. The complete text of this policy and instructions for updating your e-mail address are available at: http://www.utexas.edu/its/policies/emailnotify.html.In this course, e-mail will be used as a means of communication with students. You will be responsible for checking your email regularly for class work and announcements.

STUDENTS WITH DISABILITIES: Students who require special accommodations need to get a letter that documents the disability from the Division of Diversity and Community Engagement. This letter should be presented to the instructor in each course at the beginning of the semester, and accommodations needed should be discussed at that time. Five business days before an exam, the student should remind the instructor of any testing accommodations that will be needed. For more information, contact the Division of Diversity and Community Engagement, Services for Students with Disabilities, 512-471-6259, http://diversity.utexas.edu/disability/.

NOTIFICATIONS FROM THE OFFICE OF CAMPUS SAFETY AND SECURITY: Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- 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.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors.
- Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.

- Link to information regarding emergency evacuation routes and emergency procedures can be found at: utexas.edu/emergency.

CAMPUS CARRY: The carrying of a concealed weapon is not allowed in the instructor's office at any time.