CS 3398 - Section 001
Software Engineering
Fall 2021

Instructor:
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Office hours:
Face to face at Comal 210-A
Monday, Tuesday, Wednesday: 3:00 PM to 4:00 PM
Via Zoom at https://txstate.zoom.us/j/9674271605
Monday, Tuesday, Thursday, Friday: 11:00 AM to 11:30 AM
Other times (M-F only): By appointment, phone, email.

Course web site:
On Canvas: CS 3398.001 – SOFTWARE ENGINEERING

At https://canvas.txstate.edu/courses/1774298

Course delivery mode:

This is a face-to-face course, delivered via in-person lectures at the class scheduled times. Lectures will NOT be recorded. Class attendance is expected (and recorded on most days), but it does not contribute to the final grade. Major exams and pop quizzes will be given during class meetings. All course materials will be available on the Canvas site.

Class lecture times:

Monday and Wednesday, 5:00 PM to 6:20 PM in Derrick Hall # 240.

Textbook:
Ian Sommerville, *Software Engineering*, 10th Edition, ISBN-13: 978-0-13-394303-0, Digital-13: 978-0-13-394323-8, Pearson. (An e-book is available.)

Prerequisites:
C or higher in CS 2315 Computer Ethics (or EE 2400 Circuits I)

C or higher in CS 3354 Object-Oriented Design and Programming

C or higher in CS 3358 Data Structures and Algorithms

Course Description:

The study of software design, implementation, and validation techniques through team projects. Structured analysis, programming style, and project documentation are emphasized in large software projects.

Course Outline:

- Software Process Models
- Agile Software Development
- Requirements Engineering
- System Modeling
- Architectural Design
- Software Design and Implementation
- Software Testing
- Software Evolution
- Distributed Software Engineering
- Service-Oriented Software Engineering
- Project Management and Planning
- Software Quality Management
- Software Configuration Management

Course Objectives:

- To explain the details of several software development models.
- To apply engineering skills to software development which provides knowledge of how to produce higher quality, maintainable software.
- To learn how to manage and effectively participate in a software development group (project team) given the distributed and multicultural nature of today's teams.
- To practice project team participation in planning, decision making, and in meeting commitments and team schedules.
- To develop structured and thorough technical writing skills applied to software development documentation.

Grading Policy:

- Midterm Exam (25%)
- Final Exam (30%)
- Individual Assignments (20%)
- Team Assignments (25%)

Note: There will NOT be extra-credit work.
The letter grade guarantee for percentage of the total points attained is:

Grade	**Percentage**
A	90%-100%
B	80%-89%

C 70%-79%
D 60%-69%
F 59% or less

Exam dates:
Midterm Exam: Wed 10/13 (in class).
Final Exam: Mon 12/6 (5:00 PM - 7:30 PM), semi-comprehensive.
See https://www.registrar.txstate.edu/persistent-links/final-exam-schedule/final-exam-fall.html

Exam procedures:
Pop quizzes will be given using the Quizzes feature in Canvas, with a time limit. They will be open book, slides, and notes.
Exams will be given synchronously during our class meetings, with a time limit. They will be *closed* book, slides, and notes.

Individual Assignments:
There will be about 12 hand-written homework assignments and pop quizzes. Their main purpose is to help you understand and learn the material better as well as to prepare you for the major exams.

Team Assignments:
We will create project teams of 5 students. The main job of the team is to produce software artifacts that demonstrate fruitful teamwork, project tracking, and meeting commitments. The artifacts will be oriented towards software design, implementation, and testing.

This course seeks to encourage students to learn how to be part of an effective software engineering team, including how software engineering teams communicate. Texas State wants its engineers to be able to write as a basis for communicating and working well; therefore, **this is a writing intensive course**. The writings will take the form of software requirements, design, and test documents, as well as software project task descriptions & scheduling, and risk analysis & prioritization. You should expect to do a fair amount of reading as well!

Late Assignments:
Late assignments will not be accepted without prior arrangements. However, late assignments will incur a penalty of 20% per day, for up to 3 days, and then they will not be accepted at all.

If you cannot take a scheduled exam, due to a documented reason, inform me before the exam. Otherwise, there will be no makeup exams.

Attendance Policy:
While I record attendance randomly (for roster certification), I expect you to attend all class lectures. Some of the material for this course will be covered ONLY in the lectures. For this reason, class attendance is essential to success. If you have to miss class for any reason, you will still be responsible for material covered in your absence.

Students who must isolate or quarantine should report to Bobcat Trace and contact the instructor to make appropriate arrangements for completing assignments. Students can notify the instructor directly or utilize the absence notifications form.

Withdrawals / drops:
You must follow the withdrawal and drop policy set up by the University and the College of Science and Engineering. You are responsible for making sure that the drop process is complete. For more information, visit:

https://www.registrar.txstate.edu/resources/dropping-vs-withdrawing.html

https://www.cose.txstate.edu/advising/

Copyright:
Unless otherwise noted, the materials provided in conjunction with this course, including but not limited to the lecture notes, slides, handouts, homeworks, exams, and source code, are protected by copyright and for the exclusive use of the students enrolled in the course. Allowing others to access any of this material by posting it on public repositories such as git or submitting it to "note sharing sites" such as Chegg and CourseHero (which encourage you to break the law and post copyrighted content you do not own) is expressly forbidden. Note that you are not allowed to publicly post any of this material even if you made modifications. This copyright protection extends past the end of the semester.

Academic Integrity:
You are expected to adhere to the Texas State University Code of Student Conduct, The Honor Code, as well as the Texas State University Department of Computer Science Honor Code.

- Code of Student Conduct - http://www.dos.txstate.edu/handbook/rules/cosc.html
- The Honor Code - http://www.txstate.edu/honorcodecouncil/Academic-Integrity.html

Discussion of course material and assignments are encouraged between students. However, you must write-up your answers and solutions on your own. You must also write the names of other students with whom you collaborated on any assignment. Any attempts at obtaining homework, project, or exam solutions from "note sharing sites" such as Chegg and CourseHero, or from other sources, are considered cheating and carry the same penalty.

Classroom Behavior:

We must treat every individual with respect. We are diverse in many ways, and this diversity is fundamental to building and maintaining an equitable and inclusive campus community. Diversity can refer to multiple ways that we identify ourselves, including but not limited to race, color, national origin, language, sex, disability, age, sexual orientation, gender identity, religion, creed, belief, ancestry, veteran status, or genetic information. Each of these diverse identities, along with many others not mentioned here, shape the perspectives that students, faculty, and staff bring to our campus. Unfortunately, incidents of bias or discrimination do

occur, whether intentional or unintentional. They contribute to creating an unwelcoming environment for individuals and groups at the university. We must avoid them.
Therefore, civility in the classroom, being important for the educational process, is everyone's responsibility. If you have questions about appropriate behavior in a particular class, please address them with your instructor first. Disciplinary procedures may be implemented for refusing to follow an instructor's directive, refusing to leave the classroom if necessary, or refusing to implement health and safety measures as required by the university. Additionally, the instructor, in consultation with the department chair, may refer a student to the Dean of Students Office for further disciplinary review. Such reviews may result in consequences ranging from warnings to sanctions from the university.
For more information regarding conduct in the classroom, please review the following policies at https://policies.txstate.edu/division-policies/academic-affairs/02-03-02.html, section 03: Courteous and Civil Learning Environment, and https://studenthandbook.txstate.edu/rules-and-policies/code-of-student-conduct.html, number II, Responsibilities of Students, section 2.02: Conduct Prohibited.

Accommodations for students with disability:
Any student with special needs requiring special accommodations should inform the instructor during the first two weeks of classes. The student should also contact the Office of Disability Services at the LBJ Student Center or https://www.ods.txstate.edu/.
Student requests for modifications outside of the ODS process may be considered by the instructor, but there is no requirement to make modifications. Per the university's direction, all COVID-19-related academic (e.g., online or remote access to lectures, quizzes, and exams) and housing modifications expired at the end of Summer Session II. COVID-19-related academic modifications will not be provided during Fall 2021.

Emergency Management:
In the event of an emergency, students, faculty, and staff should monitor the Safety and Emergency Communications web page. This page will be updated with the latest information available to the university, in addition to providing links to information concerning safety resources and emergency procedures. Faculty, staff, and students are encouraged to sign up for the TXState Alert system.

Also, see https://www.txstate.edu/coronavirus. The Roadmap to Return can be found at https://www.txstate.edu/coronavirus/road-map.html. COVID-19 Testing, Reporting, and Response Steps are at https://www.txstate.edu/coronavirus/road-map/reporting-processes.html.

Bobcat Pledge:
Everyone in the Bobcat family must take extraordinary steps to slow the spread of COVID-19. We ask that all students, faculty and staff pledge to protect themselves, others, and our TXST community. Please see https://www.txstate.edu/coronavirus/road-map/bobcat-pledge.html.

Sexual Misconduct Reporting (SB 212):
Effective January 2, 2020, state law (SB 212) requires all university employees, acting in the course and scope of employment, who witness or receive information concerning an incident of sexual misconduct involving an enrolled student or employee to report all relevant

information known about the incident to the university's Title IX Coordinator or Deputy Title IX coordinator. According to SB 212, employees who knowingly fail to report or knowingly file a false report shall be terminated in accordance with university policy and The Texas State University System Rules and Regulations.

Our Mission:
Texas State University is a doctoral-granting, student-centered institution dedicated to excellence and innovation in teaching, research, including creative expression, and service. The university strives to create new knowledge, to embrace a diversity of people and ideas, to foster cultural and economic development, and to prepare its graduates to participate fully and freely as citizens of Texas, the nation, and the world.

Our Shared Values:
In pursuing our mission, we, the faculty, staff, and students of Texas State University, are guided by a shared collection of values:

Teaching and learning based on research, student involvement, and the free exchange of ideas in a supportive environment;

Research and creative activities that encompass the full range of academic disciplines—research with relevance, from the sciences to the arts, from the theoretical to the applied;

The cultivation of character, integrity, honesty, civility, compassion, fairness, respect, and ethical behavior in all members of our university community;

A diversity of people and ideas, a spirit of inclusiveness, a global perspective, and a sense of community as essential conditions for campus life*;*

A commitment to service and leadership for the public good;

Responsible stewardship of our resources and environment; and

Continued reflection and evaluation to ensure that our strengths as a community always benefit those we serve.