Course Syllabus

Course Information
CE/CS/SE 3354.002 Software Engineering
Fall 2020
Tuesday/Thursday 4:00-5:15

This class will be taught as a Remote class: synchronous online learning at the day and time of the class. The instructor delivers the instruction from home or the office. Students complete the course at a distance. Lectures will be recorded and available using Microsoft Teams. UTD has decided to move from Collaborate to Teams because of its support for closed captioning – each student can add captions to the (recorded) lectures.

Professor Contact Information
Dr. Mark C. Paulk
Office: ECSS 3.610 (not in office during pandemic)
Phone: (972) 883-4839 (not in office during pandemic)
E-mail: Mark.Paulk@utdallas.edu
Office hours: no face-to-face office hours – send questions via email, ask questions at the beginning of class, or schedule an appointment to talk online.

Course Pre-requisites, Co-requisites, and/or Other Restrictions
CE/CS/TE 2336 (Computer Science II) with a grade of C or better
or CS 3333(Data Structures)
CE/CS/TE 2305 (Discrete Mathematics for Computing I) with a grade of C or better
Pre- or co-requisite: ECS 3390 (Professional and Technical Communication)

Course Description
Introduction to software life cycle models.
Software requirements engineering, formal specification and validation.
Techniques for software design and testing.
Cost estimation models.
Issues in software quality assurance and software maintenance.

Student Learning Objectives/Outcomes
1) Ability to understand software lifecycle development models.
2) Ability to understand and apply software requirements engineering techniques.
3) Ability to understand and apply software design principles.
4) Ability to understand and apply software testing techniques.
5) Ability to understand the use of metrics in software engineering.
6) Ability to understand formal methods in software development.

7) Ability to establish and participate in an ethical software development team.
8) Ability to use software project management tools and techniques.
9) Ability to use CASE tools for software development.

Recommended Textbooks and Materials

- IEEE Software Engineering Body of Knowledge (SWEBOK v3), 2014 (available via eLearning References)

Suggested Course Materials

- D.C. Kung, Object-Oriented Software Engineering: An Agile Unified Methodology, 2014.
- C. Larman, Applying UML and Patterns, Third Edition, 2005.
- R.C. Martin, Agile Software Development: Principles, Patterns, and Practices, 2002; Clean Architecture, 2017; and Clean Code, 2008.
- S.R. Schach, Object-Oriented and Classical Software Engineering, Eighth Edition, 2011.
- M. Seidl, M. Scholz, C. Huemer, and G. Kappel, UML @ Classroom: An Introduction to Object-Oriented Modeling, 2015
- I. Sommerville, Software Engineering, Tenth Edition, 2016. Parts 1 and 4.

Assignments & Academic Calendar

Tue, Aug 18 Classes begin
- Modern software engineering
- Software requirements
- Software life cycles
- Software project management
- Peer reviews
- Requirements analysis
- Formal methods

Tue, Sept 29 Exam #1 (no class)
- Software design
- Measurement
- CASE tools
- Software testing
- People, teams, and ethics

Tue, Nov 24 Last day of class

Dec 2-8 Exam #2

Grading Policy

Quizzes	25%
Assignments	25%
Exam #1	25%
Exam #2	25%

Grading Curve

97-100	A+
93-97	A
90-93	A-
87-90	B+
83-87	B
80-83	B-
77-80	C+
73-77	C
70-73	C-
67-70	D+
63-67	D
60-63	D-
under 60	F

Quizzes

Quizzes will occur every Friday, covering the material discussed in the previous week. Exceptions will be announced via email.

Quizzes will consist of 5-15 questions: true/false, fill-in-the-blank, multiple choice, and/or problems.

Quizzes are open book and open notes. You may use a calculator.

Quizzes may be taken between 8:00am and 11:59pm of the day of the quiz. Quizzes not finished by 11:59pm will get a grade of 0.

Quizzes may be excused; quizzes cannot be made up; excused absences result in a null grade.

Quizzes will be administered online in the eLearning / Testing Folder.

Quizzes will last 10 minutes from the time started (and then will be automatically submitted).

Exams
There will be two exams.

If a student misses an exam for an approved reason (acceptable in the judgment of Dr. Paulk), a makeup exam will be scheduled.

Exams are open book and open notes. You may use a calculator.

Exams may be taken between 8:00am and 11:59pm of the day of the exam. Exams not finished by 11:59pm will get a grade of 0.

Exams will be administered online in the eLearning / Testing Folder.

Exams will last 90 minutes from the time started (and then will be automatically submitted).

Assignments
You will typically have a week to do a homework assignment.

Assignments will be typically be due at the scheduled beginning of class.

Assignments must be turned in on time – late assignments will receive a grade of 0 unless an excuse is accepted by the teacher.

Assignments may be deferred for an excused absence; students are still responsible for the material covered in class.

Assignments should include the class, the assignment, and your name at the beginning of the file.

File names of softcopy assignments should include the class, the assignment, and your name, e.g., se3354a01jdoe.pdf or se3354a01jdoe.jpg.

Assignments should be submitted through eLearning.

Course & Instructor Policies
1) There will be no extra credit work.
2) Assignments and quizzes will not be accepted late unless there are extenuating circumstances as accepted by the teacher.
3) Excused absences are provided for serious medical issues and school-sponsored events (e.g., professional conferences or athletic events for athletes) or at the discretion of Dr. Paulk.

4) Evidence, e.g., a doctor's excuse, for the reason for an excused absence should be emailed to Dr. Paulk.
5) Assignments may be deferred for an excused absence, but students are still responsible for the material covered in class.
6) If you send email to the teacher or the TA, include which class you are discussing in the email (including the section number). eLearning's "UTDallas email" can be used to send email to the teacher or TA and includes the class info.
7) The CS Dept attendance policy is suspended during the COVID-19 pandemic for this remote course.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.