Course Syllabus

Course Information
CE/CS/SE 3354.003 Software Engineering
Spring 2019
Monday/Wednesday 10:00-11:15
ECSS 2.311

Professor Contact Information
Dr. Mark C. Paulk
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Office hours: Monday/Thursday 2:30-3:30 or by appointment

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.
- 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

Mon, Jan 14 Classes begin

Mon, Jan 21 MLK Day

- Modern software engineering
- Software requirements analysis
- Use cases
- Software life cycles
- Agile methods
- Software design
- UML

Mon, Feb 25 Midterm Exam

March 18-22 Spring Break

- Peer reviews
- Coding
- Software testing
- Software project management
- People and teams
- Ethics
- Support processes and tools
- Measurement

Wed, May 1 Last day of class

May 6-11 Final Exams

Grading Policy

Assignments	20% (individual and project team)
Midterm exam	40%
Final exam	40%

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

Course & Instructor Policies

1) Make-up exams will be granted only for exceptional conditions, as approved by the instructor.
2) There will be no extra credit work.
3) Assignments will not be accepted late unless there are extenuating circumstances as accepted by the teacher.
4) Assignments should include the class, the assignment, and your name.
5) File names of softcopy assignments should include the class, the assignment, and your (team) name, e.g., se3354a01jdoe.doc or se3354t01team1.
6) If you send email to the teacher or the TA, include which class you are discussing in the email (including the section number).
7) 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. Assignments may be deferred for an excused absence; students are still responsible for the material covered in class.
8) Assignments should be submitted through eLearning, but may also be accepted as hardcopy hand-ins.
9) Cell phones shall not be used in the classroom during sessions. Place them on mute. If you receive a call, leave the room.
10) Exams are closed book; no laptops or mobile phones; a one-page (front and back) set of notes may be used.
11) You are expected to attend class.
12) By CS Dept policy, missing three (3) consecutive classes results in a letter grade drop and missing four (4) consecutive classes is an automatic failure for the class.

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.