# Course Syllabus

#### **Course Information**

CE/CS/SE 3354.5U1 Software Engineering Fall 2016 Tuesday/Thursday 4:00-5:15 ECSS 2.201

#### **Professor Contact Information**

Dr. Mark C. Paulk Office: ECSS 3.610 Phone: (972) 883-4839

e-mail: Mark.Paulk@utdallas.edu

Office hours: Tuesday/Thursday 2:45-3:45 or by appointment

#### Course Pre-requisites, Co-requisites, and/or Other Restrictions

CE/CS 2336 (Computer Science II)

CS 3333 (Data Structures)

CE/TE 3307 or CS 2305 (Discrete Mathematics for Computing I)

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.

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### **Required Textbooks and Materials**

• I. Sommerville, Software Engineering, Tenth Edition, 2016. Parts 1 and 4.

### **Suggested Course Materials**

- D.C. Kung, <u>Object-Oriented Software Engineering: An Agile Unified Methodology</u>, 2014.
- C. Larman, Applying UML and Patterns, Third Edition, 2005.
- R.C. Martin, Agile Software Development: Principles, Patterns, and Practices, 2002.
- S.R. Schach, <u>Object-Oriented and Classical Software Engineering</u>, <u>Eighth Edition</u>, 2011.

## Assignments & Academic Calendar

Mon, Aug 22 Classes begin

Mon, Sept 5 Labor Day (no classes)

Tue, Oct 11 Exam #1

Nov 21-25 Fall (Thanksgiving) Break (no classes)

Tue, Dec 6 Last day of class – Exam #2

Dec 9-15 Finals

## **Grading Policy**

Quizzes 10%

Assignments 30% (individual and project team)

Exam #1 30% Exam #2 30%

### **Grading Curve**

97-100	A+
93-97	A
90-93	A-
87-90	B+
83-87	В
80-83	В-
77-80	C+
73-77	C
70-73	C-
65-70	D-
under 65	F

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#### **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.
- 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 se3354p01team01.
- 6. If you send email to the teacher or the TA, include which class you are discussing in the email.
- 7. The lowest homework grade will be dropped.
- 8. The lowest quiz grade will be dropped.
- 9. Assignments should be submitted through eLearning, but will also be accepted as hardcopy hand-ins.
- 10. You are expected to attend class.
- 11. Cell phones shall not be used in the classroom during sessions. Place them on mute. If you receive a call, leave the room.
- 12. Exams are closed book; no laptops; a one-page (front and back) set of notes may be used.

### **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.

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