# Software Engineering Course Syllabus

## **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.

#### **Course Information**

| Course Title:  | Software Engineering                               |
|----------------|--|
| Course Number: | CS/SE/CE 3354, Section 501                         |
| Semester:      | Spring 2019  |
| Meeting At:    | 7:00 – 8:15 pm, Tuesday and Thursday in ECSN 2.120 |
| Credit Hours:  | 3  |

#### **Instructor's Contact Information**

| Name:           | Dr. Michael Christiansen   |
|-----------------|--|
| Office Phone:   | 972 883 6906 Note: email is only reliable method of leaving messages                                     |
| Email:          | michael.christiansen@utdallas.edu  |
| Office:         | ECSS 4.201   |
| Office Hours:   | Monday & Wednesday 1:00 - 2:00 and by appointment.   |
| eLearning Site: | Our eLearning site contains all announcements, slides, assignments, and other materials for this course. |

## **Teaching Assistant Contact Information**

| Name:          | TBD |
|----------------|-----|
| Office Hours:  | TBD |
| Office:        | TBD |
| Email Address: | TBD |

## **Academic Calendar and Events**

- Classes Start: 1/14
- Last Day of Class: 5/3
- Midterm Exam: 2/22 During Regular Class
- Final Exam: TBD
- Spring Break: 3/12-18

See the official UTD calendar for university holidays and closings here.

## **Course Prerequisites**

- 1. Computer Science II (CS/CE/TE 2336) with a grade of C or better, or CS 3333.
- 2. Discrete Mathematics for Computing (CS/CE/TE 2305) with a grade of C or better.
- 3. Professional and Technical Communication (ECS 3390).

## **Course Learning Objectives**

- 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 and modeling
- 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 understand software project management
- 9. Ability to understand CASE tools for software development

## **Required Textbook**

Object Oriented Software Engineering by Stephen R. Schach.



ISBN-13: 978-0073523330

## **Supplemental Textbook and Materials**



Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development, <u>Second or Third Edition</u> by Craig Larman.

Other materials as provided in the "Supplemental Materials" folder of the eLearning site.

# **Grading Policy**

The grade will be determined as follows:

• The final course grade will be calculated against the following factors:

| Projects             | 25 % |
|----------------------|------|
| Homework Assessments | 10 % |
| Class Attendance     | 5%   |
| Midterm Exam         | 25 % |
| Final Exam           | 35 % |

• No bonus work, make-up work, dropped scores, or other means of raising your grade will be provided.

#### **Classroom Policy**

Laptop and phone usage will not be allowed during class without written proof for medical reasons. However, phones can be used to take pictures.

Students that miss four consecutive classes will fail the course.

Students that miss three consecutive classes will have their final grade reduced by one letter grade for every infraction.

Attendance will be taken and verified for every class meeting. Cheating on attendance will be reported as academic dishonesty.

University policies can be found by visiting <u>http://go.utdallas.edu/syllabus-policies</u>. The materials in this syllabus are subject to change at the professor's discretion.