

## *Course Syllabus*

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### **Course Information**

CE/CS/SE 3354  
Software Engineering  
Summer 2025

### **Professor Contact Information**

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### **Course Description**

Introduction to software life cycle models  
Software requirements engineering, formal specification and validation  
Software architecture and design  
Advanced techniques for software testing  
Formal methods in software engineering

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### **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 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
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### **Required Textbooks and Materials**

NONE

### **Suggested Course Materials**

Ian Sommerville, "Software Engineering", 9th Edition, Addison-Wesley, 2011. (Or 8th Edition, Or 7th Edition)  
Pressman, "Software Engineering: A Practitioner's approach", 7th Edition, McGraw Hill, 2010. (Or 6th Edition, Or 8th Edition )  
Pfleeger and Atlee, "Software Engineering: Theory and Practice", 4th Edition, 2010, Prentice Hall, 2006.

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## Assignments & Academic Calendar

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### Grading Policy

Homework and projects: 5-7 weighted assignments

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### Course & Instructor Policies

1. Extra credit work will be available as informed by the instructor.
  2. All assignments are due by the beginning of class on the day due.
  3. Assignments will not be accepted late unless there are extraordinary circumstances.
  4. Assignments should include your (team) name, your utd id, and the title of the assignment. The assignments missing identity may not get credit.
  5. Assignments should be submitted through eLearning, but may also be accepted as hardcopy hand-ins.
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### 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.***