CS 6063 (16038) - Software Engineering I

(Version 2)
Fall 2018

Instructor's name & title
Professor Strauss, CCP
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NYU – Tandon School of Engineering

Office
2MT 10.048

Office hour (2MT 10.048)
Wednesday 11:00 – noon
(or by appointment)

Graduate Assistant/Grader
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Course Information

Course level credits
Graduate 3.0

Class times and location
Online (TBD)

Prerequisites
Graduate status
Objectives

To learn software-engineering techniques that can be applied to practical software projects.

a) Understanding of the full "software engineering" effort and alternative approaches
b) Technical emphasis on requirements, design, development, measurement, and modeling
c) Understanding management issues including software cost estimating and project management
d) Understanding process applicable to the software development/integration cycle and maintenance
e) Impact of technology changes on quality and development activities

Methods of Instruction

The primary method of instruction is lectures supplemented with related assignments, readings, and projects

Weekly Lecture Hours: 3 | Weekly Lab Hours: 0 | Weekly Recitation Hours: 0

General Content

The course emphasizes the full software-engineering approach with alternative approaches. Technical emphasis is on requirements, design, development and modeling. Management issues include software cost estimating and project management. Understanding the processes applicable to the software development/integration cycle and maintenance along with technology changes on quality and development activities is highlighted.

Project Presentation

Each project team is required to deliver a formal in class presentation describing the technical details and processes (covering the system life cycle from idea generation to requirements elicitation through design
presentation delivery, format, and content should be based on principle of a professional presentation. Presentation worksheets will be distributed faculty and peer evaluation. All team members are expected to participate in the presentation.

**Textbooks, Readings, materials**

**Textbook**


Pressman - URL - [http://www.mhhe.com/pressman](http://www.mhhe.com/pressman)

**Supplementary readings**


Cohn, Mike – *Succeeding with Agile*, Addison Wesley, New York, 2013


The instructor may distribute additional material.

**Course Policies**

*(Additional Policies posted at NYU Classes)*

**Attendance/Lateness**

Students are expected to attend lectures. Attendance is required. In case of absence, the student is responsible for the material covered during that lecture. Absence from exams will be accepted only if the student notified the instructor or Academic Affairs prior to the exam.
with an acceptable reason. A make-up exam will be given only for the exams not for quizzes.

**Class participation**
Class participation includes actively engaging in class dialog and discussions and formal oral presentations.

**Exams and Assessments**

**Examinations**
A midterm exam and final exam will be given as shown on the schedule. The midterm exam covers material from the beginning of the semester up to the exam. The final exam concentrates on material from the midterm to the end of the course. However, because the foundation for the material covered in the second half of the course is based on the previous material, the final exam should be viewed as being comprehensive with emphasis on material covered during the second half of the semester. Exam questions are based on material from the text, handouts and lectures.

**Systems Project**
An essential requirement of this course is the systems project. Virtually all analysis and design activities are carried out in project teams, or groups, in which communication and cooperation are vital to success. The group project is intended to give students experience in performing systems development activities as part of a team.

The TA/Grader and I will be available for consulting with groups at all stages of the project. **Do NOT fall behind!** The project will be divided into milestones. The milestones are in the course schedule.

**Academic dishonesty (Reference NYU and Poly Policies)**
Plagiarism, cheating, sharing of examination answers, submitting work done by others as your own, and all other forms of deception proscribed in University rules are forbidden. For the sake of your own dignity and self-esteem, it is better to get a low grade than to engage in dishonesty.

**See postings on NYU Classes**
Grading: Weights and Scales

Grades
Grades are based on two exams (midterm and final), class participation, and assignments. **All assignments must be turned in to receive a passing grade.** The weighing given to each of these factors is as follows:

- Midterm Examination 30%
- Final Examination 30%
- Project 30%
- Presentation 5%
- Research Papers/Homework 5%

**Homework** will be assigned and marked. Performance on the homework will be used to assess grades for students who are on the **boundary** of a grade. Homework will be discussed in class. Class participation is also considered as part of the grade.

Performance status
During the class lectures, the study material shown in the schedule will be discussed, including the questions at the end of assigned chapters. A portion of the grade will be based on answering these questions.

Withdrawal
You must formally withdraw from this course to avoid a failing grade. Failure to attend class or to submit work is not enough. Information about formal withdrawal is contained in the Schedule of Classes. After the last day to withdraw, requests that must be approved by the instructor. They will be approved upon presentation of convincing evidence that unforeseeable conditions beyond the students control prevent him or her from devoting sufficient time to meeting the requirements of the course.

Facilities and Resources
Computers availability & policies
All students are required to have a computer account. The Software Engineering laboratory is located RH 223
### Course Calendar and Schedule

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<th>Chapter</th>
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<td>Introduction</td>
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<td>4</td>
<td>Week 4</td>
<td>7, 8, 9, Appendix 1</td>
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<td>Week 6</td>
<td>UML</td>
<td>Implement with UML</td>
<td>Assignment #2</td>
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<td>Second Examination</td>
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*You should take the practice quizzes that cover each appropriate chapter (at the above URL)*

**Course Outcomes:**

1) Knowledge of different software development approaches.
2) Knowledge of modeling techniques
3) Knowledge of software development life cycle activities
4) Experience in sizing and costing software intensive systems
5) Major management strategies affecting development
6) Broad knowledge of analysis and design techniques
7) Importance of UML tools in modern systems

*Professional Ethics: Collaboration is not acceptable on individual assignments. As a minimum, a zero grade will be assigned to the effort.*

Software Engineering Laboratory is located on the second floor of Rogers Hall.