Department of Electrical and Computer Engineering
Gina Cody School of Engineering and Computer Science
Concordia University
COEN 6311 –Software Engineering (4 credits)
Winter - Course Outline

Professor: Yan Liu, Ph.D., Professional Engineer,
Office: EV 5.189
Office Hours: Monday 9:45am - 11:45am
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1. Syllabus

Software life cycle, software requirements and requirement documentation. Software design: top-down and bottom-up approaches; design validation and design reviews. Software implementation, choice of a programming language and portability. Testing, debugging and verification. Design of test cases. Software documentation and its maintenance. Documentation tools and documentation portability, user interface design. A project is required.

2. Schedule

This course consists of two lectures per a week, scheduled as follows:
LECTURES TuTh 11:45AM - 1:00PM H 420 SGW

3. Course Manuals

Textbook:
• Software Engineering (10th Edition) by Ian Sommerville
Publisher: Pearson; 10 edition (March 24 2015)
Language: English
ISBN-10: 0133943038
ISBN-13: 978-0133943030
Another good reference:

• Software Engineering: A Practitioner's Approach
by Roger S Pressman, Dr. Bruce R. Maxim
Publisher: McGraw-Hill Education; 8 Edition (Jan 23 2014)
ISBN-10: 9780078022128
ISBN-13: 978-0078022128

4. Course Evaluation:

The students will be evaluated according to the following marking scheme:
Project (4 deliverables): 35%
Midterm Exam: 25%
Final Exam: 40%
Total: 100%

4.1. Project:

The objective of the project is to put into practice the concepts seen in class. Students will be asked to from group. Throughout the semester, students need to produce design documents, submit periodic progress reports, and give oral presentations. More details will be posted later.

4.2. Midterm and Final Exams:
- The tentative midterm exam will take place on Tuesday Week 7 class hours.
- The date of the final exam will be announced by the university.

Students will be informed of the exact format of the exams prior to the exam dates.

4.3. Attendance

Lecture attendance is compulsory. Random quiz unmarked will be performed at the class time for attendance check. Special needs of permission of missing the lecture can be discussed with the lecturer. Final marks can deduced for missing the attendance.

5. Tentative Schedule
• Week 1 - Chapter 1: Introduction
• Week 2 - Chapter 2: Software processes
• Week 3 - Chapter 3: Agile software development
• Week 4 - Chapter 4: Requirements engineering
• Week 5 - Chapter 5: System modeling
• Week 6 - Chapter 5: System modeling (cont.)
• Week 7 - Midterm Exam / Chapter 5: System modeling (cont.)
• Week 8 – Spring Break
• Week 9 - Chapter 6: Architectural design
• Week 10 - Chapter 7: Design and Implementation
• Week 11 - Chapter 7: Design and Implementation (cont.)
• Week 12 - Chapter 8: Software Testing
• Week 13 - Chapter 9: Software Evolution

6. Academic Integrity
Violation of the Academic Code of Conduct in any form will be severely dealt with. This includes copying (even with modifications) of program segments. You must demonstrate independent thought through your submitted work. Please refer to the Academic Code of Conduct in the Concordia University Calendar
(http://www.concordia.ca/students/academic-integrity.html).