HELWAN University

Faculty of Computers and Information

Department of Computer Science
CS 251 (Software Engineering I)
Course Syllabus

Spring 2009

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Texts **Sommerville, I. (2007)**. Software engineering. Harlow, England ; New York, Addison-Wesley.
Webpage: http://www.cs.st-andrews.ac.uk/~ifs/
Stevens, P. and R. J. Pooley (2006). Using UML : software engineering with objects and components. Harlow, England, Addison-Wesley.
Webpage: http://homepages.inf.ed.ac.uk/perdita/Book/

Ref. **Pressman, R. S. (2009)**. Software engineering : a practitioner's approach. Dubuque, IA, McGraw-Hill.
Webpage: http://highered.mcgraw-hill.com/sites/0072853182/information_center_view0/

Prerequisite CS111 (it is very recommended that at least one programming course and a course in data structures are studied).

Objectives Three main objectives are in this course: First, to develop the maturity of the programmer to consider very important issues related to software than pure programming aspects. Second, to learn the UML as a design language. Third, to be very comfortable design using CASE tool, e.g., the open source StarUML. This course is the first part of a two-semester course; the second part is SWEII.

Syllabus The course covers the first half (16 chapters) of Sommerville in lecturers; almost at the rate of one chapter per lecture. The labs will cover the following:

- UML design from Stevens; almost the half of the book.
- Following up the project progression and assigning grades.
- Using the CASE tool, which will be StarUML: http://staruml.sourceforge.net/

Project

1- Groups should be formed in the first week.
2- Projects should be selected (from the offered list) or proposed by the end of second week.
3- Any fudging, copying, or any form of illegal reproduction results in getting a grade of -3 out of 30.

Grading Homeworks and Midterm: 10%, Project: 30%, and Final Exam: 60%.