

# CSC 331/631<sup>1</sup>

## Object-Oriented Software Engineering

### Spring 2009

12:00 – 1:15 TR  
244 Manchester Hall

**Instructor** : Dr. M.A. Francel  
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**Office Hours:** 1:00–3:00 WED, 10:00-11:30 THURS  
or by appointment; or by phone

**Course Description:** An introduction to current techniques used in medium and large-scale software development. Topics include requirements analysis; architectural, functional, object-oriented, and user interface design; verification and validation; process and configuration management; and professional ethics.

**Prerequisites:**

CSC-221 Data Structures and Algorithms  
CSC-231 Programming Languages

**Course Objectives:**

The objectives of the course are:

- to introduce the student to the terminology, methods, and artifacts used in the development of medium and large computer projects,
- to make students aware of the ethical and professional issues involved in building software,
- to practice and improve on group problem solving and communication skills.

## Course Outcomes:

By the end of the course the student should be able to:

- understand the significance of the various products produced during application design
- understand the various processes used to manage a software design project
- have some experience with the development of a software project
- be able to discuss the ethics of a variety of professional situations
- know how to read and report (oral and written) on technical material

**Text** : *Essentials of Software Engineering*

**Author** : Frank Tsui and Orlando Karam

**Reference** : *Software Engineering* (8<sup>th</sup> Edition)

**Author** : Ian Sommerville

## Class Attendance:

Class Attendance is expected because each class will include class discussion. However if for some reason you do miss class it is up to you to (1) get any assignments due that class period to me before class, (2) learn the material presented in class that day before the next class, and (3) prepare any assignments given that day in class for the due date.

## Class Discussion:

It is expected that everyone will take an active role in class. This means answering questions as well as taking part in class activities.

## Homework:

Homework will be assigned, collected, and graded. It is an important part of the course. You are expected to devote appropriate time outside of class to the completion of this work. Do not get any outside help on any graded work except from me. Homework will not be accepted late for any reason. If you are unable to come to class on the day a homework assignment is due, it is up to you to see that the homework is passed in before class begins.

## Quizzes:

Quizzes over the class readings and lectures will be given regularly. NO make-ups will be given. Over the term all types of test questions will be used including: essay, short answer, true/false, multiple choice, and matching.

## Technical Reports:

Software Engineering is a rapidly changing discipline. (Books, journals, conference proceedings, technical reports, published memos, trade magazines and the internet are constantly full of new information. While web content may be the easiest to change and update, it is also the least refereed by qualified individuals, making the information there potentially least reliable. Books are sources of good information, but quite often are “out of date” by the time they are published. Thus, journals, conferences, and trade magazines often contain the most reliable, current information in terms of on-going research.) Because of the constant changes in the discipline, it is necessary to regularly read the “trade journals.” To help you to develop this habit and to teach you how to read a technical article for its main ideas, the course includes technical reading/writing assignments. Over the term, you will be asked to make two types of technical reports.

Type 1: Here your assignment includes finding a journal article on some specific aspect of the general topic, reading the article, and writing a report on the article.

Type 2: Here your assignment is to give an overview of the current research in some specific aspect of a general topic. You will be expected to identify and report on at least six current articles that present results in the specific area you have identified within the general topic.

1 - Students registered for CSC 631 will be expected to do, besides the above mentioned work, an in-class presentation and tool demonstration.

## Exam Information and Dates:

All tests will be in-class, closed book exams<sup>2</sup>. Exams will cover all material since the last test.

Test 1	FEB 17
Test 2	MAR 19
Test 3	APR 21

Final Exam WED May 6 (2 pm)

2 – If you have a disability that may require an accommodation in this course, please contact the Learning Assistance Center at (758-5929) within the first two weeks of the semester.

**Assessment:**

20% projects  
15% technical reports  
25% tests  
15% homework + quizzes + group activities  
  
25% final exam

**Grading Scale:**

A	100-90%
B	89-80%
C	79-70%
D	69-60%
F	below 60%