

Course Code Course Title
COMP 3111H **Honors Software Engineering**

Course Description

General methodologies, techniques, and tools for planning, designing, implementing, validating, and maintaining large-scale software systems. Collaborative development environment, automatic static analysis, and testing techniques. Open source project development methodologies and techniques. Co-list with COMP 3111. Prerequisite(s): Grade A- or above in COMP 2012 / COMP 2012H. Exclusion(s): COMP 3111, ISOM 3210. Mode of Delivery: [BLD] Blended learning

List of Topics

- 1.Introduction
- 2.Modeling Software Systems using UML
- 3.Software Development
- 4.System Requirements Capture
- 5.Implementation
- 6.Testing
- 7.System Analysis and Design
- 8.Software Quality Assurance
- 9.Managing Software Development

Textbooks

Object-Oriented Software Engineering: Using UML, Patterns, and Java, 3/E, B. Bruegge and A.H. Dutoit, Prentice Hall, Inc., 2010.

Reference books

N/A

Grading Scheme

Pre-Lecture Quizzes	5%
In-class Practice Exercises Assignments	5%
Labs	10%
Quiz	20%
Project	20%
Final	40%
Total	100%

Course Intended Learning Outcomes

Ability to apply appropriate modeling techniques to design software for an application of medium complexity.

Ability to apply appropriate software engineering techniques to implement an application of medium complexity.

Ability to function effectively as a member of a software development team: organize, manage and participate in a small software development team and plan and schedule the activities involved in developing an application of medium complexity.

Assessment Rubrics