

CSCI-3130 --- Software Engineering Course Syllabus

Instructor Information

Instructor:	Dr. Kirstie Hawkey	Office:	225
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Class Meeting Time:	T/Th 4:05pm-5:25pm	Room No:	127
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Important Dates

- Final Withdrawal Date without academic penalty: May 31, 2011
- Final Withdrawal Date with academic penalty: June 29, 2011

Course Description

This class examines the process of software development, from initial planning through implementation and maintenance. A brief survey of available tools and techniques will be presented covering the topics of analysis, planning, estimating, project management, design, testing, and evaluation. Particular emphasis will be given to organizing and planning, team participation and management, top-down design and structure charts, system and information flow diagrams, walk-throughs and peer review, and testing and quality control

Midterm and Final Exam Requirements

- No midterm or final exam

Required Texts and Resources

There is no required text for the course. Copies of assigned readings will be provided if the text is not available on line. The course schedule and reading list can be found on the course webpage.

For those students who would like to have a text to refer to, the recommended text is:

- Software Engineering - Modern Approaches, Braude and Bernstein, ISBN 978-0-471-69208-9

For those planning a programming career, two books that are highly recommended are:

- Design Patterns - Erich Gamma, Richard Helm, Ralph Johnson, John Vlissides. Addison-Wesley Professional Computing Series. ISBN 0-201-63361-2
- Refactoring - Improving the design of existing code. Martin Fowler. Addison-Wesley. ISBN 0-201-48567-2.

Course announcements will be posted to the course mail list, which comprises the instructor's and students' CS email accounts. It is the student's responsibility to check their CS e-mail account on a regular basis. If you do not know how to access your CS e-mail account please contact the CS help desk or read the following FAQ located at:

http://www.ug.cs.dal.ca/student-services/faq/technical_services/e-mail/email.php

Prerequisites

CSCI-2110.03, CSCI 2132.03, or INFX 3600.03 or permission of instructor

Evaluation Criteria & Schedule of Deliverables

Item	Description	Due	Grades
MS1	Group website	May 12	2%
MS2	Project charter	May 19	3%
MS3	SRS & Project plan	May 26	10%
Individual Document reviews	SRS Review	June 2	10%
MS4	Design Documents	June 9	10%
Individual Document reviews	Design Review	June 16	10%
MS5	Change request management	June 30	5%
MS6	Software test plan	July 7	10%
Project presentation	Description & demo of project	July 26	10%
Final project documents (modified to address feedback/current reality)	Project Charter SRS & Project plan System Design and detailed design documents Test Plan Test Reports User Manual Deployment Guide Weekly project reports Minutes of project meetings	July 28	20%
Individual Assignment	Post-mortem report/peer assessment	July 28	10%
		Total	30% Individual, 70% Group work

Note: Weighting of group marks to team members may vary. Anything less than an equal distribution will only occur if there is documentation (e.g, weekly project reports, and project deliverable documentation) in addition to peer assessments that reveal inequities in effort and commitment.

Late Policy and Submission requirements

- Late assignments or project submissions will not be accepted.
- All materials must be submitted both in paper and electronic form.

Tentative List of Topics

- Overview
 - Project charter
 - Software lifecycle
 - Software documentation
 - Project documentation
- Practical software development processes
 - Daily builds
 - Configuration management
 - Estimation
 - Risk management
 - Change request management
- Formal software requirements specification
- Project planning
- Principles of software design
 - Data flow models
 - State models
 - UML
- Software architecture
- Software testing
 - Unit tests
 - UI monkey
 - System tests
- Software Engineering methodologies
 - Waterfall
 - Prototyping
 - Spiral
 - RAD
 - Scrum
 - Team software process
 - Extreme programming
 - Agile

Academic Integrity¹

At Dalhousie University, we respect the values of academic integrity: honesty, trust, fairness, responsibility and respect. As a student, adherence to the values of academic integrity and related policies is a requirement of being part of the academic community at Dalhousie University.

What does academic integrity mean?

Academic integrity means being honest in the fulfillment of your academic responsibilities thus establishing mutual trust. Fairness is essential to the interactions of the academic community and is achieved through respect for the opinions and ideas of others. "Violations of intellectual honesty are offensive to the entire academic community, not just to the individual faculty member and students in whose class an offence occurs." (see Intellectual Honesty section of University Calendar)

How can you achieve academic integrity?

- Make sure you understand Dalhousie's policies on academic integrity.
- Give appropriate credit to the sources used in your assignment such as written or oral work, computer codes/programs, artistic or architectural works, scientific projects, performances, web page designs, graphical representations, diagrams, videos, and images.
- Use RefWorks to keep track of your research and edit and format bibliographies in the citation style required by the instructor <http://www.library.dal.ca/How/RefWorks>
- Do not download the work of another from the Internet and submit it as your own.
- Do not submit work that has been completed through collaboration or previously submitted for another assignment without permission from your instructor.
- Do not write an examination or test for someone else.
- Do not falsify data or lab results.

These examples should be considered only as a guide and not an exhaustive list.

What will happen if an allegation of an academic offence is made against you?

1. I am required to report a suspected offence. The full process is outlined in the Discipline flow chart, which can be found at:

¹ Based on the sample statement provided at <http://academicintegrity.dal.ca>.

2. <http://academicintegrity.dal.ca/Files/AcademicDisciplineProcess.pdf> and includes the following:
3. Each Faculty has an Academic Integrity Officer (AIO) who receives allegations from instructors.
4. The AIO decides whether to proceed with the allegation and you will be notified of the process.
5. If the case proceeds, you will receive an INC (incomplete) grade until the matter is resolved.
6. If you are found guilty of an academic offence, a penalty will be assigned ranging from a warning to a suspension or expulsion from the University and can include a notation on your transcript, failure of the assignment or failure of the course. All penalties are academic in nature.

Where can you turn for help?

- If you are ever unsure about ANYTHING, contact myself.
- The Academic Integrity website <http://academicintegrity.dal.ca> has links to policies, definitions, online tutorials, tips on citing and paraphrasing.
- The Writing Center provides assistance with proofreading, writing styles, citations.
- Dalhousie Libraries have workshops, tutorials, citation guides, Assignment Calculator, RefWorks, etc.
- The Dalhousie Student Advocacy Service assists students with academic appeals and student discipline procedures.
- The Senate Office provides links to a list of Academic Integrity Officers, discipline flow chart, and Senate Discipline Committee.