

# CS410 Course Syllabus

September 8, 2009

Advanced Software Engineering  
Term 1 2009-2010

## 1 Course Description

This course focuses on two areas important to the construction of large, multi-module, multiversion software systems: software architectural design, and verification and validation techniques. We will cover both state-of-the-practice and state-of-the-art techniques.

## Vital Information

Instructor	Dr. Emerson Murphy-Hill
TAs	KK Lo and James Lo
Course email	cs410@ugrad.cs.ubc.ca
Instructor-private email	cs410-in@ugrad.cs.ubc.ca
Office Hours	Please check the course web page for current office hours.
Web page	<a href="http://www.ugrad.cs.ubc.ca/~cs410/">http://www.ugrad.cs.ubc.ca/~cs410/</a>
Forum	<a href="http://vista.ubc.ca">http://vista.ubc.ca</a>
Prerequisites	CPSC 310. CPSC 319 is recommended.
Required Readings	Handouts and online information will be provided.

Lectures	MWF from 2:00 to 2:50 pm in DMP 301
Labs	There are no scheduled labs or tutorial sessions.
Grading	Your grade will be based on a mid-term, a final, and various project deliverables.
TAs	Each TA will also have office hours each week. The schedule will be available on the course web page.

## 2 Course Structure

### 2.1 Lectures

I will present much (but not all) of the lecture material through slides. When possible, the slides will be available on the web the morning of the lecture. You are expected to attend lectures and to take notes. Do not rely solely on the material on the web to prepare for exams. The more you participate, the more fun we will have, and the more you will learn! Don't be shy!

### 2.2 Assignments and Readings

I will assign readings or other assignments before or after lectures. Completing these assignments is critical to reinforce the material you will learn during lectures. I will attempt to make these assignments short and easy; in exchange, I expect you to make an effort to complete them on time. I will occasionally require you to turn in proof-of-work for these assignments to assure that you have made this effort.

### 2.3 Project

This course will involve a project in which you will work as a member of a four-person team of your own choosing. The project's technology and your software's purpose is of your choosing as well. The project is intended to provide you with practical experience with some of the architectural aspects of the course and to provide an experience with the full software life-cycle. Because your project is open-ended, the TAs and I will *not* be able to provide technical help. Instead, we will help you learn strategies and resources for you to help yourself. I expect you to apply the knowledge of software process and software tools you gained

through CPSC 310 (and CPSC 319) in your project. I will require two artifacts from the process you apply to be handed in (other than for review purposes): the final code and a written project overview. I will use the requirements as a guide for evaluating your final project demo. Other documents or demonstrations may be required throughout the term to assure that you are making progress with your project.

The project will be graded on:

- A design review session in which you will describe the design of your application, describe the status of the development of the application, and your plan for completing development.
- A final demo session in which you will demonstrate that your application meets your previously stated requirements, describe the implemented architecture of your application, describe the development plan you used, and critique your project.
- A group-written project overview at the end of the project. The review session will consist of a 20-30 minute meeting of all of the group members, the instructor, and the TA assigned to your project. The group will have an assigned amount of time in which to present requested material; the instructor and TA will then have the remainder of the time to ask questions to each member of the group. Any member of the team who misses a review session for other than an emergency will receive a grade of zero for that portion of their project grade. Your project grade will also be dependent on the teamwork within your project group. Each member of the team is required to fill in a team assessment form at the end of the term. Contact the instructor if a medical or family reason prevents you or a member of your team from attending a scheduled review session.

## 2.4 Grading

You will be graded as follows:

Project	30%
Midterm	30%
Final	30%
Assignments and Readings	10%

## 3 Where to Get Course Information

### 3.1 Course Material

Course material will be available on the Web. To access the information, go to <http://www.ugrad.cs.ubc.ca/~cs410>

### 3.2 Forum and E-mail

You are expected to read the forum (see above). In it, you will find information about lectures, the project, and other information that I did not mention in class. Outside of the classroom and office hours, the forum will be the primary place that you can ask questions. The TAs and I will read the forum daily and you can expect prompt replies. Questions and concerns about general course issues, project teams, etc. can also be sent to [cs410@ugrad.cs.ubc.ca](mailto:cs410@ugrad.cs.ubc.ca). The TAs will read mail on this account daily. Personal questions (ones that you don't want anyone else to see) may be sent to the instructor via e-mail at [cs410-in@ugrad.cs.ubc.ca](mailto:cs410-in@ugrad.cs.ubc.ca).

## 4 Expectations

The TAs and I will be working hard to make sure that you learn about software engineering in a fun and as-realistic-as-possible environment. In addition, you must take responsibility for your own learning. To accomplish this, in addition to the already stated expectations, I expect that you:

1. Abide by the academic honesty guidelines of the University (<http://www.science.ubc.ca/students/new/conduct>).
2. Will attend all classes. You will be examined on all of the course material, including that covered in lecture, readings, assignments, and activities.
3. Participate in the class and the project.

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