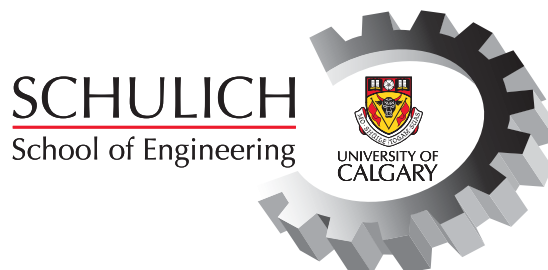


January 2008



COURSE NAME / NUMBER

<i>SENG 401</i>

TITLE OF COURSE	HOURS	SESSION	YEAR
<i>Analysis and Design of Large Scale Software II</i>	<i>H(3-2)</i>	<i>Winter</i>	<i>2008</i>

COURSE OUTLINE

(Revision 1.00)

1. DESCRIPTION

Calendar description:

Software architectures and design for non-functional software properties. Introduction to program comprehension skills including analysis of existing architectures.

Corequisites/Prerequisites:

Prerequisites: Software Engineering 301. Corequisites: Computer Science 457.

Note:

Credit for both Software Engineering 401 and Software Engineering 443 will not be allowed.

2. OBJECTIVES

After completing this course the student will:

- Have a working knowledge of software architecture
- Be aware of framework models
- Be aware of software reuse methods and techniques
- Be aware of software product-line architectures
- Be aware of architecture evaluation methods

3. LECTURES/LABS/TUTORIALS

L/B/T	SESSION	DAYS OF THE WEEK	START TIME	DURATION/ MINUTES	LOCATION
<i>LEC01</i>	<i>Winter</i>	<i>MWF</i>	<i>13:00</i>	<i>50</i>	<i>ICT116</i>
<i>LAB01</i>	<i>Winter</i>	<i>MW</i>	<i>16:00</i>	<i>50</i>	<i>ICT116</i>

4. COURSE INSTRUCTORS

LECTURERS:

SECTION	NAME	TELEPHONE	OFFICE	EMAIL
<i>LEC01</i>	<i>Dr. B.H. Far</i>	<i>210-5411</i>	<i>ICT 543</i>	<i>far@ucalgary.ca</i>

LABORATORY INSTRUCTORS:

SECTION	NAME	TELEPHONE	OFFICE	EMAIL
<i>LAB01</i>	<i>Hamdy Ibrahim (Teaching Assistant)</i>	<i>210-5439</i>	<i>ICT532</i>	<i>hibrahi@ucalgary.ca</i>

5. EXAMINATIONS

There will be a midterm and a final examination. All examinations will be closed book and closed notes. The midterm examination will be scheduled at a time near the end of February or beginning of March. The exact time and location will be announced in class and on the course's WWW page well in advance. The students' understanding of the subject will be evaluated by one or two quizzes randomly scheduled throughout the course. The final examination will be scheduled by the Registrar's Office at a time in the two-week period following the end of classes in April.

6. Use of CALCULATORS in Examinations

Scientific (with logarithm and exponentials calculations capability) calculators without text display features and without communication features (e.g., cell phones) may be used during examinations and quizzes.

7. FINAL GRADE DETERMINATION

The final grade in SENG 401 will be based on the following components:

Quizzes and/or student presentations	10	%
Laboratory Reports & Projects	30	%
Midterm Examination	20	%
Final Examination	40	%
TOTAL	100	%

It is necessary to earn a passing grade of at least 50% on the final exam in order to pass the course as a whole. It is necessary to submit all the lab reports and projects to pass the course.

8. PRINCIPLES OF CONDUCT

The University of Calgary Calendar includes a statement on the Principles of Conduct expected of all members of the University community (including students, faculty, administrators, any category of staff, practicum supervisors and volunteers) whether on or off the University's property. This statement applies in all situations where the Members of the University Community are acting in their University capacities. All Members of the University Community have a responsibility to familiarize themselves with this statement which is available at:

http://www.ucalgary.ca/pubs/calendar/2007/how/How_KB.htm

9. ACADEMIC MISCONDUCT/PLAGIARISM

The University of Calgary Calendar defines plagiarism as:

“submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not.”

Plagiarism is academic misconduct. Please read the section in the University Calendar on Plagiarism/Cheating/Other Academic Misconduct which is available at:

http://www.ucalgary.ca/pubs/calendar/2007/how/How_LB.htm

10. TEXTBOOK

The course handouts are the major source of information. All the handouts and other materials are downloadable from the course WWW page. The following textbook is required for SENG 401.

<i>Applied Software Architecture</i>
2000
<i>C. Hofmeister, R. Nord, D. Soni</i>
<i>Addison Wesley, ISBN 0-201-32571-3</i>

The following textbook is recommended as a reading supplement.

<i>Software Paradigms</i>
2005
<i>Stephen H. Kaisler</i>
<i>John Wiley & Sons, ISBN 0-471-48347-8</i>

11. ACADEMIC ACCOMMODATION POLICY

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

12. ENGINEERING FOIP POLICY

**SCHULICH SCHOOL OF ENGINEERING - UNIVERSITY OF CALGARY
POLICY FOR IMPLEMENTATION OF FOIP REQUIREMENTS
Protection of Student Examinations and Course Work Under the
Freedom of Information and Protection of Privacy Act of the Province of Alberta**

The Schulich School of Engineering policy is intended to ensure that examinations and term-work of students in engineering courses are protected with respect to privacy. The philosophy behind the policy is that marked student examinations and term-work (hereafter called "student's work") should be available only to the student and to staff in the Schulich School of Engineering who have a need to see the material. This includes academic staff, graduate assistants and support staff.

Please read the Schulich School of Engineering FOIP Policy:

<http://www.ucalgary.ca/eng/courses/Engg/FOIPPOLICY.html>

13. ADDITIONAL COURSE INFORMATION SECTION

This course will cover the scope of software paradigms with particular emphasis on software architecture. The students will learn through a combination of lectures, project work, exercises, and seminar presentations.

During the course the students are grouped into teams. Each team is asked to design a moderately realistic software project using architecture concepts. The laboratories reports

(design documents) of various phases of the assigned project should be handed in for check and marking. The reports are reviewed and a group discussion will be held in the tutorial periods. Unlike many undergraduate courses, and similar to what is actually performed in industrial practice, the laboratories hours are for (1) delivering a short introduction of the segment by the TAs; (2) group discussion and presentation by the students; and (3) review of the projects by the TAs and students.

The SENG 401 course home page contains links to up-to-date course information, problem assignments, announcements, as well as laboratory and examination scheduling. The SENG 401 course home page is available through the B.H. Far's home page at the URL:

<http://www.enel.ucalgary.ca/People/Far/Lectures/SENG401>

Watch the SENG401 course homepage regularly for updates, if any, to this document.