SE 2AA4 Winter 2007

00 Preliminaries

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McMaster University

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Instructor

- Dr. William M. Farmer
- Office: ITB 163
- Extension: 27039
- E-mail: wmfarmer@mcmaster.ca
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- Office hours: TR 16:30–17:30

Teaching Assistants

- Graduate teaching assistants:

  Sui Huang (huangs3@mcmaster.ca)
  Clare So (socm@mcmaster.ca)

- Undergraduate teaching assistant:
  - Jeffrey Heifetz (heifetj@mcmaster.ca)
- Teaching assistants will:
  - Give tutorials
  - Provide programming assistance
  - Mark software design exercises
  - Answer questions concerning the course material

Mission

The mission of this course is to introduce students to the profession of software engineering and the software development process. Students will study the basic principles of software design, focusing on software modularization and software units that are small, sequential, and terminating. They will learn how to use precise specifications to design, implement, and verify software units in the programming languages C and Java. Later courses will teach how to write specifications and design large software systems that may be concurrent and nonterminating.

Mechanics

- Lectures: MWR 17:30–18:20 in TSH B105
- Tutorials: W 8:30–9:20, F 10:30–11:20 in TSH 118
- Course web site:

  `http://www.cas.mcmaster.ca/~wmfarmer/SE-2AA4-07/`

- Textbook: C. Ghezzi, M. Jazayeri, and D. Mandrioli, Fundamentals of Software Engineering, Second Edition, Prentice Hall, 2002. ISBN: 0133056996
- The class will pick a class representative who will serve as a liaison between the students and the instructor

Work Plan

- Lectures given by the instructor
- Tutorials usually given by the teaching assistants
- 11 weekly quizzes given during each Friday tutorial
- 5 software design exercises done outside of class
- Midterm test during class time on Monday, March 5
- 3-hour final exam on the date scheduled by the University
- Each student is required to keep a log book

Academic Dishonesty

- Academic dishonesty consists of misrepresentation by deception or by other fraudulent means
- Includes:
  - Plagiarism
  - Copying
  - Improper collaboration
- Academic dishonesty can result in serious consequences
- Your work must be your own. Plagiarism and copying will not be tolerated!
- Students may be asked to defend their written work orally

Other Policy Statements (1)

1. Significant study and reading outside of class is required.
2. Students are required to attend the lectures and tutorials. Attendance will be recorded, and absences will be excused only in highly exceptional cases.
3. The student is expected to ask questions during class.
4. You may want to discuss the exercises with your fellow students. If you do that, you must record a summary of your discussions in your log book including a list of all those with whom you had discussions and a description of what information you received. It is part of your professional responsibility to give credit to all who have contributed to your work.
5. A student may use his or her texts and notes during the midterm test and final exam but not during the weekly quizzes.

Other Policy Statements (2)

6. Exercise reports may not be submitted late and the midterm test may not be taken later without prior approval from the instructor.
7. The instructor reserves the right to require a deferred final exam to be oral.
8. Calculators and electronic devices are not permitted during the weekly quizzes, midterm test, and final exam.
9. The Faculty of Engineering is concerned with ensuring an environment that is free of all adverse discrimination. If there is a problem, that cannot be resolved by discussion among the persons concerned, individuals are reminded that they should contact their Department Chair and the Human Rights and Equity Services (HRES) office as soon as possible.
10. Suggestions on how to improve the course and the instructor's teaching methods are always welcomed.

Grading

Weekly quizzes (11)	20%
Software design exercises (5)	20%
Midterm test	20%
Final exam	40%
Total	**100%**

Notes:

1. A student's final score will be reduced by one half point for each missed lecture and tutorial (there is no penalty for the first six absences).
2. The instructor reserves the right to adjust the marks for an exercise, midterm test, or final exam by increasing or decreasing every score by a fixed number of points.

Syllabus

00 Preliminaries

01 Software Engineering as an Engineering Discipline [chapter 1]

02 Software Qualities [chapter 2]

03 Software Engineering Principles [chapter 3]

04 Software Design [chapter 4]

05 Modularization [chapter 4]

06 Specification [chapter 5]

07 Verification [chapter 6]

08 The Software Development Process [chapter 7]