COMP2111 Course Information for Session 1 2014

(The present document ($Revision: 1.2 $) is available online at
http://www.cse.unsw.edu.au/~cs2111/14s1/admin/intro.html).

Assumed Knowledge

set theory, propositional logic, first-order logic (all from from MATH1081); general mathematical concepts from MATH1131/1141; programming concepts from COMP1917 & COMP1927; requirements concepts from SENG1031. COMP2111 is a co-requisite for SENG2011 and a prerequisite for SENG2021.

Update Policy

This course introduction should be relatively stable at the beginning of session. Any updates after the initial publication will be discussed in class and announced under the header **Fresh stuff** in the menu on the left hand side of the COMP2111 web site.

Course Aims

The first basic aim is to develop an understanding of *requirements analysis*, that is, to understand how to progress from an informal (written or spoken) requirements document to a clear understanding of what the requirements entail, and from there to a *design* or *formal specification*. In particular, this course teaches how rigorous modelling can be used to develop designs that reflect the requirements.

The second basic aim is to learn how to systematically derive implementations from formal specifications using simple mathematics. This can be done with pencil and paper or with tool support. The latter will be demonstrated occasionally in class. The skills acquired feed directly into the SE workshops SENG2011 and SENG2021.

The third basic aim is to develop an understanding of the rules for deriving implementations from specifications. Why do they work? What do we have to prove and how? This is crucial for later industrial software engineering practice.

Course Objectives

After successfully completing this course, you will have increased your understanding of fundamental SE concepts including: *specification, implementation, abstraction, and refinement*.

Graduate Attributes

are important because the disciplinary knowledge that students develop at university is not adequate in itself as the basis for their future lives. Instead, graduates need qualities and skills that equip them for lifelong learning. These include critical thinking and problem-solving skills, communication skills, information literacy skills, and group work skills. says a UNSW policy.

- **Critical thinking and problem-solving skills** will be fostered by tutorial exercises and assigments.
- **Communication skills**, both oral and written, are sharpened by writing and presenting mathematical thought in tutorials and by writing mathematical text for assignments.
- **Group work skills** are developed while solving problems with peers even if this is more so the domain of the companion course SENG2011.

Course Evaluation and Development

I take student feedback seriously. I run my own more detailed online course surveys to find out what works and what doesn't. Fill ratios of these surveys are much higher because students can score a bonus mark for filling in. The feedback is more detailed because the questions are talored toward the course. That student feedback for the previous session is available.

There were some serious issues in COMP2111 13s1. Given the massive changes in the SE workshops (year 1 2013 and year 2 2014), it would be a mistake to train one particular formal method and one particular tool supporting that method in COMP2111. In contrast to previous years, there is no use made of any of that in the workshops. To remain relevant to SENG2011, the focus of COMP2111 is shifted away from tool training to understanding the concepts implemented by such tools.

Teaching "Strategy" and "Rationale"

Learning in this course happens in lectures (where the white-board is used more than slides), tutorials (where the exploration of questions is guided by the tutor), and assignments (where concepts are reinforced and translated into problem-solving and coding practice).

Keeping Informed and Staying in Touch

Course Web Site

Important notices related to this course will be displayed on the *course home page*, which is located at http://www.cse.unsw.edu.au/~cs2111/. It is your responsibility to check this page regularly.

Email

Only in rare cases urgent information may also be sent to your CSE email account.

Only requests of a confidential nature should be sent to the course account, cs2111. Anything else should go onto the message board described next. If in doubt, send email and be prepared to receive the one-line answer: *"This can be asked on the board."* Emails from non-UNSW accounts are ignored.

Message Board

A message board has been set up for this subject. All but the truly confidential questions should be posted there.

RSS Feed

Notifications about anything deemed noteworthy and related to this subject are maintained as an RSS feed. The newest items of that feed are also displayed first on the subject website.

Staff

Name	Role
Kai Engelhardt	lecturer-in-charge
Amos Robinson	tutor

Consultations

If you need the services of a consultant, make an appointment via email and come to Kai's office (217c in K17) at the agreed time. Ring using the phone next to the glass door (x54497).

Text Book

There is no single required textbook for this course. Relevant material will be made available during the session as needed.

Assessment Summary

The final mark is determined as the sum of the marks for the assessable components and bonus marks of the course, *capped by 45 if the exam mark is less than 25*:

Assessable Components

- 5% tutorial participation mark
- 15% assignment 1: due at the end of week 5
- 15% assignment 2: due at the end of week 8
- 15% assignment 3: due at the end of week 11
- 50% exam: a final exam (2 hours) worth up to 50 marks
- 1 bonus mark for filling in an online course survey at the end of the session.

Disclaimer

(Plagiarism, special considerations, supplementary exams)

Recall that you are bound by the Yellow Form. Particularly relevant are the sections on *Special Consideration — Illness & Misadventure* and the *CSE Supplementary Assessment Policy*.

CSE uses its addendum to the UNSW plagiarism policy.
