COMP2111 Course Information for Session 1 2013

(The present document ($Revision: 1.1 $) is available online at
http://www.cse.unsw.edu.au/~cs2111/13s1/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 in week one 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 and extensively practiced using Rodin, an Eclipse-based IDE for Event-B. This feeds 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 SE practice, especially if that happens not to involve Rodin/Event-B.

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 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 tend to be much higher and feedback more detailed because students can score a bonus mark for filling in. Student feedback from previous sessions is not yet available for this course because this is the first time I teach it.

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
Christopher Manouvrier	tutor
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). Ring using the phone next to the glass door (x54497).

Text Book

There is no single required textbook for this course. Event-B and, to a lesser extent Rodin, are the subject of Ken Robinson's draft book.

Additional references will be provided throughout 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

- 2% assignment 0: due at the end of week 2
- 14% assignment 1: due at the end of week 5
- 14% assignment 2: due at the end of week 8
- 20% 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.
