Department of Computer Science, Australian National University
COMP1100 — Introduction to Programming and Algorithms
Semester 1, 2009

General Course Information

Course Outline

COMP1100 *Introduction to Programming and Algorithms* is the first in a sequence of two courses, the second being either COMP1110 *Introduction to Software Systems,* or COMP1510 *Introduction to Software Engineering,* or COMP2120 *Computing for Engineering Simulation*. COMP1100 is designed to lead into these second courses.

This course provides an introduction to the basic principles of programming. It provides a foundation for further studies in computer science, information systems and software engineering. In combination with COMP2120, it provides a basic knowledge of programming and software construction for future practising engineers. The course syllabus is built around the basic concepts of programming, especially data structures, control structures, abstraction and modularisation. There is an emphasis on data-directed program design.

The course has a strong practical emphasis and students will be expected to spend considerable effort on designing, developing and testing numerous small programs.

Lecturer

The principal lecturer for the course is Dr. Clem Baker-Finch. His office is CSIT N317 and his phone number is x54625. See the course web pages for consultation hours.

The principal tutor for the course is Ben Lippmeier. His office is CSIT N312 and his phone number is x58171. See the course web pages for consultation hours.

Organisation

COMP1100 Introduction to Programming and Algorithms is a 6 unit course offered in first semester. There will be at least 30 one-hour lectures and 10 two-hour laboratory sessions. You should attend all lectures and one laboratory session each week. Unless otherwise advised there will be three lectures per week: Monday 3–4pm, Wednesday 1–2pm and Friday 1–2pm, all in Manning Clark Centre, Theatre 1.

The two hour laboratory sessions will commence in Week 2, but there is a set of familiarisation exercises for you to do in your own time during Week 1. Every student must register for one practical group as soon as possible. Registration is through StReaMS (*St*udent *Re*gistration *a*nd *M*arks *S*ystem), accessible on the web at URL:

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http://cs.anu.edu.au/streams/
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Information Sources

The course web site is the main information resource. All documents and announcements relevant to COMP1100 will be available from these pages. The URL is

`http://cs.anu.edu.au/student/comp1100/`

Lecture notes, sample code, practical exercises, assignments and other handouts will be published on the course web site. Recordings of lectures will be available from the course's WebCT sister site.

Notices and announcements may be posted on the `COMP1100 Announce` forum, accessible from the course web site and through StReaMS. We encourage you to use the `COMP1100 Discussion` forum for student generated issues related to COMP1100. Teaching staff will monitor the discussion and may contribute from time to time.

The main textbook for the course is

> *Haskell: The Craft of Functional Programming (2nd edition)*, Simon Thompson, (Addison-Wesley)

Copies will be available on short loan in the library but you are encouraged to obtain your own copies.

Later in the semester, you may find one of the recommended texts for COMP1110 useful, such as *Big Java (3rd edition)* by Cay Horstmann (Wiley), or *Data Abstraction and Problem Solving with Java (2nd edition)* by Frank Carrano and Janet Prichard (Addison Wesley).

Assessment

There are several components to the assessment scheme for COMP1100.

Assignments (30%) There will be three assignments, worth 10%, 15% and 5% respectively. Their respective due dates will be near to weeks 6, 9 and 12.

Lab participation (5%) This mark will be based on your participation in practical classes and the satisfactory completion of set exercises.

Mid-semester quiz (10%) There will be a one hour open-book examination in week 7 to test your comprehension of the lecture material. It will be redeemable in the sense that if you score better on the final examination, we will use that percentage for the mid-semester quiz.

Final Examination (55%) There will be a three hour open-book final examination during the regular ANU examination period. This examination will test material from the entire course.

(In other words, the mid-semester quiz and the final examination count for a total of 65%. If your mark on the mid-semester quiz is *better* than your mark on the final examination, they will count for 10% and 55% respectively. If your mark on the mid-semester quiz is *worse* than your mark on the final examination, your mid-semester mark will be ignored and your final examination will count for 65%.)

Marks may be scaled to determine final results.

Deadlines

In general, there will be no extensions for assignments, the exception being for illness serious enough to stop you working, supported by a medical certificate. Other similarly unforeseeable and serious circumstances will also be considered if similarly verified. Without an explicit extension from the course lecturer, late assignments will be penalised at the rate of 10% per day (or part thereof). It is your responsibility to ensure that you have successfully submitted an assignment before its deadline.

Programming assignments can take an unexpectedly long time so you should try to complete most of the work well before the deadline. In the cases where we are using on-line submission, you should make a preliminary submission well before the deadline. You can then submit later versions after that, up to the deadline.

Seeking Assistance

We are here to help you learn. You can ask the course lecturer, tutors, consultants and other students. See the Assistance link on the COMP1100 web pages for more suggestions about how and when. In particular, we will schedule extra laboratory drop-in sessions where you will be able to seek extra individual assistance from one of the COMP1100 teachers. Times will be announced in lectures and on the course web site. You will be able to get help with assignments, lecture material and practical exercises that you may not have completed in class.