Welcome to

COMP1100 — Introduction to Programming and Algorithms

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Australian National University
Semester 1, 2006

What is this course about?

- Introduction to the basic principles of programming
- First part of a sequence COMP1100 + COMP1110
- About 2/3rds programming concepts using **Haskell**,
  a functional programming language, followed by . . .
- About 1/3rd introduction to **Java**,
  an object-oriented programming language, leading on to . . .
- COMP1110 using **Java**.

Core Topics

- Types and data structures
- Control structures
- Abstraction
- Modularisation

Philosophy

- ***Data-directed program design***
- ***Programming as a human activity***

Learning to program is a lot like learning a foreign language.

You must

practice, practice, practice . . .

COMP1100 Web Site

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

The main information resource and communication tool for the course.

Lecture notes, lab exercises, assignments, announcements, discussion forums, etc.

Linked from the WebCT pages.

Lectures

There will be at least 30 lectures, 3 each week:

- Monday 4–5pm
- Thursday 9–10am
- Friday 2–3pm

Attend all lectures — check web site regularly for schedule.

Lecture slides and sample programs on the web site.

Lecture recordings on WebCT pages.

Laboratory Classes

10 two-hour weekly laboratory classes, beginning in week 2.

You must register in a lab class as soon as possible.

Registration is on-line at `http://cs.anu.edu.au/streams/`

Check your timetable to avoid clashes.

Logging on to StReaMS will automatically create an account for you on the DCS Student System.

DCS Student Computing Environment

Different to other labs and InfoPlace at ANU – (Linux and KDE).

Handouts:

- Student Computing Environment User Guide
- Student Computing Environment Familiarisation Exercises

Once you have a DCS student account, work through the familiarisation exercises sometime ***this week***.

This will help prepare you for the first supervised lab classes in week 2.

Textbooks

Main textbook:

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

Later in the semester:

Big Java (2nd edition) — Cay Horstmann (Wiley)

This is also the textbook for COMP1110 in second semester.

Assessment

Assignments: 35% – three assignments
10% + 15% + 10% due near weeks 6, 9, 12

Lab participation: 5% – satisfactory completion of exercises

Mid-semester quiz: 10% – week 7, open book
redeemable against final exam

Final Exam: 50% – exam period, two A4 sheets of notes allowed

Learning how to program

- There will seem to be an endless number of minor details to be remembered. You can be a successful programmer without knowing them all.
- There will be many frustrations.
- Computers won't handle ambiguity.
- **Abstraction:** at different times in the process, different aspects are (temporarily) irrelevant.
- *Practice and experiment.*

What to do now:

- Make sure you have the four handouts:
  - COMP1100 General Course Information
  - Student Environment User Guide
  - Student Environment Familiarisation Exercises
  - DCS Student Handbook
- Check you timetable and register in lab classes at
  `http://cs.anu.edu.au/streams/`
- Get the textbook and read Chapter 1
- Go to the DCS labs
  Work through the familiarisation exercises sometime this week

Questions?