CITS1001

OBJECT ORIENTED PROGRAMMING AND SOFTWARE ENGINEERING

Semester 1, 2017: Introduction and Admin

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Computer Science & Software Engineering
Take control of your own learning

• Lecture
• Classes
• Exercises
• Book
• Web page
• Video notes (for the text)
• Discussion forum
• Study groups
• Practice, practice, practice!
Your Teachers

• Unit Co-ordinator
  Associate Professor Rachel Cardell-Oliver

• Teaching Assistants (Tutors, Labs)
  Arran Stewart
  Amardeep Kaur
  Michael Stewart
Course Content

• Introduction to object-oriented programming...
• ...with a strong software engineering foundation...
• ...aimed at producing and maintaining large, high-quality software systems.
Unit objectives

• In CITS1001 you will learn how to write simple computer programs using the Java programming language

• Today’s lecture will give you an overview of the unit and what you will have learnt by the end of the semester

Computer Science is no more about computers than Astronomy is about telescopes. (Edsger Dijkstra)
Goals

• Sound knowledge of programming principles
• Sound knowledge of object-orientation
• Able to critically assess the quality of a (small) software system
• Able to implement a small software system in Java
Unit philosophy

- CITS1001 is a first programming unit
  - No prior programming experience is assumed
  - But students’ backgrounds vary widely!

- No one can turn you into a productive programmer in one three-month course

- CITS1001 is the first in a sequence of units giving you
  - A detailed understanding of programming and software engineering
  - Excellent problem-solving skills
  - Exposure to a wide range of topics in ICT
Lectures

- Two lectures/week
  - Noon on Tuesdays in Social Sciences LT
  - Noon on Thursdays in Social Sciences LT
- The lecture slides will be available from the unit web-site
- All lectures are recorded, and the recordings will be available via the LMS
  - But note that sometimes recordings fail!
  - **Nothing else in CITS1001 will be available via the LMS**
- Lectures may occasionally be cancelled, e.g. during projects
  - This will be announced well in advance
Labs

- The labs are where you practice creating programs
  - The exercises for each lab will be on a lab-sheet on the web-site
- Labs follow the lecture material for each week.
- They run from Thursday (after the lecture) until the following Thursday morning.
- Supervised labs will be held in labs 2.05 and 2.01 the top floor of the CSSE Building, **starting 3pm Thursday week 1**
- Several sessions are available
  - The first two hours of each session are supervised
- Enroll yourself in one session
  - But feel free to attend as many sessions as you like
  - Or to do the work at other times
- Free Wi-Fi is also available
  - So bring your laptop!
Workshops

- 2pm on Fridays in Social Science LT, starting in Week 1
- No new material
  - Student-driven questions
  - Additional examples complementing the lectures
- Aimed principally at students who feel they need extra support
  - All questions are welcome, but priority will be given to more-basic questions

The only stupid question is the one that isn’t asked!
Online

- **Everything** that is distributed in CITS1001 will be on

  http://teaching.csse.uwa.edu.au/units/CITS1001

- The only exception is the lecture recordings, which will be available via the LMS

- Familiarise yourself with the web-site!
  - You will benefit from being able to find things quickly when required
help1001

• Online discussion forum, based on the philosophy of

  READ FIRST: if the answer is not there, THEN POST

• Asking questions is useful
  • Normally the quickest way to get help
  • Sometimes just formulating a question properly is enough for you to realise what the answer is

• Answering questions is useful
  • Explaining something helps you to understand it
  • And it generates good karma too!
  • Prizes will be awarded at the end of semester for the most helpful people
Announcements

• Announcements will be made in three places
  • On the unit noticeboard on the web-site
  • In CIT1001 lectures
  • On help1001

When an announcement has been made in these three places, we will assume that you are aware of it.
Text and other resources

• The text in CITS1001 is *Objects First with Java*, Barnes and Kölling, Sixth edition (2016)
  • Earlier editions should be fine

• Other useful resources are available on the web-site

• But there are thousands of Java resources out there
  • Go and look!
  • If you find something useful, please post a message on *help1001* so others can benefit
BlueJ

- Programming activities in the CITS1001 labs will be based on the BlueJ IDE
  - “A free Java development environment designed for beginners”

- You can download BlueJ for your home machine for free at [www.bluej.org](http://www.bluej.org)
  - It is available for all major platforms

- You can use any Java system you like at home
  - But all work submitted for assessment will be tested on BlueJ
Assessment

• Assessment is based on both understanding concepts and on creating systems
  • Mid-semester test
  • Two programming projects
  • Final exam

• Everyone here is capable of passing CITS1001
  • But history tells me that 10-20% of the group will fail
  • Which subset do you want to be in?
Seeking help

- There are many avenues for getting help in CITS1001
  - Ask questions in or after lectures
  - Lab supervisors
  - The workshop
  - help1001
  - Lecturer consultation times (Thu 1.30-2.30pm, Office 1.20 CSSE)
  - www.student.uwa.edu.au/learning
  - The world-wide web

- The only stupid question is the one that isn’t asked!
  - In a group this size, if you don’t understand something, certainly there will be others in the same situation
UWA compulsory online modules

- All students are required to complete three online learning modules
  - Academic Conduct Essentials
  - Communication and Research Skills
  - Indigenous Study Essentials

- [www.student.uwa.edu.au/learning/resources](http://www.student.uwa.edu.au/learning/resources) has the details of these modules
Things to do this week

• Activate your UWA computer account
  • [www.ecm.uwa.edu.au/students/itsupportnew](http://www.ecm.uwa.edu.au/students/itsupportnew)
• Sign up for a lab class (labs start on Thursday)
• Read and review the lecture notes
• Get a copy of the text
  • And start reading it!
• Familiarise yourself with the unit web-site
• Bookmark the video lectures for the text book
  • [https://www.youtube.com/playlist?list=PLYPWtr4ErjcnzWB95MVvIKArO6Plfv1fHd](https://www.youtube.com/playlist?list=PLYPWtr4ErjcnzWB95MVvIKArO6Plfv1fHd)
• Install BlueJ on your home computer
  • And if you will be using your laptop on UWA’s Wi-Fi, set up Unifi wireless access