

EE106 Engineering Design For Software Development

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No Mobile Phones.....ever!



What is this class about?

- Introduction to computer programming
- No prior experience required
- Python 3.x.x used as a language
 - Note, not Python 2.7.x!
 - Focus on Programming rather than the language, Python is just a vehicle

Logistics

- Practical course based on laboratory sessions
- Labs: 9:00 – 12:00 Fridays JW4.11
- Lectures Tuesday 12:00 – 13:00 RC5.40
- Labs start this week
- Attendance at labs is mandatory, attendance is taken

Logistics

- Labs consist of exercises plus Problem Sets
 - Ensure these are marked off when complete!!!
- Teaching Assistants are there to help you learn, not to police the lab
 - Please be respectful
 - Complete the Problem Sets on your own
- Assessment method based on demonstrated exercises, class test and project assignment ...

Assessment

- Semester 1 30 Lab exercises (30%)
- Semester 1 online test (10%)
- Semester 2 Interim Report (20%)
- Semester 2 Final Report (20%)
- Semester 2 Demonstration (20%)

- Semester 1 score used to form Semester 2 groups!

Textbook

- Much free information available on the web
 - Make sure it applies to Python 3 though
- Dive into Python 3, by Mark Pilgrim
 - <http://getpython3.com/diveintopython3/>
- Some course notes provided
 - Lectures do not follow course notes closely – take your own notes

Computer programming

- Programming is perhaps the most powerful skill you will learn at university
 - Its flexibility enables wide application
- Programming is:
 - Fun
 - Infuriating
 - Both

Why Python

- Simple syntax – easy to learn
- Interpreted language – easy to debug
- Its free

Class content

- Assignment and operators
- Decisions and branches
- Loops and iteration
- Bespoke data types and classes
- Importance of testing

Testing

- A program can:
 - Execute normally and terminate
 - Terminate with an error
 - Never terminate, is it finished?
 - **Execute abnormally and terminate**
 - Produce wrong result – very dangerous
 - Need testing strategies

Academic Dishonesty

- Plagiarism is a form of academic dishonesty
- University regulations prohibit this
- Copy and paste of code from another source is not permitted!
 - Other students
 - External sources: books, internet

Any questions?

Now, quick demo of how to use
Spyder ...

