COMP105 Lecture 1

Course Details

Admin

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Three lectures a week

- Monday 9:00 AM
- Tuesday 9:00 AM
- Thursday 9:00 AM

Will be posted on the COMP105 Canvas site

Weekly Homework Sheets

Every week there is a **homework sheet**

- Released on Monday at 9:00 AM
- Help session on Friday 1:00 PM – 4:00 PM
- Submission deadline on Friday at 4:00PM

These are intended to help you practice the material

- They cover material from all lectures during the week
- Marked on a pass/fail basis (worth 10% of the module credit)
- Full credit awarded for submitting a **reasonable attempt**
- You don't have to solve everything

Guidance: spend around 1–3 hours on the homework

COMP105 Learning outcomes

At the end of the module, students will be able to

1. Describe the imperative and functional programming paradigms including the differences between them.

2. Apply recursion to solve algorithmic tasks.

3. Apply common functional programming idioms such as map, filter, fold and scan.

4. Write programs using a functional programming language.

Assessments

The module is 100% coursework

- No exam!

There are five components

- Three programming assignments
  - Assignment 1: recursion (worth 20%)
  - Assignment 2: functional programming idioms (worth 20%)
  - Assignment 3: write a full program (worth 25%)
- One class test (worth 25%)
- Weekly homework sheets (worth 10%)

Provisional Schedule

Assignment 1

- Set around week 4, deadline around week 6

Assignment 2

- Set around week 7, deadline around week 9

Assignment 3

- Set around week 10, deadline around week 12

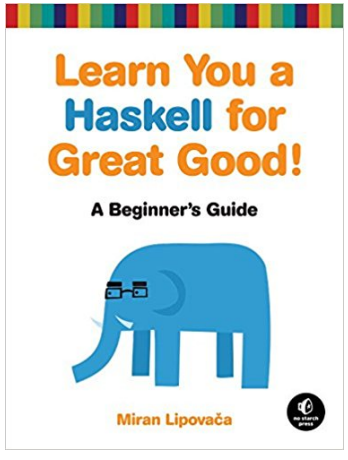
Class Test

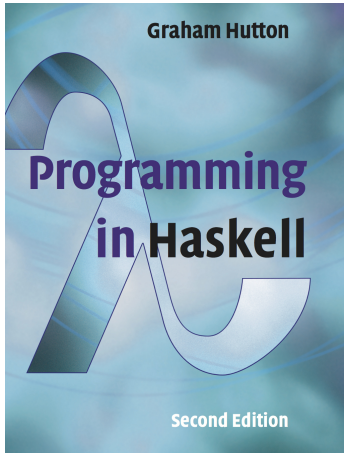
- Some time in weeks 10 – 12

Course Texts

There is no required text for the course. Recommended texts:

- Learn You a Haskell for Great Good! by Miran Lipovača
  - £35.99 on Amazon
  - Free online: `http://learnyouahaskell.com/`
- Programming in Haskell, Second Edition, by Graham Hutton
  - £29.99 on Amazon





Installing Haskell

You will need to have access to a Haskell installation

Options

- Install Haskell on your own machine
  - Instructions are in the week 1 homework sheet
- Remotely access a CS lab machine
  - Follow guidance of the CS tech team

What should you be doing

Of course

- Watch lectures
- Do homework sheets

Self study: coding

- You **cannot** learn to code watching a lecture
- The "ah-ha" moments will come at the keyboard
- Every lecture (Lec 3 onwards) has exercises – do them!

What should you be doing

Functional programming is **completely** different from what you've seen before

- You won't be able to fit it into an imperative mindset
- It might be like learning to code all over again
- It is easy to get frustrated

Stick with it!

- It will get easier as the course goes on
- Try to put aside your imperative experience

How to get help

If you get stuck during the module

- Ask questions by email
- Ask questions on MS Teams
- Ask questions in the weekly help session
- Read one of the texts
- Google/Stack Exchange

Don't suffer in silence!

Don't give up!