SCC121 Fundamentals of Computer Science

School of Computing and Communications

Module Aim

At the end of this module you should be able to:

- understand the role of discrete mathematics and logic
- design algorithms using common data structures
- analyse the efficiency of algorithms
- understand the role of abstract data types

How this course is taught

Lectures (2 x 1 hour per week)

Michaelmas Term

	Discrete Maths	and Logics	W1-W5	Corina Sas
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Data Structures W6-W11 Amit Chopra

Lent Term

Algorithms and Complexi	tv W12-W15	Emma Wilson
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Sorting, Trees, Graphs W16-W20 Fabien Dufoulon

Summer Term

Linear Algebra; Searching and Sorting; W21-W25 All

Sorting and its efficiency; Revision

Lectures

Workshops (1 hour per week)

- All weeks (except weeks 1 & 11)
- Run with TAs

Teaching Team



Dr Emma Wilson (Course Convenor) e.d.wilson1@lancaster.ac.uk



Dr Amit Chopra amit.chopra@lancaster.ac.uk



Prof Corina Sas c.sas@lancaster.ac.uk



Dr Fabien Dufoulon f.dufoulon@lancaster.ac.uk

Moodle

- Moodle is our main communication channel
- You can find lecture slides, videos, workshop exercises here
- Check Moodle often
- Check your email daily for announcements

Module Assessment

- 1. Coursework CW (30%)
 - E.g., in-lab quiz in Week 5 10, 15 and 20
- 2. Exam (70%)

Plagiarism

- Coursework is submitted online and checked for plagiarism automatically
- We caught several cases last year
- What is plagiarism?
 - Passing off someone else's work as your own, including:
 - Submitting answers that someone else wrote
 - Paying for someone else to do it for you
 - Working on a piece of non-group work together as a group, and submitting it as individual work
 - Sharing of code that you then possibly adapt
 - If you give someone else your work, you can also be called in for plagiarism

Workshops

- Workshops start in week 2
- Exercises based on content from previous week
- Revise previous week's lectures in advance!
- Can work on lab machine, or bring your laptop (if possible) or pen and paper for doing the exercise
- Solutions to exercises posted before workshops
- TAs run workshops
- TAs are there to help you! Don't let them idle!

Module Refreshed

Curriculum revision
Better student experience

- Joint labs across 3 of Part 1 modules
- New topics
- C instead of Java in code examples

What We Expect from You

Integrity (no plagiarism, no faking results) and effort (active learning):

- attend lectures and workshops <u>are compulsory</u>
- ask questions in lectures/workshops
- take notes in both lectures and workshops
 - evidence shows that hand written are better
 - slides are not enough when you try to revise
- read the provided slides and engage with the recommended readings; read around the subject/try things for yourself
- plan your time and coursework carefully

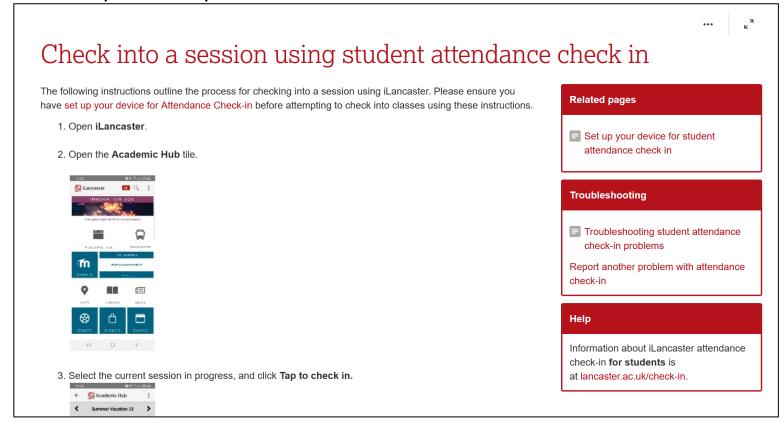
What You can Expect from Us

We'll do our best

- to make all teaching material available on Moodle
- to give you references to follow up
- to ensure that workshops are running smoothly, and the TAs are offering support
- to arrange extra support if you've already tried the normal routes (book, web, forum, TAs)
- to offer feedback on coursework promptly (within 4 weeks expected timeline)
- to respond to email, after you have tried the above avenues

Compulsory Attendance

- For face to face sessions, use iLancaster app.
- More info: https://www.lancaster.ac.uk/student-and-educationservices/check-in/



How do I get help?

- Please use the workshops to ask for help
- We expect you to have
 - a) read the slides
 - b) looked at suggested readings or books
 - c) tried solving the exercises yourself
 - d) asked the TAs first in the workshop
 - e) asked the relevant academic in the teaching team

Additional Support

- The Base most issues
 - Student based services
 - http://www.lancaster.ac.uk/student-based-services/
- Counselling Team wellness guidance
 - https://www.lancaster.ac.uk/study/whylancaster/wellbeing-and-support/