The Computer Science Registration Lecture

for

All Computer Scientists
NST students taking the CS option
PBS Students taking the CS option
Useful People To Know

Professor Andy Hopper CBE FRS FREng FIET
Head of the Computer Laboratory

Professor Ann Copestake
Deputy Head for Teaching
Ann.Copestake@cl.cam.ac.uk

Dr David Greaves
Chair of the Tripos Management Committee
David.Greaves@cl.cam.ac.uk

Dr Robert Harle (me!)
Part IA Co-ordinator
Robert.Harle@cl.cam.ac.uk
Course Structure

- There are **two** IA CST examination papers at the end of the year:
  - **Paper 1** – taken by everyone here
  - **Paper 2** – ONLY for CST and **not** NST or PBS

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Lectures

Paper 1
- MWF 10-11
- Arts School Room A
- Foundations of CS
  Object-Oriented Programming
  Algorithms
  Numerical Methods

Paper 2
- MWF 12-1
- Arts School Room A
- Digital Electronics
  Operating Systems
  Discrete Maths
  Software and Interface Design
Optional Fundamentals Lectures

- We don't assume that you have studied any Computer Science before or that you have programmed computers before. However, many of you have some experience.
- To help fill in gaps in knowledge there are four optional lectures given by me:

  **Computer Fundamentals**  
  Optional 4-lecture course  
  Wednesdays, 4.15-5.15pm  
  In Lecture Theatre 1 - HERE

- The topics of each of these lectures will be emailed in advance. *The content may be assumed in other courses so you should attend if you are unfamiliar with any topic.*
Lectures should be Active not Passive!

- We give you lecture notes and some of you will take this as a cue to just kick back and listen in lectures
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5% chance of info retention

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Recordings

- With modern phones it is tempting to start recording lectures for later perusal. But:

  **Recordings are forbidden**
  Unless you have explicit permission from the department or lecturer

- Applies to video AND audio

- Even with permission, you must only use it for private work and destroy it asap without sharing.
• CS Practicals are called *ticks* because they are pass/fail. For each tick, you have multiple attempts to pass. Most students get 100% of their required ticks and this should be your aim.

• NST/PBS students must compete **10** of the ticks to get full marks:
  • ML ticks 1-4, Java ticks 1-5, Algorithms tick 1

• CST students collect **20** ticks:
  • ML ticks 1-5, Java ticks 1-7, Algorithms tick 1, Digital Electronics ticks 1-7

Ticks are in **this building**
Upstairs in the Intel Laboratory
Practical Allocations

A
Thursdays
4pm-6pm ML/Java

B
Thursdays
2pm-4pm ML/Java
Practical Allocations

A
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B
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AE
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Weeks 4,6,8
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AO
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Odd
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[CST Only]
Practical Allocations

- The group assignments are now available at http://www.cl.cam.ac.uk/teaching/1314/Registratn/
- That link will also be emailed to you
- If you want to swap into another session, this is OK but you need to find someone to swap with

CHECK YOUR @CAM EMAIL REGULARLY
Wednesdays (CSTs only)

- For the first time we have asked that all CST students keep Wednesday afternoons free too.
- This allows us extra Paper 2 practical time for catch-up sessions, examples classes etc

Occasional Wednesday practicals for CSTs only
Email notification will be given
Best to keep the slot free of supervisions etc
Ticking Process

Do tick exercise in allocated session

Sign up online for a ticking slot within your session

Print solution

Meet ticker and go through solution

Printout initialed
File away

OK

Needs correction

Do tick elsewhere
The Tick Signup for ML/Java

- Online system for 5 min ticking slots
- First come, first served
- Sign up in advance or on the day
Running Ahead

- Practicals often align to roughly to lectures
- But we give you all the ticks at once so you can race ahead if you like
- Beware: you might not learn as much this way. Ticks can be solved in different ways and you might miss the clever subtleties...
Starred Ticks

- Some of the ticks have an extension called a 'star' to challenge you if you find the core tick easy.
- These do **NOT** count towards anything exam-wise and are strictly **OPTIONAL**.
- But you get kudos for doing them so if you find the core tick easy, why not..?

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**Exercise 1° — Recursive Functions Continued**

*Note that although the following problems will not count towards a 'tick', it is a good idea to attempt them before next week’s exercise.*

*Remark:* The function `real` converts an integer to a real number. The function `floor` converts a real number `x` to the largest integer `i` such that `i \leq x`. These functions will be useful in the examples below, which involve both integer and real calculations.

1. Write an ML function `sumt n` to sum the `n` terms.
The Tick Portfolio

- Each tick ends in a signed printout which you show a Ticker. He/she will ask you some questions on it and, if satisfied, will sign your printout.
- You keep your tick in a tick portfolio to be submitted to the examiners at the end of the year.

KEEP YOUR TICKED PRINTOUTS YOU NEED THEM AT THE END OF THE YEAR!
We do not use camTools for lecture material. Instead, you will find everything on our website, www.cl.cam.ac.uk/teaching

- Syllabus
- Books
- Lecturer contact details
- Electronic copies of notes
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- Errata
- Additional material from the lecturer
Syllabus Booklets (Errata!)

- If you have a hard copy of the syllabus booklet please note that some course syllabuses (OOP especially) have been updated on the web.
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http://www.cl.cam.ac.uk/teaching/
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The content is *not* arranged or given by this department.

Information should have been provided in your NST practical allocation email yesterday.

If you do NST Maths you need to do the Scientific Computing course as well as this option.
Feedback 1: SSCOF

• **Staff-Student Consultative Forum**
  
  • Allows you to give feedback to the department on anything from ticks to room temperature.
  
  • You elect a CST and an NST/PBS representative to this committee. They will periodically ask for your input.
Feedback 2: Course Feedback

- We use electronic questionnaires after each course to gather specific feedback and improve.
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Computer Laboratory Tripos Registration

Professional Bodies

- Computer Science in the UK has two main professional bodies: the IET and the BCS
- Both have accredited our course so you are all eligible to join them. More details on the registration pages

The Chartered Institute for IT

- Can get chartered status
- Student: £32 for one year
- £52 for up to four years
- [www.bcs.org/student](http://www.bcs.org/student)

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What you should do ASAP

1) Check you know where your lectures are
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