

# Live Q&A 1 Transcript

## **Do you have to do the reading material?**

Yes, you have to do the readings.

## **What are the exam questions like?**

Multiple choice; the material in the tutorial questions are similar to that of the final exam.

## **Are we going to cover every skipped chapter?**

No, but if you are interested in a particular chapter, read it!

## **How do we manage between each module?**

Management is always a challenge. It depends on the person. Josh recommends 6-7 hours for CS1.

## **What if we get <40% on the first attempt but then retake and get >40%?**

As far as I'm aware, you can't retake quizzes.

## **I haven't done A-Level computer science. Will I be disadvantaged?**

The modules are set up so you can learn them without any previous knowledge. You might have to work a little harder. We will move on to advanced topics in the coming weeks.

## **I've watched/read everything but it doesn't stick.**

If it's just the reading that isn't sticking, try exploring different ways of absorbing the material. There is a course for online learning, so if you are struggling, you might be interested in taking this.

## **Where can we get exam-style questions?**

The tutorials will be roughly the same difficulty as the exam questions. There aren't any this week.

## **Are you a gamer?**

I wouldn't call myself one, but I do play video games

## **How will the exam be formatted?**

There will be plenty of time to prepare, so don't fret. It will be multiple choice.

## **Will the workload be consistent every week?**

Yes. The content is structured to be equal. You might find it challenging depending on your background.

**How are you?**

I'm doing well, thank you. This might be the earliest class I've had to give, but I've had my coffee good.

**Why are the quizzes timed?**

There's a timer, but it's not going to impact your assessment.

**Will there be past papers?**

There will be one entire paper we will look at. The college has a policy that they are not allowed to release past papers with multiple choice questions.

**Any other examples of natural computers?**

You could study computers not as an engineering problem, but as a natural phenomena. There's a whole field called computational biology. Examples is DNA, the brain.

**Are we supposed to memorise everything?**

You shouldn't "memorise" everything. You should seek to understand the concept.

**Is there a deadline for the quiz?**

For the first week quiz, there isn't a deadline. For future quizzes, there may be deadlines, but they will be flexible. Work through the semester!

**Does the book have a lot of irrelevant information?**

I wouldn't say any knowledge is irrelevant. Everything that's covered in the reading, I've made sure it contributes to your understanding of the topic. There may be things in the book that won't turn up in your exam. That doesn't mean you shouldn't do the readings.

**Not sure how I should be taking notes, I've never been good at it**

There isn't one way to take notes. Make notes live with the lecture, make notes after the lecture, try to summarise after the lecture in your own words, make more detailed notes to lecture slides. Talk to other students to find what they're doing.

**What games do you play?**

Among Us, but that's about it.

**How much maths is in this module?**

You're not expected to do maths at A-Level. If you know about powers, multiplication, division, etc., then this is more than sufficient.

**Do we need to know any specifics about hardware (PCIe, SATA, etc.)**

I'm not gonna ask a question in the exam about a specific piece of hardware. I think having a broad understanding of hardware and features of the computer is going to reinforce your understanding.

**Do we need to remember exact examples given during lectures/in the book for the final exam?**

Again, it's more important you understand the concepts rather than regurgitating facts you remember.

**Do we have coursework for this module?**

No.

**Will any CS1 tutorials be recorded?**

Large group lectures like these will be recorded.

**If we learn all material will we get a first, or is learning the material the bare minimum?**

Firsts are hard to obtain. If you get a 70%, you'll get a First. You need to study hard and be a strong student to get a First. You need to have a really good understanding.

**Does the program counter lie in a dedicated register area or in the control unit?**

Most depictions are abstractions. In most cases, it will be a register in the CPU, but you can imagine it as being part of the CU.

**How would you explain how the von Neumann model is useful today and why it hasn't been superseded by a better model?**

In traditional non von Neumann models, programs are encoded by the computer hardware. In order to reprogram the computer, you have to rewire physically. We are on the cusp of making a breakthrough with regards to more powerful computers using a different architecture. An example is a quantum computer.

## Is a light switch a computer?

Our definition of a computer requires three components to be studied as a computer: memory, a processor and input/output. In this module, when we use the term computer, we do not single it to Personal Computers.

It has memory as it stores a state of on and off.

Is there any processing going on? It's hard to say, but the format of data is changing. It is changing a physical state to an electronic state.

Think of it as “Is it useful to think of a light switch as a computer?”, in which case, no, it isn't. It isn't going to help understand the device in any way.

## Next week:

- Lecture videos, reading, a quiz
- Tutorial questions and Small Group Tutorials
- Future live sessions moved to Thursday 9:30-10:30 BST
  - Submit your questions before the session