

A-LEVEL COMPUTER SCIENCE

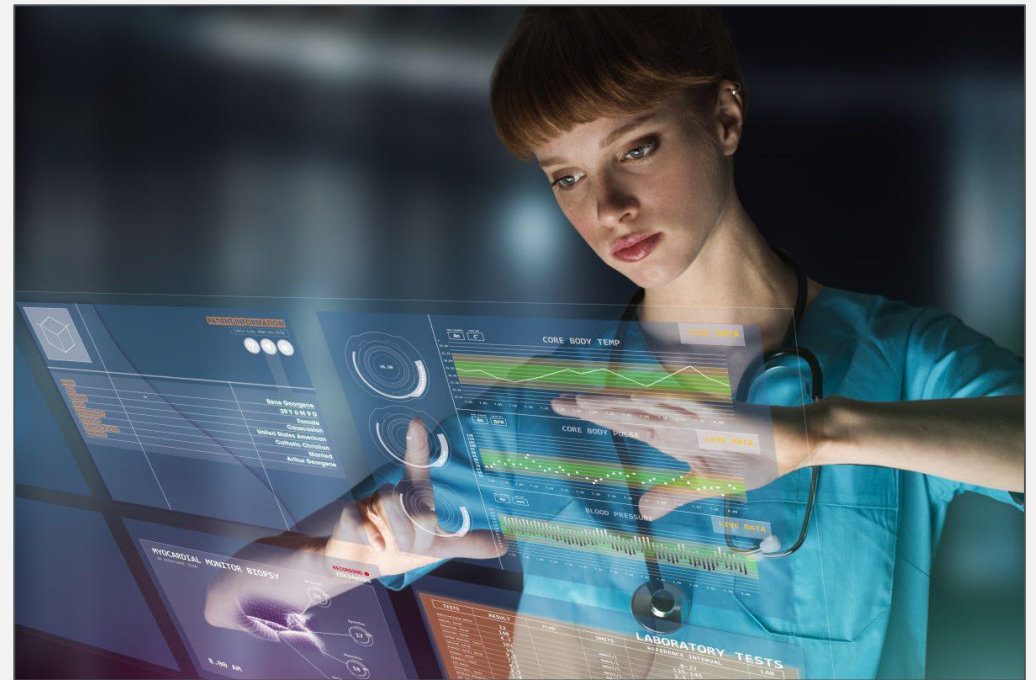
Mr Williams

WHILE WE WAIT FOR PEOPLE TO JOIN...

What do you think are the skills of the future?

What skills do our young people need to get good jobs and do well in life?

Feel free to write your thoughts in the comments of this zoom call.



DIGITISATION IS CHANGING EVERYTHING

Automation is causing a number of current employment sectors to shrink.

7.4% of current jobs in England are at 'high risk' from digitisation and automation in the coming years (Office for National Statistics, 2018)

Digitisation is also creating jobs, in completely new sectors.

65% of current primary school children will work in jobs that do not exist yet (House of Commons, 2017: 7)

PLAN FOR THE CALL

- Focus of the course
- How the course is assessed
- Detail on course content
- What this course leads on to
- Answering your questions (on chat)

FOCUS OF THE COURSE

- Computer Science A-level focuses on how computers work.
- It is a practical subject, where students can apply the academic principles learned in the classroom to real-world systems.
- It is a creative subject, focusing on problem solving, system design and programming.
- Learners will develop an ability to analyse, critically evaluate and justify recommendations and decisions.

HOW THE COURSE IS ASSESSED

Content	Assessment	Total of A-Level
01. Computer Systems	<ul style="list-style-type: none">● 2 ½ hour written exam (no calculators allowed)● Worth 140 marks● May/June 2022	40%
02. Algorithms and programming	<ul style="list-style-type: none">● 2 ½ hour written exam (no calculators allowed)● Worth 140 marks● May/June 2022	40%
03. Programming project	<ul style="list-style-type: none">● Internal assessment● Worth 70 marks● Autumn term 2021	20%

THE COURSE CONTENT

Unit	Content
01. Computer Systems	<ul style="list-style-type: none">1.1 The characteristics of contemporary processors, input, output and storage devices1.2 Software and software development1.3 Exchanging data (Databases, Networks, Internet)1.4 Data types, data structures and algorithms1.5 Legal, moral, cultural and ethical issues
02. Algorithms and programming	<ul style="list-style-type: none">2.1 Elements of computational thinking2.2 Problem solving and programming2.3 Algorithms

THE COURSE CONTENT

Unit	Content
03. Programming Project	<p>Learners will be expected to analyse, design, develop, test, evaluate and document a program written in a suitable programming language (defold).</p> <p>Learners are expected to apply appropriate principles from an agile development approach to the project development.</p> <p>Learner submission will be through a report, documenting the stages of project development.</p> <p>Much more robust marking criteria than GCSE programming project.</p>

SUITABILITY

- The Computer Science GCSE (OCR) naturally leads into the A-Level
- Computer Science GCSE is not essential to study the A-Level
- While a GCSE in Computer Science is not essential, strong mathematical skills will help with different areas of the course.

LEADS ON TO

- Further Study: Computer Science is a well respected A-Level which can lead on to a variety of courses, especially University degrees.
- Computer Science can lead to a huge variety of career options too such as game design, cyber security, digital marketing and future technologies.

ANY QUESTIONS?

Please type your questions into the chat and I will answer them