A Level
Computer Science

Why study this course at Cronton Sixth Form?

Computer Science is an exciting and constantly evolving subject, with a job market that is expected to grow exponentially over the next 10 years. The Liverpool City Region have the second fastest growing Digital and Creative sector in the UK and now more than ever it is an exciting time to get involved in the subject. With skills and knowledge developed in key areas required by the Liverpool City Region Digital and Creative sector and support from an Outstanding college, you will be well positioned to higher education or employment at the end of this course.

What will I study?

You will be taught how to program using Python which you will apply in a range of contexts, including in your own project which is yours to take into a direction you wish. Your project can range from a website development or application to a hardware solution such as developing a complex robot. Some previous experience of Python will be helpful; however, we can support you to develop these skills if you are new to programming or this programming language. Alongside this you will study the mathematics of Computer Science, as well as exploring the construction of a computer and how the internal components communicate and apply your own life experiences to the moral and ethical issues arising with Computer Science.

How will I be assessed?

You will complete two exams at the end of your course.

Paper 1 is an On Screen Programming Paper in Python, Paper 2 is a traditional written paper on Computer Science Theory. In addition to this you will undertake a Non Examined Assessment project which is worth 20% of your final grade.

Entry Requirements

A minimum of 3 x 5's and 2 x 4's at GCSE including a Grade 5 in Maths, a Grade 5 in English Language and a Grade 6 in Computer Science. (If you didn't take Computer Science at GCSE you will require a Grade 6 in Maths).

Can I study this course if I have not taken it at GCSE?

Yes! We welcome students who have not taken this at GCSE and work with you to support any knowledge gaps you may have. Sometimes new Computer Science students are worried due to having limited previous experience, but our teaching team are here to help and guide you along the way.

Centre of Excellence in STEM

Students studying on the IT and computing courses at Cronton Sixth Form will have the opportunity to access new facilities as part of our £6 Million investment which is home to our brand new computing suites including state of the art Gaming PCs. The College is an Adobe Accredited Centre and CISCO Academy.

During your course you will have the chance to experience industry workshops and trips including a visit to the National Videogame Arcade for a workshop with an industry professional, crack codes and ciphers at Bletchley Park and go to the EGX video games event.

The Cronton Experience

At Cronton you can take part in many enrichment activities such as:

- **The High Achievers Programme**
- **Professional Programmes for Tomorrow's Scientists, Lawyers and Teachers**
- **Centres of Excellence in STEM, Performing Arts and Sport**
- **Student Leadership Team**
- **College Sports Teams**
- **TASS (Talented Athlete Scholarship Scheme)**
- **The Duke of Edinburgh's Award**
- **International Trips**
- **Scholarships**

Ofsted Outstanding Provider

Learn more about the Cronton Experience at:
www.cronton.ac.uk/experience

Enrichment Opportunities

There are a variety of Enrichment activities that you can get involved in ran by the team including; competing in local and national competitions such as the Bebras Computing Challenge, Cyber Discovery and Cyber Centurion and also other academic enrichment activities including access to Cisco IT Essentials, Cisco CCNA and Adobe Certified Associate exams. We also run enrichment activities including Virtual Reality Club and Missing Map Mapathons. Our students also enhance their studies by taking part in different trips including: EGX – UK's largest computer game convention, National Media Museum and Bletchley Park – the home of the codebreakers. We also organise international trips with our most recent one being to Disneyland Paris for Computing Live!

Other enrichment opportunities open to you across the college that link to this course are:

- Prestigious Universities Programme
- Prestigious Studies programme
- Centre of Excellence

What can this course lead on to?

Many of our student's progress to studying Computer Science at University, including Russell Group establishments. Another option students consider is a degree apprenticeship. From both these routes you could progress on to Application Development, Games Design, Computer Forensics or Artificial Intelligence to name a few possible careers. You could also stay at the college to complete a Higher National Diploma in Computing with the teaching team you will have built a strong relationship with over your course. This can progress to a top up degree, allowing you to achieve your potential right here with us!

Any additional costs?

You need to bring along standard stationery and a set of files to store your work. Staff recommend purchasing AQA AS and A Level Computer Science by Heathcote (ISBN: 978-1910523070) to broaden your understanding of the subject, however this is not essential to the core of your studies. All other course materials will be provided by the department.

What have previous students said about this course?

"The course is really informative, fun and interesting. The facilities are great at Cronton and support your studies. The first term also involves getting to know your tutors and other students studying this subject, making you feel comfortable in your surroundings and meeting new people."

Outstanding Facilities

The College has invested £18 million in new state of the art facilities, including a brand new teaching block which houses a digital technology suite with modern state of the art PCs.

Meet the Students

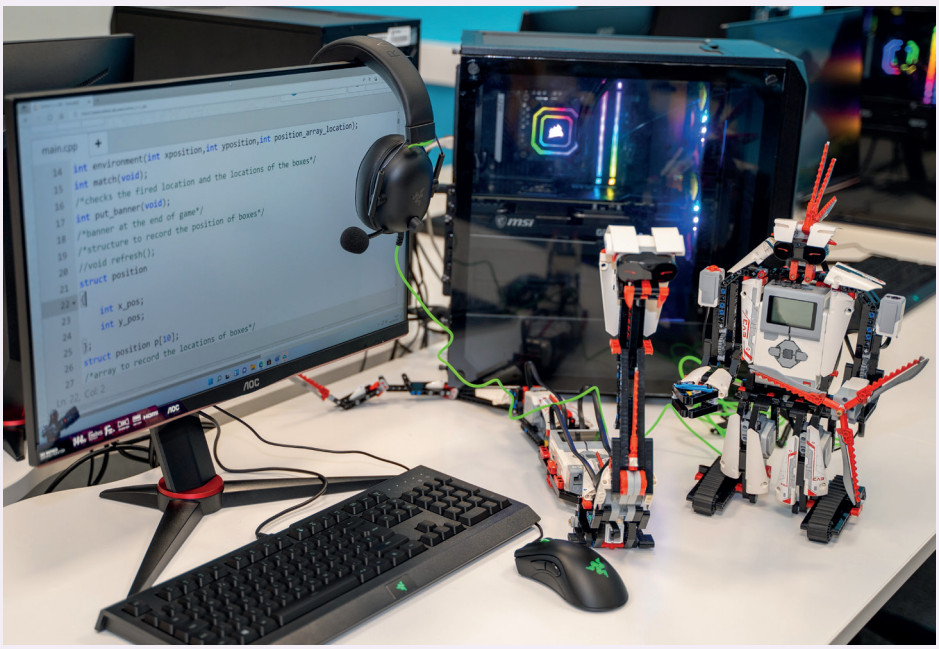
Name:
Jessy Sodimu

Previously from:
Cardinal Newman Catholic High School

Destination:
University of Bath, Computer Science and Mathematics

A Level Results:

Maths	**A***
Further Maths	**A**
Physics	**A**
Computing	**A**



CRONTON SIXTHFORM COLLEGE

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