

Computing Science Advanced Higher

Why take this course?

Computers are a fundamental part of our world. We all use Apps and Websites every day but we need people to design and build them.

This course is designed for students who have a specific interest in Computing and Information Science as well as those considering a career in Computing disciplines. You will be required to undertake a substantial amount of planning and reading.

To succeed in this course, you need...

- To have attained Higher Computing Science;
- To be interested in learning more about computers and technology. This course includes theoretical content and practical activities;
- To be able to work autonomously during the tasks in order to complete your project.

Course structure and Content (Subject to change by SQA)

Software Design and Development

- You will learn how to plan, manage and implement complex Computing projects.
- You explore a range of advanced concepts and processes relating to software design and development, including complex algorithms, data structures and high-level programming. You will develop skills in designing, developing, testing and evaluating well-structured, modular programs through practical tasks, using appropriate programming languages in a range of contemporary contexts.
- You will develop your knowledge of databases and learn how to create whole databases using SQL instructions. **(not covered in 2020-21)**
- You will use PHP to create dynamic webpages using loops and variables and based on the content of a database. You will create webpages that are able to consult and modify the content of a database.

Project

The project offers you an opportunity to develop your knowledge of Computing Science at Advanced Higher level and to apply this knowledge to a topic that interests you. You are expected to choose a suitable project topic that is meaningful and appropriate requiring challenge and application. You produce a brief project proposal, discuss it with your assessor and obtain approval to continue.

The project will assess your skills in planning and designing a solution to a problem, implementing and testing a solution, and evaluating and reporting on that solution.

Course Assessment (Subject to change by SQA)

To gain the award of the course, you must complete a project during the course. The project will be externally assessed (50%). An additional external assessment (50%) will take the form of a 2.5 hours written paper. The course will be graded A-D.

Essentials

No specific equipment is required; however, having access to a computer at home is recommended.

Where might this course take me?

Computing specific jobs can be found in areas such as Software Engineering, Database Design and Administration, Telecommunications, Oil & Gas Industry, Computer Technical Support, Network Administration, Games Development, Teacher/Trainer.

Not only will you acquire knowledge and learn programming skills, Computing will also improve your ability to problem solve – an excellent attribute that all employers look for.

