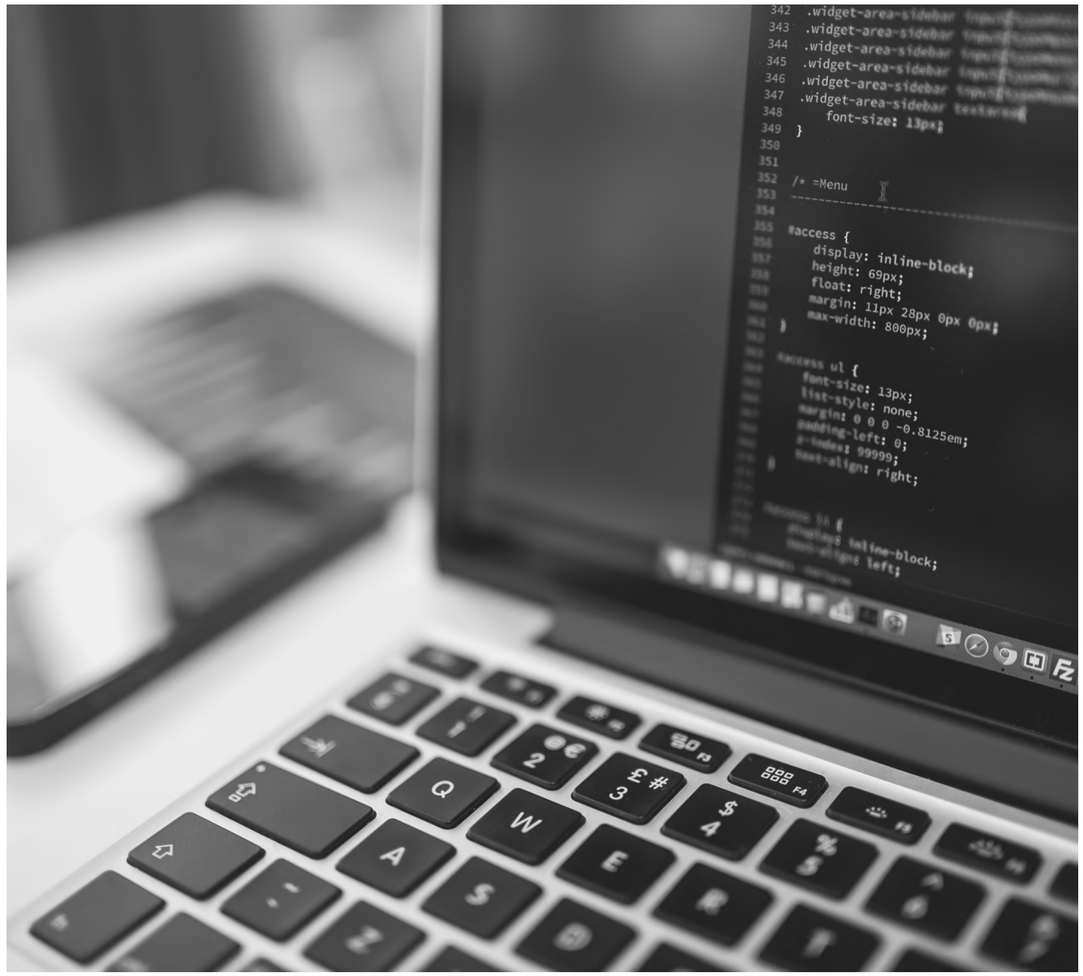
Computing Science

National 5

Progression through Computing Science

Higher Computing

Computer Games Development (SCQF 5/6)



Course Content

Computing Science shapes the world in which we live and its future. The course brings together elements of technology, science and creative digital media, providing an insight into the challenge, excitement and reward to be found in these areas.

Software design and development
Candidates develop knowledge, understanding and practical problem-solving skills in software design and development, through a range of practical and investigative tasks using appropriate software development environments. This develops their programming and computational-thinking skills by implementing practical solutions and explaining how these programs work.

Computer systems
Candidates develop an understanding of how data and instructions are stored in binary form and basic computer architecture. They gain an awareness of the environmental impact of the energy use of computing systems and security precautions that can be taken to protect computer systems.

Database design and development
Candidates develop knowledge, understanding and practical problem-solving skills in database design and development, through a range of practical and investigative tasks. This allows candidates to apply computational-thinking skills to analyse, design, implement, test, and evaluate practical solutions, using a range of development tools such as SQL.

Web design and development
Candidates develop knowledge, understanding and practical problem-solving skills in web design and development, through a range of practical and investigative tasks. This allows candidates to apply computational-thinking skills to analyse, design, implement, test and evaluate practical solutions to web-based problems, using a range of development tools such as HTML, CSS and Javascript.

Skills Developed

The National 5 Computing course provides opportunities to enhance skills in planning and organising, working independently and in teams, critical thinking and decision making, research, communication, and self- and peer-evaluation, in a range of contexts.

Assessment

Assignment
8 hours (not all in one go!) - 50 marks

Question Paper
2 hours - 110 marks

Achievement of this course gives automatic certification of the core skill - Information and Communication Technology at SCQF level 5

Related Careers

Popular careers relating to Computing include:

- IT consultant
- Cyber security consultant
- Information systems manager
- Database administrator
- Systems analyst
- Games developer
- Technical writer

Grace Hopper, Mark Zuckerberg, Margaret Hamilton, Jimmy Fallon and Liam Neeson all studies Computing, whether they stuck with it or not!