SOFTWARE DEVELOPMENT WITH CYBER SECURITY
BSc (Hons)

ARE YOU STIRLING?
WHY STUDY SOFTWARE DEVELOPMENT WITH CYBER SECURITY?

The BSc (Hons) in Software Development with Cyber Security is a highly practical degree developed in partnership with the Scottish ICT industry who are looking for about 12,800 new staff to join the workforce every year. Jobs in the sector offer both a wide variety of career opportunities and above average compensation. In 2016, the average annual salary for digital technology jobs was £37,500, 30% higher than the Scottish average of £28,000. (ScotlandIS Survey 2019)

COURSE DETAILS

Students will spend the first two years of this four-year course at the college following an enhanced Software Development HND curriculum.

During this time students will develop a range of specialist technical software development skills and knowledge in programming and systems development. Students will gain academic, technical and professional training leading to the skills necessary to design, implement, support, evaluate or manage IT systems in a vast range of industries.

In Years 3 and 4 two key components of the course are the industrial placement and the Honours project.

Students will undertake a compulsory three-month industrial work placement in the summer following the third academic year. This work placement will appear on the academic transcript.

Honours students undertake an independent project in their final year. Typically, this involves developing a major piece of software from initial requirements to final delivery.

Much of the focus of the four year degree course is on software development with particular emphasis on the development of analytical skills.

During Year 2 at the college students will take a University module to support the transition across different learning environments.

AN INTEGRATED APPROACH:

Throughout the four years there will be an integrated approach to teaching. Academics from the College and the University will work together, alongside employers, to deliver the most up-to-date and industry relevant curriculum.

All undergraduates of this course will have dual student status and be fully enrolled within both institutions. Students will have full access to all of the University of Stirling and Forth Valley College online and onsite facilities from first year onwards.
**WHY CHOOSE STIRLING?**

A shared learning approach between a Further and Higher Education College and University is one of the key attributes of this degree.

Delivery of enhanced technical skills will make graduates work-ready – a major strength of the Software Development with Cyber Security degree course.

An industrial placement, together with an independent research dissertation, makes our graduates uniquely experienced in fundamental research with industrial awareness.

Research-led teaching is the key to deep learning and understanding.

Many students work closely with academics throughout their time and benefit from actively participating in research programmes.

This approach, together with industrial placements, enables students to apply the skills that they develop to 21st Century ICT careers. Forth Valley College’s STEM provision is amongst the strongest and most comprehensive to be found at any college across the UK. The College has a strong strategic commitment to STEM and close links with industry in order to deliver the skills required by employers through innovative provision.

There is an emphasis on practical skills and simulated learning in industry standard facilities to ensure learners are ‘work ready’ upon progressing to employment.

“The knowledge and skills taught in educational programmes must reflect those currently in use in the industry to ensure employability for students. Consequently, the input of businesses is necessary to ensure that they contain relevant material to the industry.”

Ross Tuffee
MD and Co-Founder, DOGFI.SH Mobile Ltd

**SOFTWARE DEVELOPMENT WITH CYBER SECURITY**

stir.ac.uk/nd T5G6

**MINIMUM REQUIREMENTS**

**FOUR-YEAR HONOURS**

**SQA Highers:**
BBB

**GCE A-levels:**
BB

**IB Diploma:**
28

**Essential subjects:**
To include one of Chemistry, Computing, Mathematics or Physics.
Access courses and other UK/EU and international qualifications are also welcomed.

**ADDITIONAL INFORMATION**

General entry requirements apply. Please visit: stir.ac.uk/av
Please note that selection will be made via successful interview.

**PART TIME, AND STUDY ABROAD OPTIONS AVAILABLE**

**CAREER OPPORTUNITIES**

A major skills gap exists in Scotland’s Computing Sector and about 12,800 job opportunities will be available each year. This trend is confirmed by the latest ScotlandIS survey (2019) stating that ‘Demand for the recruitment of university graduates remains strong with 70% of all businesses reporting they are definitely or quite likely to recruit graduates in 2019.’ This course gives you the necessary qualification and practical experience to excel in this field.
## Typical Timetable

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<thead>
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<th>YEAR 1</th>
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<tbody>
<tr>
<td></td>
<td>Computer Systems Fundamentals</td>
<td>Software Development - OOP Systems Development - Object Oriented Analysis &amp; Design</td>
<td>Select 3 out of the following 4 modules:</td>
<td>Honours project (compulsory)</td>
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<td></td>
<td>Troubleshooting Computing Problems</td>
<td>Software Development: Developing Websites for Multiplatform Use</td>
<td>Code Analysis &amp; Performance</td>
<td>Technologies for e-Commerce</td>
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<td>Professionalism and Ethics in Computing</td>
<td>Graded Unit 2</td>
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<td>Artificial Intelligence</td>
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<td>Mathematics: Calculus and Matrices for Computing</td>
<td>Software Development - Data Structures</td>
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<td>Mobile App Development</td>
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<td>Software Development: Programming Foundations</td>
<td>Relational Database Management Systems</td>
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<td>Web Services</td>
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<td>Computing: Introduction to Project Management</td>
<td>Mathematics for Interactive Computing: Essential Techniques</td>
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<td>NoSQL Databases</td>
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<td>Systems Development: Introduction</td>
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<td>Modelling for Complex Systems</td>
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<td>Team Working in Computing</td>
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<td>HNC Computing: Graded Unit 1 (Exam)</td>
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<td>SQL: Introduction</td>
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<td>Software Development: Developing Small Scale Standalone Applications</td>
<td>Software Development - OOP Systems Development - Object Oriented Analysis &amp; Design</td>
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<td>Computer Forensics</td>
<td>Developing Mobile Web Based Applications: an Introduction</td>
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<td>Introduction</td>
<td>Software Development: Developing Websites for Multiplatform Use</td>
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<td>Multi User Operating Systems</td>
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<td>Relational Database Management Systems</td>
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### Contact

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