



COMPUTING SCIENCE

BSc (Hons)



SOFTWARE ENGINEERING

BSc (Hons)

BUSINESS COMPUTING

BSc (Hons)

ARE YOU STIRLING?



REASONS TO CHOOSE THIS COURSE

1 PROBLEM ORIENTED APPROACH

Our programmes are designed according to a practical, problem solving approach. Students are taught how to design effective solutions to complex problems.

2 INDUSTRIAL EXPERIENCE

We provide opportunities for our students to develop strong professional skills through industrial placements with local SMEs and large multi-nationals.

3 ADVANCED TECHNOLOGIES

Our programmes are grounded on the latest developments in technology, from cyber-security to data analytics, drawing on the expertise of internationally active staff.

WHY STUDY COMPUTING SCIENCE?

Computers are everywhere. Not just the obvious home and office computers, but in every aspect of modern life: smart phones, smart microwaves, games consoles, automatic cash dispensers and air traffic control systems. Our course teaches you the theory and practice of designing, building and analysing such systems, with your training encompassing how computers work and learning how they fit into their environment.

The Guardian University Guide 2017 ranked Computing Science at Stirling in the Top 5 in Scotland for Computer Science.

COURSE DETAILS

Computing Science courses at Stirling equip you with knowledge of the wide use of computers in business, industry and for personal use. Built around a core of software engineering and development you will learn about Artificial Intelligence, Computer Games and Mobile Phone App development.

From day one you will study the broad concerns of computing science: not only how to program computers but 'computational thinking', the usability and accessibility of user interfaces, and social and professional issues.

In your Honours year you will have the chance to pick a number of optional topics, which are regularly updated to be at the cutting edge of computing. These options are often related to research being done at Stirling. Current topics include Computer Security and Forensics, Web Services, Computing and the Brain, Modelling for Complex Systems.

You will learn about Computing Science through lectures, small tutorial groups and "hands-on" experiments through laboratory work. Computing Science is taught as a very practical subject and almost all modules include practical assignments as part of their assessment.

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. Recent projects included:

- Autonomous Aerial Exploration using a Drone
- Using Machine Learning for Image Classification
- Producing Reactive Music
- Procedurally Generating 3D Worlds
- Developing a Preventative Diabetes Type 2 Predictor

CAREER OPPORTUNITIES

The University of Stirling is 3rd in the UK and 1st in Scotland for graduate employability, with almost 96% of our graduates in employment or further study within six months of graduating (HESA 2016).

Recent employment destinations for our graduates include Adobe Systems Inc, Agilent (Hewlett Packard Ltd), British Telecom, Google, HSBC, KANA, Logica, Microsoft, Scottish Power, Silicon Graphics Inc, Yammer (owned by Microsoft).

“I’m really enjoying my time at Stirling. The staff are friendly and make computing exciting and interesting. They are always willing to help.

If you are frustrated about work they will put you at ease and work through it with you.”

Rebecca Oakes,
Computing Science Graduate

“My time at the University of Stirling has definitely prepared me for a career in IT. If you aren’t an excellent problem solver then you will be by the time you leave!

Much of the knowledge I gained from modules studied at Stirling is now being put to use daily to provide bespoke software solutions for clients. I’d say the best part of studying at Stirling is the availability of lecturers. When I struggled to understand areas of the course there was always an open door and someone inside willing to help.”

Marc Mcauley,
BSc Computing Science, now a Software Engineer with KANA

COMPUTING SCIENCE G400
stir.ac.uk/3y

SOFTWARE ENGINEERING G600
stir.ac.uk/51

BUSINESS COMPUTING G510
stir.ac.uk/3v

MINIMUM REQUIREMENTS

YEAR 1 ENTRY – FOUR-YEAR HONOURS

SQA Highers:

ABBB – one sitting

AABB – two sittings

GCE A-levels:

BBB

IB Diploma:

32

BTEC (Level 3):

DDM

YEAR 2 ENTRY – THREE-YEAR HONOURS

SQA Adv Highers:

ABB

GCE A-levels:

ABB

IB Diploma:

35

Essential subjects:

To include Computing and Business Studies/Management (for Business Computing) and relevant experience of Java or other programming languages.

OTHER QUALIFICATIONS

Scottish HNC/HND:

Minimum entry: Bs in graded units.

Advanced entry:

Please visit:

<http://stir.ac.uk/ay>

Access courses and other UK/EU and international qualifications are also welcomed.

ADDITIONAL INFORMATION

General entry requirements

apply. Please visit:

<http://stir.ac.uk/av>

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

TYPICAL TIMETABLE

YEAR	SEMESTER	MODULE 1	MODULE 2	MODULE 3
1	1	Introduction to Computing Science	Discrete Structures	Any Module
	2	Programming & User Interface Design	Any Module	Any Module
2	3	Data Structures, Objects & Algorithms	Prof. Development for Computer Scientists	Any Module
	4	Systems	Managing Information	Programming Language Paradigms*
3	5	Software Engineering I	Database Principles and Applications	Multimedia & HCI
	6	Software Engineering II	Communications & Networking	Computer Games Development
4	7	Honours Project	Autumn Electives	Autumn Electives
	8	Honours Project	Honours Project	Spring Electives

AUTUMN ELECTIVES:

Operating Systems Concurrency and Distribution, Technologies for e-commerce, Artificial Intelligence, NoSQL Databases, Computer Security & Forensics

SPRING ELECTIVES:

Telecommunications Systems and Services, Modelling for Complex Systems, Web Services

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ARE YOU STIRLING?