



UNIVERSITY OF
GLOUCESTERSHIRE

at Cheltenham and Gloucester

BSc (HONS) COMPUTING



Our computing degree prepares you for work in the software industry and uses the latest techniques for programming and design.

This computing degree prepares you to work in the software industry in a technical role such as a software designer or developer. Our course teaches you the latest object-oriented techniques for programming and design. Software development forms the core of the programme. However, knowledge of technologies such as databases, multimedia and networks, and the development skills, such as working in groups, project management and professional conduct, are also important.

We are in close contact with industry and software practitioners who regularly attend our course meetings and give us their perspective on course content. We have close links with the British Computer Society and have a lively and stimulating joint seminar series with talks from practitioners and leading academics.

In the final year of your degree, you will work in groups to produce a major piece of software, using all the skills developed during your course. Recent projects include web applications, distributed computing systems, and games, some of which were created for external clients.

International Development Centre

BSc (Hons) Computing

Level I	Programming and Software Development	Systems Analysis and Database Design	Networking and Computing Fundamentals	Introduction to Web Development	Option
Level II	Object-Oriented Software Development	Professional Issues Research Methods & HCI	Database Application Development	Network Implementation and Programming	Option
Optional Placement					
Level III	Advanced Group Project	Language Comparison Software Quality Assurance	Internet Systems Integrity Network Design	Computing Dissertation	Option

Please Note: This course map is for a single honours degree.

ILLUSTRATIVE MODULES

Programming and Software Development introduces the basics of computer programming. It develops your programming techniques, including the design of software units and their effective testing. No prior programming experience is assumed.

Systems Analysis and Database Design introduces systems analysis and database design. You will learn how to identify business requirements and turn these rapidly into database systems.

Object-Oriented Software Development gives you an understanding of the object-oriented programming paradigm in the context of developing software that is well specified, designed and tested. You will be exposed to a variety of notations at different stages of the development process.

Professional Issues introduces you to the professional and ethical issues of the computing disciplines and professions and considers these within a theoretical framework of professional codes of practice and conduct.

Language Comparison studies the conceptual framework underlying contemporary programming languages and explores some different programming paradigms. The module considers the principal programming language concepts through a number of contemporary procedural and non-procedural programming languages. Support for program design and safety critical issues will be emphasised throughout.

Software Quality Assurance considers a number of issues that need to be addressed by anyone involved in the management of software development. It looks at the quality problems faced by software managers and critically examines current solution strategies.

Option Modules allow you to choose from a selection of modules – a full list of modules can be seen at www.glos.ac.uk/courses/undergraduate/co and then selecting 'Detailed Course Information.'

STAFF PROFILE

David Wakeling BSc, DPhil.
Course Leader

Over the last decade, David has taught courses in bioinformatics, compiler construction, computer organisation, programming, parallel programming, social and professional issues, and web programming. He currently teaches computer networking, web programming, and computer security.

Much of David's research seeks to transfer functional programming technology from academic research to industrial application. He has worked in a variety of areas including bioinformatics, embedded systems, parallel programming, and software development. Most recently, David's research has looked into robotics and ubiquitous computing (computing in which information processing is integrated into everyday objects and activities) and he supervises a research student in each of these areas.

Apart from work, David is a huge sports fan. He'll watch almost anything, and loves swimming and badminton. He also enjoys art house cinema, and is learning Italian.

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DEGREE+

Degree+ gives you the opportunity to work for a year on a paid placement that counts as part of your studies. It increases your employability prospects and chances of receiving a higher starting salary.

Benefits of the Course

- Encourages methodical, creative thinking
- Develops a wide range of software development skills
- Useful throughout the computing industry

Entry Requirements

- Applicants should have completed High School with good grades. Some students may have to complete an international foundation course before progressing to the bachelors degree
- IELTS 6.0 overall (5.5 in writing) or equivalent

Mode of Study

Full-time

Duration

3 years full-time /
4 years degree+

International Fees for 2010/11

Annual Tuition Fee £8,615

Career Paths

- Computer software developer
- Internet programmer
- Software engineer

Enquiries and Applications

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