

Programme Description Document

Programme Title	Computer Science (UoSD) (2025-26)
Programme Code	9500
Award Title	Bachelor of Science with Honours (BSc (Hons))
Awarding Body	University of Southampton
Teaching Institution	University of Southampton
Regulated by	Office for Students
Accreditation	None
Regulations	The Regulations of the University can be found on the University's Governance Webpages: https://www.southampton.ac.uk/about/governance/regulations-policies
Location of study	Delhi Campus
Length of the programme	
Tuition Fees	Fees for students can be located on the programme information pages. https://www.southampton.ac.uk/in/courses

Programme Overview

Computer Science drives the fundamental technologies of today's connected world. Every area of our lives, from medicine and healthcare to industrial applications, global trade, transport, communications, entertainment and security, is dependent on computing technology. As a result, computer science is now one of the fastest growing job fields in the world and skilled computer scientists are very much in demand.

The Computer Science programme at the University of Southampton is a world-leading research-led undergraduate programme that aims to give students a robust, in-depth grounding in the discipline, while offering a broad range of optional modules that derive from the research carried out by staff. The programme is designed to give you experience of core technologies and techniques, while making it possible for you to work in depth and specialise in what really interests.

Our project work will enable you to acquire valuable skills in teamwork, project planning, time management and presentation, applying your learning to design and build problems, and working to a brief. This experience will stand you in good stead as you move into your career. Our outstanding lab facilities and research-led teaching ensure that, at the end of your programme, your skills will be highly regarded by leading employers.

Aims of the Programme

The aims of this programme are to:

- · Provide you with a solid foundation and to develop the skills needed for a wide range of professional engineering careers as a high quality practitioner and leader in business, technology, research and development
- · Provide a balance of theoretical, design and practical subjects which allows you to exploit your individual talents
- · Provide a coherent selection of specialist subjects which allows you to focus your studies in a themed area within computer science and software engineering
- \cdot Have a flexible structure which is relevant and attractive not only to you, but also to staff, and industry and which is responsive to advances in technology and the needs of the community
- · Be at the leading edge of scholarship in computer science and software engineering
- · Maximise the benefit of an environment in which staff are carrying out internationally respected research
- · Provide an environment which contributes towards your personal and professional development and acts as a foundation for a wide range of subsequent study and lifelong learning
- · Provide a learning environment with sufficient laboratories, appropriate up-to-date software and hardware, and a first class web-site, motivating you towards the practice of engineering
- · Provide a supportive pastoral environment with opportunities for you to participate in social and recreational activities.

Programme Structure

The tables below provide a list of the modules that make up your programme.

Each module is worth a specified number of credits: you can take a combination of core and compulsory modules enabling you to cover key subject knowledge. Some programmes have option modules which enable you to develop your own interests.

Each level of your programme requires a certain number of credits. The number of option modules you can take depends on the number of core modules at a given level and this is also influenced by the requirements of the regulatory requirements for professionally accredited programmes. Some programmes also have pre and co-requisites, and these are included in individual module information.

Your learning will be led by the latest research, and modules can change periodically to reflect developments in the discipline.

If we have insufficient numbers of students interested in an option module, it may not be offered. If an option module will not be run, we will advise you as soon as possible and help you choose an alternative module.

The core and compulsory modules available on your programme are as follows:

Part I

The first year of the Computer Science programme introduces students to the fundamental mathematics and theory that underpin the discipline, and gives them hands-on experience of programming, computer hardware, computer networks and operating systems.

In Part I, students take 120 credits (60 ECTS) at FHEQ Level 4, 60 credits (30 ECTS) in each semester as shown below.

Part I Core

All Part I modules are core, and must be passed without compensation in order to progress.

Code	Module Title	ECTS	Туре
COMP1322	Programming II	7.5	Core
COMP1312	Programming I	7.5	Core
COMP1323	Networks and Security	7.5	Core
COMP1321	Mathematics II	7.5	Core
COMP1311	Mathematics I	7.5	Core
COMP1314	Data Management	7.5	Core
COMP1313	Computer Systems I	7.5	Core
COMP1300	COMP Part I Laboratory Programme	0	Core
COMP1324	Algorithmics	7.5	Core

Part II

The second year of the Computer Science programme consolidates the material from the first year with an integrated software development module that runs throughout the year, and broadens out the curriculum to include functional programming, artificial intelligence, and formal specification and verification.

In Part II, students take 120 credits (60 ECTS) at FHEQ Level 5, 60 credits (30 ECTS) in each semester.

Part II Compulsory

All Part II modules are compulsory for BSc students.

Code	Module Title	ECTS	Туре
COMP2300	Software Design and Development Project	15	Compulsory
COMP2322	Programming Language Concepts	7.5	Compulsory
COMP2312	Programming III	7.5	Compulsory
COMP2311	Theory of Computing	7.5	Compulsory
COMP2313	Formal Specification and Verification	7.5	Compulsory
COMP2323	Computer Systems II	7.5	Compulsory
COMP2321	Artificial Intelligence	7.5	Compulsory

Part III

The major component of the third year is the Individual Project (ECSP3000/ECSP3001), which runs across both semesters.

In Part III, students also take 75 credits (37.5 ECTS) of optional modules from the list below, for a total load of 60 credits (30 ECTS) per semester.

Part III Core

In Part III, all students must take ECSP3000/ECSP3001 Individual Project. Note that the Individual Project is core and must be passed without compensation.

Code	Module Title	ECTS	Type
ECSP3000	Part III Individual Project Phase 1	7.5	Core
ECSP3001	Part III Individual Project Phase 2	15	Core

Part III Optional

Code	Module Title	ECTS	Туре
COMP3222	Machine Learning Technologies	7.5	Optional
COMP3211	Advanced Databases	7.5	Optional
COMP3207	Cloud Application Development	7.5	Optional
COMP3204	Computer Vision	7.5	Optional
COMP3218	Game Design and Development	7.5	Optional
COMP3225	Natural Language Processing	7.5	Optional
COMP3217	Security of Cyber Physical Systems	7.5	Optional
COMP3208	Social Computing Techniques	7.5	Optional
COMP3226	Web and Cloud Based Security	7.5	Optional

Learning and Teaching

Your overall workload consists of class contact hours, independent learning, and assessment activity, with each ECTS credit taken equivalent to 20 hours of student effort.

When not attending lectures, seminars and other timetabled sessions you will be expected to continue learning independently through self-study. Typically, this will involve reading journal articles and books, working on individual and group projects, undertaking research in the library, preparing coursework assignments and presentations, and for other types of assessments and examinations.

How we'll assess you

Summative assessment(s) usually take place at the end of each module, although some may have interim assessments throughout. Assessment methods might include written examinations and a range of coursework assessments such as essays, reports, portfolios, performance, presentations and projects for example. The marks from summative assessments count towards your module mark.

Each module normally contains at least one piece of practice or formative assessment for which you receive feedback. Formative assessments are developmental and any results do not count towards your module mark, but they are an important part of your learning.

Staff involved in delivering the different elements of the programme

You will be taught by an experienced teaching team whose expertise and knowledge are closely matched to the content of the modules on your programme. The team includes senior academics, professional practitioners, specialists with industry experience, demonstrators and technical officers.

Postgraduate research students who have undertaken appropriate training may also contribute to the teaching of seminars if their research specialism is directly related to the topic of the module and may also be involved in practical classes, project work and field trips. All contributions will be carried out under the supervision of the module leader.

Fees

What your fees pay for

Your tuition fees pay for the full cost of tuition and standard exams.

Extra costs you may experience

Accommodation and living costs, such as travel and food, are not included in your tuition fees. There may also be extra costs for retake and professional exams.

Depending on the nature of your programme, you may be able to choose modules which may have additional costs, such as field studies, travel overseas or industrial placements which will change the overall cost of your programme. Details of these costs can be found in module information.

The following programme-related costs are not included in your fees:

Туре	Details
Calculators	Where a calculator is required, all Casio Calculators are allowed but they must
	be Non-Programmable, Scientific models. More information is available in the
	Examination Regulations
	https://www.southampton.ac.uk/studentadmin/assessment/assess-
	overview/exam-regulations.page
Stationery	You will be expected to provide your own day-to-day stationery items, e.g.
	pens, pencils, notebooks, etc. Any specialist stationery items that you may
	need will be specified in the relevant module profile.
Textbooks	Where a module specifies essential texts, the Library will identify the optimal
	option(s) to support the module via the programme Reading List. This may
	include e-books (ideally with unlimited concurrent usage) or a digitised
	chapter extract, supported by a limited number of print books (where
	available). You may prefer to buy your own copies for high demand titles.
Printing	In most cases, written coursework such as essays and projects are submitted
	online. However it may be necessary to submit a hard copy of some projects,
	business projects and dissertations. The costs of printing a hard copy for
	submission of such work will be your responsibility. You will also have to
	cover the cost of photocopying.

Bursaries, scholarships and other funding

We award scholarships and grants for academic excellence, or to students from underrepresented backgrounds.

Academic support

The Student Hub is your first point of contact when it comes to seeking support. The team will answer your questions or concerns about your wellbeing, fees and funding, accommodation and visas. The team will help make sure you receive the support you need, guiding you to further support services where required.

One of the most important people you will meet while you are a student at University of Southampton Delhi is your Personal Academic Tutor, who will be allocated to you for your arrival at the University and who is normally a member of academic staff in your own or a closely related subject area. Your Personal Academic Tutor will offer one-to-one support and advice throughout your time at the University and will support you in your studies or with other issues you may have. You can find out more via our webpages:

 $\underline{https://www.southampton.ac.uk/studentadmin/academic-support-guidance/personal-tutor.page}$

Disclaimer

As a research-led University, we undertake a continuous review of our programmes to ensure quality enhancement and to manage our resources. As a result, this programme may be revised during a student's period of registration; however, any revision will be balanced against the requirement that the student should receive the educational service expected. Please read our <u>Disclaimer</u> to see why, when and how changes may be made to a student's programme.