# Programme Description Document

## Draft Subject to Approval

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|---|---|
| Programme Title | Software Engineering (2025-26) |
| Award Title | Bachelor of Engineering with Honours (BEng (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 | University of Southampton Delhi |
| Length of the programme | 3 Years |
| Tuition Fees | Fees for students can be located on the programme information pages. https://www.southampton.ac.uk/in/courses |

# Programme Overview

Software Engineering 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, software engineering is now one of the fastest growing job fields in the world and skilled software engineers are very much in demand.

The Software Engineering 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 computing modules that derive from the research carried out by staff in ECS. 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 you.

## 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
· 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 Software Engineering 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 | Type |
|---|---|---|---|
| COMP1324 | Algorithmics 2025-26 | 7.5 | Core |
| COMP1300 | COMP Part I Laboratory Programme 2025-26 | 0 | Core |
| COMP1313 | Computer Systems I 2025-26 | 7.5 | Core |
| COMP1314 | Data Management 2025-26 | 7.5 | Core |
| COMP1311 | Mathematics I 2025-26 | 7.5 | Core |
| COMP1321 | Mathematics II 2025-26 | 7.5 | Core |
| COMP1323 | Networks and Security 2025-26 | 7.5 | Core |
| COMP1312 | Programming I 2025-26 | 7.5 | Core |
| COMP1322 | Programming II 2025-26 | 7.5 | Core |

**Part II**

The second year of the Software Engineering 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 BEng students.

| Code | Module Title | ECTS | Type |
|---|---|---|---|
| COMP2321 | Artificial Intelligence 2026-27 | 7.5 | Compulsory |
| COMP2323 | Computer Systems II 2026-27 | 7.5 | Compulsory |
| COMP2313 | Formal Specification and Verification 2026-27 | 7.5 | Compulsory |
| COMP2312 | Programming III 2026-27 | 7.5 | Compulsory |
| COMP2322 | Programming Language Concepts 2026-27 | 7.5 | Compulsory |
| COMP2300 | Software Design and Development Project 2026-27 | 15 | Compulsory |
| COMP2311 | Theory of Computing 2026-27 | 7.5 | Compulsory |

**Part III (Year 3)**

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, for a total load of 60 credits (30 ECTS) per semester. You will be offered a range of options based on the research expertise of our world-leading staff.

**Part III (Year 3) 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 2027-28 | 7.5 | Core |
| ECSP3001 | Part III Individual Project Phase 2 2027-28 | 15 | Core |

## 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:

| Type | 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:

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 Disclaimer to see why, when and how changes may be made to a student's programme.