

## Template C4



# Programme Specification

**Title of Course:** *BSc (Hons) Computer Science (Software Engineering)*

Date first produced	19/08/2025
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Version number	2
Faculty	Faculty of Engineering, Computing and the Environment
Cross-disciplinary	
School	School of Computer Science and Mathematics
Department	Department of Computer Science
Delivery Institution	ESOFT Metro Campus, Sri Lanka

This Programme Specification is designed for prospective students, current students, academic staff and employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes and content of each modules can be found in the course VLE site and in individual Module Descriptors.

## SECTION 1: GENERAL INFORMATION

Award(s) and Title(s):	BSc (Hons) Computer Science (Software Engineering)
Exit Award(s) and Title(s):	CertHe Computer Science (Software Engineering) DipHE Computer Science (Software Engineering) BSc Computer Science (Software Engineering)
Course Code <i>For each pathway and mode of delivery</i>	UFCSC1CSC21
UCAS code <i>For each pathway</i>	N/A

Awarding Institution:	Kingston University
Teaching Institution:	ESOFT Metro Campus, Sri Lanka
Location:	ESU Colombo and ESU Kandy
Language of Delivery:	English
Delivery mode:	Primarily campus based (up to 20% of scheduled L&T hours delivered online)
Learning mode(s):	Full-time
Minimum period of registration:	Full-time - 3 years
Maximum period of registration:	Full-time - 6 years
Entry requirements	<p>The minimum entry qualifications for the programme are:</p> <ol style="list-style-type: none"> <li>Three Passes in one sitting at one of the following examinations or equivalent foreign qualifications <ol style="list-style-type: none"> <li>G.C.E. (A/L) – conducted by the Department of Examinations, Sri Lanka</li> <li>G.C.E. (A/L) – conducted by Pearson Edexcel, UK (London A/L)</li> <li>International (A/L) IGCSE's – conducted by Pearson Edexcel, UK</li> <li>G.C. E. (A/L) – conducted by Cambridge International Examinations, UK</li> </ol> </li> </ol> <p>OR</p> <ol style="list-style-type: none"> <li>ESOFT International Foundation Diploma.</li> </ol>

	<p>A minimum overall IELTS score of 6.0 with a minimum of 5.5 each element, iBT TOEFL 80 with R at 20, L at 19, S at 21 and W at 20 or equivalent is required for those for whom English is not their first language. A minimum of a Credit pass at the Sri Lankan G.C.E O/L English Language exam will also be considered as equivalent to this level. We will consider a range of alternative qualifications or experience that is equivalent to the typical offer. Applications from international students with equivalent qualifications are welcome.</p>
Regulated by	The University and its courses are regulated by the Office for Students
Programme Accredited by:	Non-accredited programme
Approved Variants:	
Is this Higher or Degree Apprenticeship course?	No

## SECTION 2: THE COURSE

### A. Aims of the Course

The BSc (Hons) in Computer Science (Software Engineering) offered at ESOF Metro is designed to produce industry-ready graduates with strong technical and problem-solving skills. This program is closely aligned with the undergraduate portfolio of Kingston University's School of Computer Science and Mathematics (CSM), which has a long-standing reputation for excellence. The Computer Science degree at Kingston University was first accredited by the British Computer Society (BCS) in 1996, highlighting its academic rigor and professional relevance.

The curriculum at ESOF Metro reflects the latest developments in both academic research and industry practice, drawing from the CSM's active research environment. Students are introduced to modern tools, techniques, and methodologies that are widely regarded as best practices in the field. The program emphasizes the development of high-quality, cost-effective software systems, with a particular focus on web and mobile applications.

The overarching aim of the course is to produce highly skilled graduates with a specialist technical knowledge base and a scientific mindset, who are capable of addressing real-world challenges. These graduates will be driven by passion, committed to sustainability, and conscious of the broader socio-technical implications of their work.

Specifically the aims are to produce graduates who:

- have the required knowledge, skills and attitudes to practice as computing professionals in both industry and commerce
- are equipped to meet the academic, professional and practical requirements for membership of appropriate professional bodies such as the British Computer Society
- are aware of the actual and potential range of information and computer-based systems and of the ways in which these interact with their material, human, organizational and social environments
- possess the appropriate ability and inclination, and are equipped, to undertake advanced studies and/or research and development in the computing and information systems disciplines
- can apply their knowledge and skills in the various contexts in which information and computer-based systems are developed. In particular, can both initiate and sustain a planned and disciplined personal effort when working alone and can participate effectively as a member of a team
- have an inquisitive and reflective attitude when modelling systems and understands the functional and qualitative properties of systems.
- have the ability to evaluate and predict security, performance and efficiency associated system properties and their context dependencies.
- understand and can articulate the legal, ethical, social, cultural and public aspects of problems and solutions.
- have the capacity to acquire new knowledge and skills independently; reflect on trends in the computing domain and their actions are demonstrative of a creative contribution.

## **B. Programme Learning Outcomes**

The programme learning outcomes are the high-level learning outcomes that will have been achieved by all students receiving this award. They have been aligned to the levels set out in 'Sector Recognised Standards in England' (OFS 2022).

Programme Learning Outcomes					
	<b>Knowledge and Understanding</b>  On completion of the course students will be able to:		<b>Intellectual Skills</b>  On completion of the course students will be able to		<b>Subject Practical Skills</b>  On completion of the course students will be able to
A1	Demonstrate and apply essential concepts, theories, principles and practices of computer science	B1	analyse, abstract and decompose problems to design effective solutions	C1	develop and critically evaluate specifications for specialist computer systems and communicate these specifications to other computing professionals
A2	Analyse the social, ethical, legal, commercial and other human factors that affect the design, development, deployment of computer systems	B2	synthesise information from disparate and potentially incomplete sources to model and build systems, documents and other related artefacts	C2	use (and, where appropriate, modify) established systems, software development methods, techniques and tools to model and build computer based solutions
A3	Identify security issues and evaluate risk for the safe operation of computing and information systems	B3	analyse and evaluate the extent to which a system meets the criteria for its current use and future development	C3	collaborate and communicate effectively with other professionals/stakeholders to plan, design, manage, implement and deliver IT projects
A4	Describe and compare the different ways in which data and information may be represented, stored and transmitted	B4	elicit, evaluate and model business, customer and user requirements, incorporating considerations such as sociological and commercial contexts, user experience,	C4	implement software solutions using a variety of programming languages, environments and platforms

			aesthetics and technical practicalities		
A5	identify the different project management approaches commonly used in the IT industry and select, modify or construct one for a given context	B5	use different programming approaches, patterns and/or paradigms, and justify the selection of one or more for a given context	C5	specify, design and prototype human/computer interfaces using HCI and UX theory and best practices

### C. Future Skills Graduate Attributes

In addition to the programme learning outcomes, the programme of study defined in this programme specification will engage students in developing their Future Skills Graduate Attributes:

1. Creative Problem Solving
2. Digital Competency
3. Enterprise
4. Questioning Mindset
5. Adaptability
6. Empathy
7. Collaboration
8. Resilience
9. Self-Awareness

### D. Outline Programme Structure

Full details of each module will be provided in module descriptors and in the module canvas pages.

Note: As per GR5 within the general regulations, the University aims to ensure that all option modules listed below are delivered. However, for various reasons, such as demand, the availability of option modules may vary from year to year or between teaching blocks. Students will be informed of the availability of option modules through the Online Module Selection process.

### BSc (Hons) Computer Science (Software Engineering)

Level 4							
BSc (Hons) Computer Science (Software Engineering)							
Core modules	Module code	Credit Value	Level	Teaching Block	Pre-requisites	Full Time	Part Time
Computing Fundamentals	CI4250	30	4	Year Long		1	
Professional Environments 1	CI4450	30	4	Year Long		1	
Programming I – Thinking Like a Programmer	CI4105	30	4	Year Long	None	1	
Requirements Analysis and Design	CI4305	30	4	Year Long	None	1	

#### Exit Awards at Level 4

Students exiting the course at this point who have successfully completed 120 credits at level 4 or above are eligible for the award of Certificate of Higher Education.

<b>Level 5</b>							
<b>BSc (Hons) Computer Science (Software Engineering)</b>							
<b>Core modules</b>	<b>Module code</b>	<b>Credit Value</b>	<b>Level</b>	<b>Teaching Block</b>	<b>Pre-requisites</b>	<b>Full Time</b>	<b>Part Time</b>
Computing Systems	CI5250	30	5	Year Long		2	
Database-Driven Application Development	CI5320	30	5	Year Long	None	2	
Professional Environments 2	CI5450	30	5	Year Long		2	
Programming II - Software Development	CI5105	30	5	Year Long	None	2	

#### Exit Awards at Level 5

Students exiting the programme at this point who have successfully completed 120 credits at level 5 or above are eligible for the award of Diploma of Higher Education.

<b>Level 6</b>							
<b>BSc (Hons) Computer Science (Software Engineering)</b>							
<b>Core modules</b>	<b>Module code</b>	<b>Credit Value</b>	<b>Level</b>	<b>Teaching Block</b>	<b>Pre-requisites</b>	<b>Full Time</b>	<b>Part Time</b>
Individual Project	CI6600	30	6	Year Long		3	
Advanced Data Modelling	CI6416	15	6	TB1		3	
Future Skills Apply ESU	CI6003	15	6	TB2		3	
Programming III – Patterns and Algorithms	CI6115	30	6	Year Long	None	3	
<b>Optional Modules</b>							
Digital Entrepreneurship	CI6415	30	6	Year Long	None	3	

Internet Services and Protocols	CI6250	30	6	Year Long		3	
Mobile Application Development	CI6330	30	6	Year Long		3	

## Exit Awards at Level 6

Students exiting the programme without completing the full 120 credits but have successfully completed 60 credits at level 6 or above are eligible for the award of an Ordinary Degree.

## E. Teaching, Learning and Assessment

This course uses a range of teaching and assessment methods which have been designed to support students' learning and achievement of the learning outcomes. The course has been developed with reference to the Kingston University Academic Framework which sets-out core principles relating to Course and Credit Structure (including Module delivery Structure and Pattern, and Learning Hours and Learning Formats); Curriculum Design (inclusion Learning Design Principles and Inclusive Curriculum); and Future Skills.

Teaching and Learning on the course consist of Scheduled Learning and Teaching and Guided Independent Study (self-managed time). Scheduled Learning and Teaching includes the following, and the format for each module is set out in the module specification:

- Laboratory Sessions
- Lectures
- Seminars
- Tutorials
- Workshops
- Placements

Guidance for students on the use of independent study time is communicated through the 'Succeed in your module' section on the Canvas Virtual Learning Environment and through other communications during the course.

In addition to the core Scheduled Learning and Teaching activities for the course, the University may offer students additional optional opportunities for learning. Examples of these include Study abroad and Work-based learning.

The course will provide students with the opportunity to develop their knowledge and skills relating to at least two United Nations Sustainable Development Goals (UN SDGs). We are committed to empowering students with the knowledge, skills and opportunities to understand and address the UN SDGs: each course is thus also required to prepare students for at least two of the SDGs (not including Quality Education, which all courses must deliver).

## **F. Support for Students and their Learning**

Students are supported through a range of services that provide academic and wider support. These include:

- A Module Leader for each module
- A Course Leader to help students understand the course structure
- Personal Tutors to provide academic and personal support
- Technical support to advise students on IT and the use of software
- A designated Programme Administrator
- Student Voice Committee – to ensure the views of students are heard
- EMLS– EMC's Virtual Learning Environment
- Student support facilities that can provide advice on issues such as finance, regulations, legal matters, accommodation, international student support
- Disabled student support
- ESOF Student Council (ESC)
- Careers and Employability Service

The students are introduced to all these mechanisms during induction sessions at the beginning of each new academic year. It is here that the level 4 students first encounter the Campus' computer network, which includes their personal access to the ELMS and how to use it as a learning environment.

Students are expected to be involved in the development of their programme. On an individual level through meetings with their personal tutors at which they can discuss their academic progress, personal development and can seek advice on course and module choices in the light of their career aspirations. As a cohort, students can contribute to many aspects of programme evolution for example by student representation on meetings including SVC as well as by their formal and informal feedback such as end-of-module reviews.

Learning computer science is often most readily undertaken in the context of the search for solutions to real-life problems. This is reflected in the approach adopted throughout this programme which is problem-centred wherever appropriate. The strategy is to start with a relevant problem then to move forward from there to explore the theory and techniques necessary to investigate that problem. The 'top down' approach provides more motivation for students to engage with material/concepts and opportunities for relatable (concrete), inclusive example problems to be used. Students frequently work in groups to tackle these problems both in timetabled sessions and outside, thereby creating a learning community in which the students collaborate with each other and staff. As the students work together in groups, both formatively and summatively, this community supports them automatically allowing for different learning styles and varied backgrounds.

Students are encouraged to develop as independent learners as they progress through their degree course. This is supported explicitly through, for example, the strand of professional skills modules culminating in the individual project in the final year

## **G. Ensuring and Enhancing the Quality of the Course**

The University has policies and procedures for evaluating and improving the quality and standards of its provision. These include:

- Continuous Monitoring of courses through the Kingston Course Enhancement Programme (KCEP)
- Student evaluation including Module Evaluation Questionnaires (MEQs)
- Internal and external moderation of graded assignments

## H. External Reference Points

External reference points which have informed the design of the course. These include:

- QAA Benchmark statement  
website: <https://www.qaa.ac.uk/docs/qaa/sbs/sbs-computing-22.pdf>
- Professional or statutory body information: <http://www.bcs.org/>

## I. Development of Course Learning Outcomes in Modules

This table maps where programme learning outcomes are **summatively** assessed across the **core** modules for this course. It provides an aid to academic staff in understanding how individual modules contribute to the course aims, a means to help students monitor their own learning, personal and professional development as the course progresses and a checklist for quality assurance purposes.

Module Code		Level 4				Level 5				Level 6						
		C14105	C14305	C14450	C14250	C15105	C15320	C15450	C15250	C16330	C16415	C16115	C16250	C16600	C16416	C16003
Knowledge & Understanding	A1	S	S			S										
	A2	S	S													
	A3	S	S			S	S					S				
	A4	S				S	S					S				
	A5	S	S			S	S					S				
Intellectual Skills	B1	S	S				S									

	B 2	S	S			S	S					S				
	B 3	S				S						S				
	B 4	S	S			S						S				
	B 5	S				S	S									
<b>Practical Skills</b>	C 1	S	S			S	S					S				
	C 2	S				S	S					S				
	C 3	S				S	S					S				
	C 4	S					S					S				
	C 5	S					S					S				

**Students will be provided with formative assessment opportunities throughout the course to practise and develop their proficiency in the range of assessment methods utilised.**

#### **Additional Information**

None