

UNIVERSITY OF KENT

Programme Specification

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she passes the programme. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the programme handbook. The accuracy of the information contained in this specification is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

BSc (Hons) Computer Science
BSc (Hons) Computer Science with a Year in Industry
BSc (Hons) Computer Science (Artificial Intelligence)
BSc (Hons) Computer Science (Artificial Intelligence) with a Year in Industry
BSc (Hons) Computer Science (Networks)
BSc (Hons) Computer Science (Networks) with a Year in Industry
BSc (Hons) Computer Science (Cyber Security)
BSc (Hons) Computer Science (Cyber Security) with a Year in Industry

1. Awarding Institution/Body	University of Kent
2. Teaching Institution	University of Kent
3. School responsible for management of the programme	School of Computing
4. Teaching Site	Canterbury
5. Mode of Delivery	Full-time
6. KentVision Academic Model	
7. Programme accredited by	British Computer Society Full Chartered IT Professional (CITP) and CEng (partial)
8. a) Final Award	BSc (Hons)
7. b) Alternative Exit Awards	BSc (non hon) Computer Science; BSc (non hon) Computer Science with a Year in Industry; BSc (non hon) Computer Science (Artificial Intelligence); BSc (non hon) Computer Science (Artificial Intelligence) with a Year in Industry; BSc (non hon) Computer Science (Networks); BSc (non hon) Computer Science (Networks) with a Year in Industry; BSc (non hon) Computer Science (Cyber Security); BSc (non hon) Computer Science (Cyber Security) with a Year in Industry; Diploma in Computer Science;

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	Diploma in Computer Science with a Year in Industry; Certificate in Computer Science;
9. Programme	Computer Science, Computer Science (Artificial Intelligence), Computer Science (Networks), Computer Science (Cyber Security)
10. UCAS Code (or other code)	G400, G404, G4G7, G421, G420, G4GR, Gxxx
11. Credits/ECTS Value	360 (180 ECTS) for 3-year programmes; 480 (240 ECTS) for the 4-year programmes that include a year in industry.
12. Study Level	Undergraduate
13. Relevant QAA subject benchmarking group(s)	Computing 2019
14. Date of creation/revision	Oct 2019
15. Intended Start Date of Delivery of this Programme	September 2020

16. Educational Aims of the Programme
The programme aims to:
<ul style="list-style-type: none"> • Provide a programme that will attract and meet the needs of both those contemplating a career in computing and those motivated primarily by an intellectual interest in Computer Science. • Be compatible with widening participation in higher education by offering a wide variety of entry routes. • Provide a sound knowledge and systematic understanding of the principles of Computer Science. • Provide computing skills that will be of lasting value in a field that is constantly changing. • Offer a range of options to enable students to match their interests and study some selected areas of computing in more depth. • Provide teaching which is informed by current research and scholarship and which requires students to engage with aspects of work at the frontiers of knowledge. • Develop general critical, analytical and problem-solving skills that can be applied in a wide range of different computing and non-computing settings. <p>The Computer Science Programme additionally aims to:</p> <ul style="list-style-type: none"> • Enable students to meet the above aims more deeply by providing both a broad overview of the subject and enabling specialisation in selected areas. • Several themed pathways build on the core Computer Science modules to allow students to pursue particular interests. <p>The Computer Science (Networks) programmes additionally aim to:</p>

- Provide knowledge of key areas in Computer Communication Networks.

The Computer Science (AI) programmes additionally aim to:

- Provide knowledge of key areas in Artificial Intelligence

The Computer Science (Cyber Security) programme additionally aims to:

- Provide knowledge of key areas in Cyber Security.

The programmes that include a year in industry additionally aim to:

- Provide relevant work experience.
- Provide an opportunity to develop knowledge understanding and skills of relevance to Computer Science within an industrial or commercial organisation.
- Meet the requirements for accreditation by British Computer Society Full Chartered IT Professional (CITP) and CEng (partial) on successful completion of the programme

17 Programme Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas.

The programme outcomes have references to the subject benchmarking statement for Computing 2016.

A. Knowledge and Understanding of:

1. Hardware: the major functional components of a computer system CO-SB3.3(iii).
2. Software: Software: programming languages and practise; tools and packages; computer applications; structuring of data and information CO-SB3.3(iii).
3. Communication and interaction: basic computer communication network concepts; communication between computers and people; the control and operation of computers CO SB3.3(iii).
4. Practise: problem identification and analysis; design development, testing and evaluation. CO-SB3.3(iii).
5. Theory: algorithm design and analysis; formal methods and description; modelling
6. An understanding of the scientific method and its applications to problem solving in this area. CO SB3.3(ii).

Outcomes specific to:

Year in Industry programmes

7. Aspects of the core subject areas from the perspective of a commercial or industrial organisation.

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Outcomes specific to:

BSc Computer Science (AI)

BSc Computer Science (AI) and a Year in Industry

8. The philosophical and psychological principles of knowledge and cognition.
9. Machine intelligence: systems, algorithms and applications.

Outcomes specific to:

BSc Computer Science (Networks)

BSc Computer Science (Networks) and a Year in Industry

10. Have a comprehensive and systematic understanding of current network architectures, their individual protocol layers and the mechanisms used to ensure their security.

Outcomes specific to:

BSc Computer Science (Cyber Security)

BSc Computer science (Cyber Security) with a Year in Industry

11. Holistic cyber security: core concepts and technology to enforce security, risks and countermeasures (including human aspects), and security architecture.
12. Secure development: programming best practices, analysis of potential vulnerabilities and malicious code, and security-by-design principles.

Skills and Other Attributes

B. Intellectual Skills:

All Computer Science programmes:

1. Modelling: knowledge and understanding in the modelling and design of computer-based systems in a way that demonstrates comprehension of the trade-off involved in design choices. CO SB3.3(iv)
2. Reflection and communication: present succinctly to a range of audiences rational and reasoned arguments. CO SB3.5(iv)
3. Requirements: Identify and analyse criteria and specifications appropriate to specific problems and plan strategies for their solution CO SB3.3(v)
4. Criteria evaluation and testing: Analyse the extent to which a computer-based system meets the criteria defined for its current use and future development. CO SB3.3(vi)
5. Methods and tools: Deploy appropriate theory, practices, and tools for the specification, design, implementation, and evaluation of computer-based systems. CO SB3.3(vii)
6. Professional responsibility: Recognize and be guided by the professional, economic, social, environmental, moral and ethical issues involved in the sustainable exploitation of computer technology. CO SB3.3(viii)
7. Computational thinking: demonstrate a basic analytical ability and its relevance to everyday life. CO SB3.3(i)

Outcomes specific to:

Year in Industry programmes

8. Apply some of the intellectual skills specified for the programme from the perspective of a commercial or industrial organisation.

C. Subject-specific Skills:

All Computer Science programmes:

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1. Design and implementation: Specify, design, and implement reliable secure and usable computer-based systems. CO-SB3.4(i)
2. Evaluation: Evaluate systems in terms of general quality attributes and possible trade-offs presented within the given problem. CO SB3.4(ii)
3. Information management: Apply the principles of effective information management, information organisation, and information-retrieval skills to information of various kinds, including text, images, sound, and video.
4. Tools: Deploy effectively the tools used for the construction and documentation of software, with particular emphasis on understanding the whole process involved in using computers to solve practical problems. Operation: Operate computing equipment and software systems effectively. CO SB3.4(v)
5. The ability to plan and manage projects to deliver computing systems within the constraints of requirements, timescale and budget. CO-SB3.4(iii)
6. The ability to recognise any risks and safety aspects that may be involved in the deployment of computing systems within a given context. CO SB3.4(iv)
7. The ability to critically evaluate and analyse complex problems, argument and evidence, including those with incomplete information, and devise appropriate computing solutions, within the constraints of a budget. CO-SB3.4(vi)

Outcomes specific to:

Year in Industry programmes

8. Apply some of the subject-specific skills specified for the programme from the perspective of a commercial or industrial organisation.

Outcomes specific to:

BSc Computer Science (AI)

BSc Computer Science (AI) and a Year in Industry

9. Identify and develop solutions for computational problems requiring machine intelligence. (CO-SB3.2)

Outcomes specific to:

BSc Computer Science (Networks)

BSc Computer Science (Networks) and a Year in Industry

10. Be able to perform software implementations of selected algorithms in the area of computer network protocols and computer and network security.

Outcomes specific to:

BSc Computer Science (Cyber Security)

BSc Computer Science (Cyber Security) and a Year in Industry

11. Recognise security needs, select and apply solutions (including social-technical solutions) to enforce and maintain systems secure.

D. Transferable Skills:

1. Teamwork: Be able to work effectively as a member of a development team. CO SB3.5(v)
2. Interaction reflection and Communication: Communicate effectively to a range of audiences about technical problems and their solutions. CO SB3.5(iv)
3. Information Technology: Effective use of general IT facilities; information retrieval skills

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4. Intellectual skills: critical thinking; making a case; numeracy and literacy; information literacy. The ability to construct well-argued documents. The ability to locate and retrieve relevant ideas, and ensure these are correctly and accurately referenced and attributed. CO SB3.5(ii)
5. Self-management: Managing one's own learning and development, including time management and organisational skills CO SB3.5(iii)
6. Professional Development: Appreciating the need for continuing professional development in recognition of the need for lifelong learning CO SB3.5(i)
7. Contextual awareness: the ability to understand and meet the needs of individuals, business and the community, and to understand how workplaces and organisations are governed. CO-SB3.5(vi)
8. Sustainability: recognising factors in environmental and societal contexts relating to the opportunities and challenges created by computing systems across a range of human activities. CO-SB3.5(vii)

Teaching/learning and assessment methods and strategies used to enable the programme learning outcomes to be achieved and demonstrated

Teaching/Learning

Acquisition is through lectures, supported where appropriate by classes and/or laboratory work. Self-directed learning is facilitated by directed reading, study guides and web-based material.

Core aspects of computing are covered in the first year/stage when there is an emphasis on supporting students via supervised classes and laboratory sessions. These core components are built on in year/stage 2 with more emphasis on self-directed study via directed reading and research. In year/stage 3, the project provides an opportunity for independent and/or group work under supervision from academic staff.

Intellectual skills are developed through the teaching and learning programme outlined below. Students develop critical reflection by discussion of key themes introduced in the core modules. Project work contributes to the development of these skills by providing the opportunity to consider larger practical and theoretical problems.

Acquisition of computing specific skills is through lectures, classes and directed study. From the start of the course, students receive guidance and gain practical experience via supervised practical classes and directed study. As the programme progresses, these skills are further encouraged by the introduction of larger scale problems and project work.

General IT facilities are used throughout the course for the preparation of written work. Browsers, search engines and catalogues are used for research and self-study material. All students work within teams during the course and provide presentations of their work to both their peers and academic staff.

Assessment

Assessment is through a combination of unseen written examinations, assessed coursework and both individual and group project work. Coursework consists of reports and practical assignments.

For more information on the skills developed by individual modules and on the specific learning outcomes associated with any Certificate, Diploma or BA/BSc non-honours awards relating to this programme of study, see the module mapping table, located at the end of this specification.

18 Programme Structures and Requirements, Levels, Modules, Credits and Awards

The Computer Science programmes are normally studied over three years full-time with an additional industrial placement year for the “Year in Industry” variant. Direct entry to Stage 2 is available to students with appropriate prior learning to all programmes except the Cyber Security pathway.

The programme is divided into three stages, each stage comprising modules to a total of 120 credits. Students must successfully complete each module in order to be awarded the specified number of credits for that module. One credit corresponds to approximately ten hours of 'learning time' (including all classes and all private study and research). Thus obtaining 120 credits in an academic year requires 1,200 hours of overall learning time. For further information on modules and credits refer to the Credit Framework at <http://www.kent.ac.uk/teaching/qa/credit-framework/creditinfo.html>

Each module and programme is designed to be at a specific level. For the descriptors of each of these levels, refer to Annex 2 of the Credit Framework at <http://www.kent.ac.uk/teaching/qa/credit-framework/creditinfoannex2.html>. To be eligible for the award of an honours degree students must obtain 360 credits (480 including Placement Year), at least 210 of which must be at Level 5 or above, including at least 90 credits at level 6 or above at Stage 3.

Students successfully completing Stage 1 of the programme and meeting credit framework requirements who do not successfully complete Stage 2 will be eligible for the award of the Certificate in Computer Science. Students successfully completing Stage 1 and Stage 2 of the programme and meeting Credit Framework requirements who do not successfully complete Stage 3 will be eligible for the award of the Diploma in Computer Science, Computer Science (Artificial Intelligence /Networks).. Students successfully completing Stage 2 of the programme and achieving 300 credits overall including at least 60 credits at level 6 or above in Stage 3 and meeting Credit Framework requirements will be eligible for the award of a BSc non-honours degree.

Students successfully completing Stage 2 and also the placement year and meeting credit framework requirements will be eligible for the award of the Diploma with a Year in Industry.

For further information refer to the Credit Framework at <https://www.kent.ac.uk/teaching/qa/credit-framework/creditinfo.html#exit-awards>.

Compulsory modules are core to the programme and must be taken by all students studying the programme. Optional modules provide a choice of subject areas, from which students will select a stated number of modules.

Where a student fails a module(s) due to illness or other mitigating circumstances, such failure may be condoned, subject to the requirements of the Credit Framework and provided that the student has achieved the programme learning outcomes. For further information refer to the Credit Framework at <http://www.kent.ac.uk/teaching/qa/credit-framework/creditinfo.html>.

Where a student fails a module(s), but has marks for such modules within 10 percentage points of the pass mark, the Board of Examiners may nevertheless award the credits for the module(s), subject to the requirements of the Credit Framework and provided that the student has achieved the programme learning outcomes. For further information refer to the Credit Framework.

The following modules will not be condoned or compensated

- CO792
- CO793
- CO600
- CO620
- CO650
- CO6HH

For the programmes “with a Year in Industry”, only a single attempt at module CO792 is permitted.

Trailing of modules is not normally allowed. Year in industry degrees are classified as follows: Stage 2 35%, Stage S (Year in Industry) 10% and Stage 3 55%.

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Computer Science

KV Code	Code	Title	Level	Credits	Term(s)
Stage 1					
Compulsory Modules					
COMP3200	CO320	Introduction to Object-Oriented Programming	4	15	1
COMP3220	CO322	Foundations of Computing I	4	15	1
COMP3370	CO337	Computers and the Cloud	4	15	1
COMP3280	CO328	Human Computer Interaction	4	15	1
COMP3230	CO323	Databases and the Web	4	15	2
COMP3250	CO325	Foundations of Computing II	4	15	2
COMP3830	CO383	Problem Solving with Algorithms	4	15	2
COMP5200	CO520	Further Object-Oriented Programming	5	15	2
Stage 2					
Compulsory Modules (Choose EITHER CO519 OR CO539)					
COMP5590	CO559	Software Development	5	15	2
COMP5180	CO518	Algorithms, Correctness and Efficiency	5	15	1
COMP5190	CO519	Theory of Computing	5	15	1
COMP5390	CO539	Web Development	5	15	1
COMP5450	CO545	Functional Programming	5	15	2
COMP5320	CO532	Database Systems	5	15	2
COMP5570	CO557	Computer Systems	5	15	1
COMP5580	CO558	Introduction to Cyber Security	5	15	2
COMP5280	CO528	Introduction to Intelligent Systems	5	15	1
Depending on educational background, Stage 2 direct entry students may be required to take the following module at stage 2 in place of CO519 or CO539 – in which case, at least one of these would be taken in stage 3.					
COMP5230	CO523	Fundamentals of Programming and Logic	5	15	1
Stage S (4-year programmes only)					
Compulsory Modules					
COMP7920	CO792	Industrial Placement Experience	5	90	1-3
COMP7930	CO793	Industrial Placement Report	5	30	1-3
Stage 3					
Compulsory Modules					
Compulsory Modules Students must select one of the following projects:					
COMP6000	CO600	Group Project	6	30	1&2
COMP6200	CO620	Research Project	6	30	1&2
COMP6500	CO650	IT Consultancy Project	6	30	1&2

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Stage 2 direct entry students who didn't take CO519 or CO539 in stage 2 are required to take at least one of them in stage 3 in place of one of the 15 credit options.

COMP5190	CO519	Theory of Computing	5	15	1 or 2
COMP5390	CO539	Web Development	5	15	1 or 2

Optional Modules Students must select 90 credits from the Computer Science optional modules

Computer Science (Artificial Intelligence)

KV Code	Code	Title	Level	Credits	Term(s)
Stage 1					
Compulsory Modules					
COMP3200	CO320	Introduction to Object-Oriented Programming	4	15	1
COMP3220	CO322	Foundations of Computing I	4	15	1
COMP3370	CO337	Computers and the Cloud	4	15	1
COMP3280	CO328	Human Computer Interaction	4	15	1
COMP3230	CO323	Databases and the Web	4	15	2
COMP3250	CO325	Foundations of Computing II	4	15	2
COMP3830	CO383	Problem Solving with Algorithms	4	15	2
COMP5200	CO520	Further Object-Oriented Programming	5	15	2
Stage 2					
Compulsory Modules (Choose 1 of CO519, CO539)					
COMP5590	CO559	Software Development	5	15	2
COMP5180	CO518	Algorithms, Correctness and Efficiency	5	15	1
COMP5190	CO519	Theory of Computing	5	15	1
COMP5390	CO539	Web Development	5	15	1
COMP5450	CO545	Functional Programming	5	15	2
COMP5320	CO532	Database Systems	5	15	2
COMP5570	CO557	Computer Systems	5	15	1
COMP5580	CO558	Introduction to Cyber Security	5	15	2
COMP5280	CO528	Introduction to Intelligent Systems	5	15	1
Stage S (4-year programmes only)					
Compulsory Modules					
COMP7920	CO792	Industrial Placement Experience	5	90	1-3
COMP7930	CO793	Industrial Placement Report	5	30	1-3
Stage 3					
Compulsory Modules Students must select one of the following projects:					
COMP6000	CO600	Group Project	6	30	1&2
COMP6200	CO620	Research Project	6	30	1&2

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COMP6500	CO650	IT Consultancy Project	6	30	1&2
Compulsory Modules					
COMP6360	CO636	Cognitive Neural Networks	6	15	1 or 2
COMP6370	CO637	Natural Computation	6	15	1 or 2
Optional Modules Students must select 60 credits from the Computer Science optional modules					

Computer Science (Networks)

KV Code	Code	Title	Level	Credits	Term(s)
Stage 1					
Compulsory Modules					
COMP3200	CO320	Introduction to Object-Oriented Programming	4	15	1
COMP3220	CO322	Foundations of Computing I	4	15	1
COMP3370	CO337	Computers and the Cloud	4	15	1
COMP3280	CO328	Human Computer Interaction	4	15	1
COMP3230	CO323	Databases and the Web	4	15	2
COMP3250	CO325	Foundations of Computing II	4	15	2
COMP3830	CO383	Problem Solving with Algorithms	4	15	2
COMP5200	CO520	Further Object-Oriented Programming	5	15	2
Stage 2					
Compulsory Modules (Choose 1 of CO519, CO539)					
COMP5590	CO559	Software Development	5	15	2
COMP5180	CO518	Algorithms, Correctness and Efficiency	5	15	1
COMP5190	CO519	Theory of Computing	5	15	1
COMP5390	CO539	Web Development	5	15	1
COMP5450	CO545	Functional Programming	5	15	2
COMP5320	CO532	Database Systems	5	15	2
COMP5570	CO557	Computer Systems	5	15	1
COMP5580	CO558	Introduction to Cyber Security	5	15	2
COMP5280	CO528	Introduction to Intelligent Systems	5	15	1
Depending on educational background, Stage 2 direct entry students may be required to take the following module at stage 2 in place of CO519 or CO539 – in which case, one of these would be taken in stage 3.					
COMP5230	CO523	Fundamentals of Programming and Logic.	5	15	1 or 2
Stage S (4-year programmes only)					
Compulsory Modules					
COMP7920	CO792	Industrial Placement Experience	5	90	1-3
COMP7930	CO793	Industrial Placement Report	5	30	1-3
Stage 3					

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Compulsory Modules Students must select one of the following projects:					
COMP6000	CO600	Group Project	6	30	1&2
COMP6200	CO620	Research Project	6	30	1&2
COMP6500	CO650	IT Consultancy Project	6	30	1&2
Compulsory Modules					
COMP6330	CO633	Computer Networks and Communication	6	15	1 or 2
Stage 2 direct entry students who didn't take one of CO519 or CO539 in stage 2 are required to take one in stage 3 in place of one of the 15 credit options.					
COMP5190	CO519	Theory of Computing	5	15	1 or 2
COMP5390	CO539	Web Development	5	15	1 or 2
Optional Modules Students must select 75 credits from the Computer Science optional modules					

Computer Science (Cyber Security)

KV Code	Code	Title	Level	Credits	Term(s)
Stage 1					
Compulsory Modules					
COMP3200	CO320	Introduction to Object-Oriented Programming	4	15	1
COMP3220	CO322	Foundations of Computing I	4	15	1
COMP3370	CO337	Computers and the Cloud	4	15	1
COMP3280	CO328	Human Computer Interaction	4	15	1
COMP3230	CO323	Databases and the Web	4	15	2
COMP3250	CO325	Foundations of Computing II	4	15	2
COMP3830	CO383	Problem Solving with Algorithms	4	15	2
COMP5200	CO520	Further Object-Oriented Programming	5	15	2
Stage 2					
Compulsory Modules					
COMP5590	CO559	Software Development	5	15	2
COMP5180	CO518	Algorithms, Correctness and Efficiency	5	15	1
COMP5390	CO539	Web Development	5	15	1
COMP5450	CO545	Functional Programming	5	15	2
COMP5320	CO532	Database Systems	5	15	2
COMP5570	CO557	Computer Systems	5	15	1
COMP5580	CO558	Introduction to Cyber Security	5	15	2
COMP5280	CO528	Introduction to Intelligent Systems	5	15	1
Stage S (4-year programmes only)					
Compulsory Modules					

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COMP7920	CO792	Industrial Placement Experience	5	90	1-3
COMP7930	CO793	Industrial Placement Report	5	30	1-3
Stage 3					
Compulsory Modules					
COMP6330	CO633	Computer Networks and Communication	6	15	1 or 2
COMP6FF0	CO6FF	Information Security Management	6	15	1 or 2
COMP6GG0	CO6GG	Secure Programming	6	15	1 or 2
COMP6HH0	CO6HH	Cyber Security Project	6	30	1&2
Optional Modules Students must select 45 credits (3 modules) from the Computer Science optional modules plus COMP5190/CO519 “Theory of Computing” which is not available to them in Stage 2.					

19 Work-Based Learning

Disability Statement: Where disabled students are due to undertake a work placement as part of this programme of study, a representative of the University will meet with the work placement provider in advance to ensure the provision of anticipatory and reasonable adjustments in line with legal requirements.

Where relevant to the programme of study, provide details of any work-based learning element, inclusive of employer details, delivery, assessment and support for students.

- Industrial placement consists of Modules CO792 Industrial Placement Experience (90 credits) and CO793 Industrial Placement Report (30 credits) and usually last a minimum of 44 weeks
- The onus is on student to secure placement, with assistance from the School through 1-to-1 support and guidance, employer presentations and other engagements, CV advice, and interview and assessment centre practice.
- The School Industrial Placement Office oversees the placements and one of the placement officers will typically visit the students during their placement as well as being available via email throughout the placement
- If for any reason the industrial placement cannot be undertaken the student can transfer to the three year version of their programme.
- The placement is assessment via CO792 (which is pass/fail) by way of a portfolio and log book plus a performance evaluation by the industrial supervisor and via CO793 by way of a graded placement report which contributes to classification.
- CO792 cannot be compensated, trailed or condoned; a single attempt only is permitted.
- Only one retrieval attempt is allowed for CO793 where it is failed at the first attempt (i.e. only two attempts in total).
- Where a student does not successfully complete these modules, they will be transferred to the equivalent non-Year in Industry programme, and the Year in Industry will not be taken into account for the purposes of calculating their honours classification.

20 Support for Students and their Learning

- School and University induction programme
- Programme/module handbooks
- Library services <http://www.kent.ac.uk/library/>
- Student Support <http://www.kent.ac.uk/studentsupport/>

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- Student Wellbeing www.kent.ac.uk/studentwellbeing/
- Counselling Service <https://www.kent.ac.uk/studentwellbeing/counselling/>
- Centre for English and World Languages <http://www.kent.ac.uk/cewl/index.html>
- Student Learning Advisory Service <http://www.kent.ac.uk/uelt/about/slas.html>
- PASS system <https://www.kent.ac.uk/teaching/qa/codes/taught/annexg.html>
- Academic Adviser system <https://www.kent.ac.uk/teaching/advisers/index.html>
- Kent Union www.kentunion.co.uk/
- Careers and Employability Services www.kent.ac.uk/ces/
- Information Services (computing and library services) www.kent.ac.uk/is/
- Undergraduate student representation at Subject and Institutional levels
- International Recruitment Office <https://www.kent.ac.uk/internationalstudent/>; International Partnerships Office <https://www.kent.ac.uk/global/partnerships/>
- Medical Centre <https://www.kent.ac.uk/studentssupport/medical-centre.html>

School-specific information about the support available

- Introductory talks at the start of each teaching term of Stages 2 and 3
- On-line Student Data System
- On-line resources containing
 - information on all Computer Science modules including where appropriate
 - Module Learning Outcomes
 - module specification
 - details of any classes
 - module assessment
 - course material
 - anonymous question pages
 - copies of course handbooks
 - past examination papers
 - staff/student liaison information including
 - details of student representatives
 - minutes of Student Voice Committee meetings
- Administrative support via the Student Administration Office
- Industrial placement support via an Industrial Placement co-ordinator and visits by academic staff

21 Entry Profile

The minimum age to study a degree programme at the university is normally at least 17 years old by 20 September in the year the programme begins. There is no upper age limit.

21.1 Entry Route

For current information, please refer to the University prospectus

A level
AAB-BBB

GCSE
Mathematics grade C

Access to HE Diploma

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The University will not necessarily make conditional offers to all Access candidates but will continue to assess them on an individual basis.

If we make you an offer, you will need to obtain/pass the overall Access to Higher Education Diploma and may also be required to obtain a proportion of the total level 3 credits and/or credits in particular subjects at merit grade or above.

BTEC Level 3 Extended Diploma (formerly BTEC National Diploma)

Distinction, Distinction, Distinction

International Baccalaureate

34 points overall or 16 points at HL including Mathematics 5 at HL or SL, or Mathematics Studies 6 at SL

21.2 What does this programme have to offer?

- Teaching that is informed by research activity, using research-led teaching whenever possible
- The development of a broad range of skills that are highly sought after by employers and which open up a wide range of careers to graduates, within Computing and other professional fields.
- Programming, modelling and design skills you can use throughout a career in Computing
- Coverage of software engineering principles which underlie large scale programme construction
- Strong links with Industry that are maintained through an 'Industrial Panel' and which result in industrial placements and joint research projects.
- An optional year in industry that provides valuable experience

21.3 Personal Profile

Desirable qualities include:

- an enthusiasm about computing and related subjects
- a willingness to accept new ideas and be flexible in your thinking
- a willingness to work with others
- good communication skills
- an interest in developing a career in a computing related area

22 Methods for Evaluating and Enhancing the Quality and Standards of Teaching and Learning

22.1 Mechanisms for review and evaluation of teaching, learning, assessment, the curriculum and outcome standards

- Student module evaluations
- Annual programme and module monitoring reports
<http://www.kent.ac.uk/teaching/ga/codes/taught/annexe.html>
- External Examiners system <http://www.kent.ac.uk/teaching/ga/codes/taught/annexk.html>
- Periodic programme review <http://www.kent.ac.uk/teaching/ga/codes/taught/annexf.html>
- Annual staff appraisal
- Peer observation
- Quality Assurance Framework <http://www.kent.ac.uk/teaching/ga/codes/index.html>
- QAA Higher Education Review

School-specific information

- Student representation on key committees

<ul style="list-style-type: none"> • External accreditation of courses • Active staff development programme • Continuous monitoring of student progress and attendance • Vetting process of examination questions by module team, and external examiners • Staff acting as external examiners at other institutions • Double marking and/or moderation of examinations and some assessed work • Industrial links • Evaluation of graduate destination statistics • Module teams • Programme Teams • External accreditation by British Computer Society Full Chartered IT Professional (CITP) and CEng (partial)
<p>22.2 Committees with responsibility for monitoring and evaluating quality and standards</p>
<ul style="list-style-type: none"> • Student Voice Committee • School Education Committee • Education Board • Board of Examiners
<p>22.3 Mechanisms for gaining student feedback on the quality of teaching and their learning experience</p>
<ul style="list-style-type: none"> • Student module evaluations • Student Voice Committee • Student rep system (Subject and Institutional level) • Annual NSS <p>School-specific mechanisms used to obtain student feedback</p> <ul style="list-style-type: none"> • University Internal Student Surveys • Discussions with tutor • Discussions with senior tutor • Anonymous question pages for individual modules • Student programme evaluations • Informal meetings and social contact with students (including student role in recruitment activities) • Student representation on subject-based and university-based committees •
<p>22.4 Staff Development priorities include:</p>
<ul style="list-style-type: none"> • PGCHE requirements • HEA (associate) fellowship membership • Annual appraisals • Institutional Level Staff Development Programme • Academic Practice Provision (PGCHE, other development opportunities) • Professional body membership and requirements • Programme team meetings • Research seminars • Conferences • Study leave

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- Equality, Diversity and Inclusivity (EDI) awareness

School-specific staff development opportunities

- Staff members have an individual allocation of funds which they may use to develop any of their interests, including those of teaching and learning
- Staff training of various kinds including appraiser training, interview training, meeting skills etc.
- Participation in staff development week
- Research group support for research-led teaching
- Annual away-days that cover a number of staff-related issues
- Module team meetings
- Regular formal and informal collaboration in programme development
- Attendance at relevant industry/business conferences/seminars
- Minimum expected qualifications for appointments to lecturing posts
- Minimum expected research record for appointments to lecturing posts
- Membership of relevant professional/academic bodies
- Widening participation
- Health and safety
- Participation on learning and teaching innovatory projects

23 Indicators of Quality and Standards

- Results of periodic programme review March 2019
- Professional accreditation by the British Computer Society, Full Chartered IT Professional (CITP) and CEng (partial) renewed in 2018.
- QAA Higher Education Review 2015
- Annual External Examiner reports
- Annual programme and module monitoring reports

School-specific indicators

- Degree results and graduate recruitment statistics

23.1 The following reference points were used in creating these specifications:

- QAA UK Quality Code for Higher Education
- QAA Benchmarking statement/s for Computing (2019)
 - Accreditation requirements of by the British Computer Society, Full Chartered IT Professional (CITP) and CEng (partial).
- School plan
- University Plan <https://www.kent.ac.uk/about/plan/> and Learning and Teaching Strategies <https://www.kent.ac.uk/uelt/strategies/lta.html>
- Staff research activities

Kent Inclusive Practices (<https://www.kent.ac.uk/studentssupport/accessibility/inclusive-practice.html>)

24 Inclusive Programme Design

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the programme is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

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Learning Outcomes Matrix – Computer Science

CS	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	D1	D2	D3	D4	D5	D6	D7	D8	
Required																																
CO320		X		X				X					X	X		X	X		X							X		X				
CO322														X													X	X				
CO337	X	X	X	X				X	X	X		X				X	X	X	X						X	X		X			X	
CO328			X	X				X		X			X			X	X	X	X					X		X		X				
CO323		X	X	X				X			X		X			X	X	X	X								X		X			
CO325														X													X	X				
CO383		X		X	X			X		X	X	X				X			X					X		X	X	X				
CO520		X		X		X		X				X	X	X		X	X															
CO559		X		X				X	X	X	X	X	X			X	X		X	X					X			X	X	X		
CO518		X		X	X			X		X	X	X		X		X	X										X	X	X			
CO545		X	X	X	X			X				X		X		X											X					
CO532		X		X	X			X	X	X						X	X	X							X	X		X				
CO557	X	X						X				X				X	X		X						X	X		X				
CO558	X	X	X	X		X		X		X	X	X	X			X	X		X	X						X	X	X	X		X	X
CO528		X		X	X	X		X			X			X		X							X		X	X		X				
One of																																
CO519				X	X			X		X		X				X			X								X	X				
CO539		X	X	X				X		X	X	X				X	X	X	X		X					X		X				
Direct Entry																																
CO523		X	X	X	X			X				X	X	X		X	X		X								X		X			
Year in industry																																
CO792							X								X								X	X	X	X	X	X	X	X		
CO793							X								X								X	X	X	X	X	X	X	X		
One of																																
CO600	O	X	O	X	O	X	O	O	X	X	X	X	X	X	O	X	X	X	X	X	X	X	O	X	X	X	X	X	X	X	O	
CO620	O	X	O	X	O	X	O	O	X	X	X	X	O	O	O	X	X	X	X	X	O	X	O		X	X	O	X	O	X	O	
CO650	X	X	X	X				X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		

LOs: A7, B8 and C8 only relate to the year in industry version of the programme

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Learning Outcomes Matrix – Computer Science (Artificial Intelligence)

CS(AI)	A1	A2	A3	A4	A5	A6	A7	A8	A9	B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	C9	D1	D2	D3	D4	D5	D6	D7	D8		
Required																																				
CO320		X		X						X					X	X		X	X		X									X		X				
CO322																X														X	X					
CO337	X	X	X	X						X	X	X		X				X	X	X	X							X	X		X				X	
CO328			X	X						X		X			X			X	X	X	X							X		X		X				
CO323		X	X	X						X			X		X			X	X	X	X									X		X				
CO325																X														X	X					
CO383		X		X	X					X		X	X	X				X			X							X		X	X	X				
CO520		X		X		X				X				X	X	X		X	X										X		X					
CO559		X		X						X	X	X	X	X	X			X	X		X	X							X			X	X	X		
CO518		X		X	X					X		X	X	X		X		X	X											X	X	X				
CO545		X	X	X	X					X				X		X		X												X						
CO532		X		X	X					X	X	X						X	X	X									X	X		X				
CO557	X	X								X				X				X	X		X								X	X		X				
CO558	X	X	X	X		X				X		X	X	X	X			X	X		X	X							X	X	X	X		X	X	
CO528		X		X	X	X		X	X	X			X			X		X							X		X		X	X		X				
CO636		X		X				X	X	X	X							X							X		X	X	X	X		X				
CO637		X		X	X	X			X	X						X		X	X						X		X			X		X				
One of																																				
CO519				X	X					X		X		X				X			X									X	X					
CO539		X	X	X						X		X	X	X				X	X	X	X			X					X		X					
Year in industry																																				
CO792								X									X									X		X	X	X	X	X	X	X		
CO793							X										X									X		X	X	X	X	X	X	X		
One of																																				
CO600	O	X	O	X	O	X	O	O	O	O	X	X	X	X	X	X	O	X	X	X	X	X	X	X	O	O	X	X	X	X	X	X	X	X	O	
CO620	O	X	O	X	O	X	O	O	O	O	X	X	X	X	O	O	O	X	X	X	X	X	X	O	X	O	O		X	X	O	X	O	X	O	
CO650	X	X	X	X						X	X	X	X	X	X		X	X	X	X	X	X	X	X				X	X	X	X	X	X	X		

LOs: A7, B8 and C8 only relate to the year in industry version of the programme

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Learning Outcomes Matrix – Computer Science (Networks)

CS (Net)	A1	A2	A3	A4	A5	A6	A7	A10	B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	C10	D1	D2	D3	D4	D5	D6	D7	D8			
Required																																				
CO320		X		X					X					X	X		X	X		X									X		X					
CO322															X														X	X						
CO337	X	X	X	X					X	X	X		X				X	X	X	X								X	X	X		X			X	
CO328			X	X					X		X			X			X	X	X	X							X		X		X					
CO323		X	X	X					X			X		X			X	X	X	X									X		X					
CO325															X														X	X						
CO383		X		X	X				X		X	X	X				X			X							X		X	X	X					
CO520		X		X		X			X				X	X	X		X	X																		
CO559		X		X					X	X	X	X	X	X			X	X		X	X							X			X	X	X			
CO518		X		X	X				X		X	X	X		X		X	X											X	X	X					
CO545		X	X	X	X				X				X		X		X												X							
CO532		X		X	X				X	X	X						X	X	X									X	X		X					
CO557	X	X							X				X				X	X		X								X	X		X					
CO558	X	X	X	X		X		X	X		X	X	X	X			X	X		X	X							X	X	X	X		X	X		
CO528		X		X	X	X			X			X			X		X											X	X		X					
CO633			X	X				X	X		X	X	X				X			X		X	X		X		X	X	X	X	X					
One of																																				
CO519				X	X				X		X		X				X			X									X	X						
CO539		X	X	X					X		X	X	X				X	X	X	X		X							X		X					
Direct Entry																																				
CO523		X	X	X	X				X				X	X	X		X	X		X									X		X					
Year in industry																																				
CO792							X									X								X			X	X	X	X	X	X	X			
CO793							X									X								X			X	X	X	X	X	X	X			
One of																																				
CO600	O	X	O	X	O	X	O	O	O	X	X	X	X	X	X	O	X	X	X	X	X	X	X	O	O	X	X	X	X	X	X	X	X	X	O	
CO620	O	X	O	X	O	X	O	O	O	X	X	X	X	O	O	O	X	X	X	X	X	X	O	X	O	O		X	X	O	X	O	X	O	O	
CO650	X	X	X	X					X	X	X	X	X	X		X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X		

LOs: A7, B8 and C8 only relate to the year in industry version of the programme

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Learning Outcomes Matrix – Computer Science (Cyber Security)

CS (Cyber)	A1	A2	A3	A4	A5	A6	A7	A11	A12	B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	C11	D1	D2	D3	D4	D5	D6	D7	D8	
Required																																			
CO320		X		X						X					X	X		X	X		X								X		X				
CO322																X														X	X				
CO337	X	X	X	X						X	X	X		X				X	X	X	X						X	X		X				X	
CO328			X	X						X		X			X			X	X	X	X						X		X		X				
CO323		X	X	X						X			X		X			X	X	X	X								X		X				
CO325																X														X	X				
CO383		X		X	X					X		X	X	X				X			X						X		X	X	X				
CO520		X		X		X				X				X	X	X		X	X																
CO559		X		X						X	X	X	X	X	X			X	X		X	X						X			X	X	X		
CO518		X		X	X					X		X	X	X		X		X	X										X	X	X				
CO539		X	X	X				X		X		X	X	X				X	X	X	X		X			X			X		X				
CO545		X	X	X	X					X				X		X		X											X						
CO532		X		X	X					X	X	X						X	X	X									X	X		X			
CO557	X	X								X				X				X	X		X							X	X		X				
CO558	X	X	X	X		X		X	X	X		X	X	X	X			X	X		X	X				X			X	X	X		X	X	
CO528		X		X	X	X				X			X			X		X						X				X	X		X				
CO633			X	X						X		X	X	X				X			X		X	X				X	X	X	X				
CO6FF				X				X				X	X	X	X				X				X			X		X	X				X		
CO6GG		X	X	X				X	X			X	X	X				X	X		X		X	X		X		X	X	X			X		
CO6HH	O	X	O	X	O		O	O	O	O	X	X	X	X	X	X	O	X	X	X	X	X	X	X	O	X		X	X	X	X	X	X	X	O
Y in I																																			
CO792							X										X								X		X	X	X	X	X	X	X		
CO793							X										X								X		X	X	X	X	X	X	X		

LOs: A7, B8 and C8 only relate to the year in industry version of the programme

