

Changes to previous information

During the global COVID-19 pandemic, we prioritised the health, wellbeing and safety of our students and staff.

As we start the new academic year, your health, wellbeing and safety remains our top priority. This means when we return to our campuses and buildings in September 2020 social distancing and other health and safety measures will be in place. This is to help keep you, and others around you, safe. We will respond to the requirements of vulnerable students regarding their personal safety on an individual basis.

We remain committed to delivering an outstanding education and student experience both on campus and online. Like most universities, we'll be providing a mix of on-site face-to-face and digital learning and teaching. The exact mix will vary between courses and course modules taking into account teaching requirements and other considerations such as meeting the safety of vulnerable staff.

It is important to emphasise that a face-to-face, on-site experience will be delivered within the Government and Public Health England guidance and providing there are no serious unforeseeable public health issues that result in the Government introducing further lockdown measures.

Our response to the pandemic means we may have made changes to your course. This is to take account of these important health and safety measures.

We ask you to read the information provided about course changes carefully. We detail what we include in our online prospectus and explain what has changed.

You should read our statement of changes alongside any information provided in videos, at open days or in other promotional materials. This is because the information may also have been affected by the changes we had to make. We are providing this information so you can make an informed choice about whether the course remains suitable for you.

When you register for your course, you will be asked to confirm you have read about our changes and you agree to them. It means that by choosing to continue with your application, and register with us, you accept these changes and are happy to study your course with us.

We really look forward to seeing you in the next academic year. In the meantime, if you want to find out more about University life from this September, and being part of our supportive and welcoming community, please visit our [September 2020 web pages](#).

Current published course related information		
Course title	Computing	
Award level	BSc– Single honours only	
How do you want to study?		
Start Date	Sept 2020	
Modes of study	Full-time Part-time Full-time with year in industry	
Duration	3 years full-time 6 years part-time 4 years full-time with year in industry	
UCAS code	G400 G404 (with year in industry)	
Location	Canterbury	
Partner institution	N/A	
Available with a Foundation Year	Yes	
Overview		
	<p>Our Computing degree will equip you with the skills and knowledge needed to excel in the IT industry in infrastructure and user support.</p> <p>You will gain a broad overview of IT systems in the workplace, from designing them to maintaining them, and supporting their users. Areas of focus include networking, system administration, databases and cybersecurity, as well as professional skills in business improvement, E-business and usability.</p> <p>This degree will enable you to choose from a wide range of career paths in system design and support, or move onto postgraduate study.</p>	
Why study Computing?		
	This course has been designed to meet the real needs of the computing industry, particularly in relation to infrastructure development and support. For the technical skills we use a mix of common hardware,	This course has been designed to meet the real needs of the computing industry, particularly in relation to infrastructure development and support. For the technical skills we use

	<p>open source and commercial software that is heavily used in industry, so skills developed on the course can immediately be used in in the workplace.</p> <p>You may go onto a wide range of career pathways in designing and supporting: networks, hardware and software installation of standard or bespoke software, testing and user support as well as the opportunity to extend your knowledge to Masters degree and/or MPhil/PhD level.</p>	<p>a mix of common hardware, open source and commercial software that is heavily used in industry, so skills developed on the course can immediately be used in in the workplace.</p> <p>This course will enable you to develop specialist skills and in depth knowledge, so that you can play a key role as a computing professional</p> <p>The course learning is adhering to World Health Organisation (WHO) and UK GOV Coronavirus guidance to ensure a safe learning and working environment during COVID19 endemic. The course will consist of blend of on and off campus practical learning in computing laboratories and off-campus on-line theoretical and practical learning. The off-campus hands on practical learning are being designed to use open source, student licensed software (which we have invested in) and cloud-based software resources so we can support your learning in your home. The on and off campus and on-line practical learning are being designed to help you develop practical skills, also an enquiring mind and demonstrating your technical skills and creativity.</p> <p>On-line learning will be provided by virtual learning environment Blackboard and appropriate specialist software tools that support certain module areas, for example computer programming using MS Visual Studio Live.</p> <p>Read less</p> <p>The on and off campus on-line practical elements of the course we will help you develop on and off campus will prepare you to enter a career in computer hardware or</p>
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	<p>software, you'll gain a solid grounding in computing and will learn skills to support you with your degree and beyond.</p> <p>Following the CDIO - conceive, design, implement and operate - model of learning, you'll cover all the elements of computing projects from conception, through design and implementation to final operation and review.</p> <p>You will gain a broad overview of IT systems in the workplace, from designing them to maintaining them, and supporting their users. Areas of focus include networking, system administration, databases and cybersecurity, as well as professional skills in business improvement, E-business and usability.</p> <p>You will have the opportunity to take in your third year, providing you meet the requirements. If you can identify and secure a placement opportunity, with the support from the computing team. A placement will provide you with the further opportunity to develop your skills as a practicing computing professional, a personal development plan and evidence of your abilities for your future employers.</p> <p>You may go onto a wide range of career pathways in designing and supporting: networks, hardware and software installation of standard or bespoke software, testing and user support as well as the opportunity to extend your knowledge to Masters degree and/or MPhil/PhD level.</p>
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Entry requirements	<p>A typical offer would be 88-112 UCAS Tariff points. GCSE English and Mathematics at grade C, or above (or equivalent) is required.</p> <p>More information about entry requirements.</p> <p>This degree is also available with a Foundation Year.</p>	
About the course		
Years 1-3	N/A	<p>All through the course, you'll experience through hands-on learning from on and off campus and on-line learning. This will develop your practical agile problem-solving approach to create computing solutions to problems. You will undertake group projects, typically sourced from industry or akin to problems in industry. Your groupwork will be supported through the use on-line tools and on-line project management solutions. You'll also develop skills enabling you to:</p> <ul style="list-style-type: none"> • work effectively and supportively in diverse and inclusive groups • communicate effectively in groups and one to one • apply project management to group-work • apply principles of commercial management and consideration of wider issues. <p>In the year one you will study six modules intended to give you a broad introductory understanding of the role computing plays in industry and a foundation in the tools required to develop and support infrastructure. You will also gain a first-hand appreciation of software and systems development. You will learn to program on PCs and on small hardware devices, how these devices work and work in a small team to develop a more</p>

		<p>complex system. You will also consider some of the ethical issues in computing and explore the needs of the computing industry in terms of skill sets.</p> <p>The technical and non-technical skills that you will have the opportunity to develop are valued in industry.</p>
<p>Module information</p>		
<p>- Please note that the list of optional modules and their availability may be subject to change. We continually review and where appropriate, revise the range of modules on offer to reflect changes in the subject and ensure the best student experience. Modules will vary when studied in combination with another subject.</p>		
<p>Core year 1</p>		
	<p>Introduction to C# Core module - (20 Credits)</p> <p>This module introduces the C# programming language and the Visual Studio Integrated Development Environment (IDE). The module is an initial module in computer programming and will assume no prior knowledge of programming. This module provides support for the Design and Implement elements of the CDIO module.</p>	
	<p>Deployment Technologies for Computing Core module - (20 Credits)</p> <p>Here, you will be exposed to basic understanding of electronic principles, sensors, wiring up electronic components, programming hardware systems, controls, robotics and also introduce a rapid application development platform to build mobile applications for a deployment system using visual and model driven approach.</p>	
	<p>Fundamentals of Computer Systems Core module - (20 Credits)</p> <p>This module aims to provide a foundation in computer systems and related topics, the areas of: number systems, hardware, digital systems and digital communication. Students will use software tools (e.g. Microcontroller based simulator, logic gate simulators, CPU simulators, Network</p>	

	<p>simulators, etc.) with supplementary tutorials and hands-on demonstrations to understand the underpinning concepts.</p>	
	<p>Application Development Core module - (20 Credits)</p> <p>On this module, you will increase your capability to develop simple C# solutions to problem situations. This will cover more complex programming concepts than looked at in Introduction to C# as well as concepts of Graphical User Interface development and design and linking C# systems to file store and database systems.</p>	
	<p>Ethics, Professionalism and Employability in Computing Core module - (20 Credits)</p> <p>This module aims to give a good understanding of ethical, professional and employability issues you will encounter when embarking on a career in computing. The module will focus on the kind of roles available to computer professionals and discuss the choices required, both in general and with regard to the degree modules that might best guide you into a particular career. You will have the opportunity to research and explore the knowledge required for their chosen career and be encouraged to discuss the ethical and professional issues relating to these areas.</p>	
	<p>Software Lifecycle Group Development Project Core module - (20 Credits)</p> <p>To develop your understanding of the fundamental concepts of software engineering you will work through a project in teams to develop a piece of software. You will work through the software life-cycle tasks to developing a computer-based solution to meet specific user requirements through the development of a simple system. You will also develop your understanding of what is required for good team formation and operation.</p>	
Optional year 1		
	N/A	

Core year 2		
	<p>Using Technology for Business Process Improvement Core module - (20 Credits)</p> <p>This module introduces the role of Business Improvement as a necessary part of a modern business. You will look at the two different categories of Business Improvement activities – top-down and bottom-up – and the processes and toolsets used to support this. The intention is to determine which technological solutions will mesh into any new or old business process to transform productivity. The role of standard methodologies to manage improvement projects such as PRINCE2 and Agile approaches will be examined.</p>	
	<p>Research Methods Core module - (20 Credits)</p> <p>This module aims to help you understand methodologies which are essential to conduct research in the area of computing. This will form an important theoretical underpinnings for the ‘Individual Study’ module in Level 6, which is itself research based. You will get to understand the elements of research process including formulating questions, understanding the theory and ethics, building evidences, assessing validity and presenting results. You will also learn analysis using a range of qualitative and quantitative data and will be encouraged to critically evaluate methods, strategies and data that are used in research.</p>	
	<p>Database Enhancement Group Project Core module - (20 Credits)</p> <p>The module aims to provide you with a practical appreciation of the fundamental issues involved in designing, implementing and testing a small relational database application in a multi-user environment using an industry standard database management system. You will be taking an existing database and making improvements to this while understanding the modelling concepts and theory to understand database systems.</p>	

	<p>Helping Users and the ITIL Framework Core module - (20 Credits)</p> <p>This module aims to help you develop knowledge and understanding of cost effective IT service management to help users and improve business' productivity. In line with this, you will learn to identify, plan, deliver, improve, and support IT services. In addition, you will also learn to implement ITIL framework in practice.</p>	
	<p>Networking and Operating Systems Core module - (20 Credits)</p> <p>The aim of this module is to first introduce you to basic principles of operating systems and undertake practical exercises on basic administrative tasks. You will also be introduced to the fundamental aspects of Computer Networks. Key aspects such as the design, construction and operation of Local and Wide Area Networks, and the layered protocol architecture are covered. The module aims to reinforce the taught material using physical equipment and software tools in a laboratory environment.</p>	
	<p>E-Business Systems Core module - (20 Credits)</p> <p>The module will help you gain an understanding of web-based systems and business activities and interaction between business. You will look at the business environment and how technologies can be deployed to enhance these activities in terms of software engineering and business transactions.</p>	
Optional year 2		
	N/A	
Core year 3		
	<p>Individual Study - Part A Core module - (20 Credits)</p> <p>The Individual Study is your opportunity to demonstrate your capabilities and what you have learned over your time at University and is worth a third of your final year credits. You will perform a research task that will usually involve literature and practical work. You will write a dissertation</p>	

	to describe your work and create a poster to present the work to a broad range of people.	
	<p>Advanced Networking Core module - (20 Credits)</p> <p>Building on level 5 module Networking and Operating Systems, this module aims to prepare you to meet the challenges in a constantly advancing industry and equip you with advanced knowledge and understanding of recent advancements in communications and networking technologies. The module further aims to develop your ability to analyse and evaluate network related problems and draw on the theoretical and practical knowledge to tackle operational, management and regulatory issues.</p>	
	<p>Cybersecurity Core module - (20 Credits)</p> <p>In this module you will learn to how to perform a risk assessment of a variety of assets linked to an organisation, such as information, computers, networks, delivery and supply chains, people and buildings. You will then develop skills to protect information systems (hardware, software and associated infrastructure), the data on them, and the services they provide, from unauthorised access, harm or misuse.</p>	
	<p>Individual Study - Part B Core module - (20 Credits)</p> <p>You will continue your work on your Individual Study.</p>	
	<p>Human Computer Interaction Core module - (20 Credits)</p> <p>The module shows you to concepts relating to how to ensure usability is part of the design of new systems and to introduce systematic approaches to the design and analysis of user interfaces. You will explore the new research, developments and future direction of the field to enhance the interaction between humans and computers and create more powerful, faster, simpler and intuitive experiences.</p>	

Optional year 3		
	<p>Current Issues in Computing Optional module - (20 Credits)</p> <p>This module examines a range of current issues within the field of computing and places them with a broader academic context providing a multi-disciplinary perspective to an otherwise specialised field of study. No prior knowledge of disciplines outside the field of computing is required, but a good understanding of computer related subjects is assumed.</p>	
	<p>Advanced Databases and Big Data Optional module - (20 Credits)</p> <p>This module uses the Conceive Design Implement Operate (CDIO) educational framework utilising software engineering fundamentals within the context of conceiving, designing, implementing and operating a complex value added real-world database system. The module follows on directly from the Year 2 Database Enhancement Group Project module. It aims to consolidate/extend the practical and analytical skills required to carry out more advanced logical/conceptual database design and explores alternative ways of modelling data. It also aims to keep students abreast of recent developments in the field; particularly in the storage and effective use structured Big Data.</p>	

How you'll learn

Teaching

This degree uses the pioneering CDIO (Conceive, Design, Implement, Operate) education model – developed by the world-renowned Massachusetts Institute of Technology (MIT) in collaboration with business. This will help your natural creativity and thirst for problem-solving flourish as you learn and some of your teaching will be done via real-world inspired projects. You will be taught through a combination of lectures, seminars and practical labs. You will typically have around 12 contact hours per week and are expected to also spend about 4 hours each week coordinating with team members on group activities. Labs will often emphasise working in small groups to enable you to discuss and develop your understanding of topics covered in lectures and place theory into practice.

You will also have regular scheduled meetings, in addition to the above contact hours, with an assigned academic personal tutor, which is your first point of contact for assistance to your undergraduates needs.

Your actual contact hours depend on the option modules you select.

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All programmes are informed by the University's Learning and Teaching Strategy 2015-2022.

The course learning is adhering to [World Health Organisation \(WHO\)](#) and [UK GOV Coronavirus guidance](#) to ensure a safe learning and working environment during COVID19 endemic. The course will consist of blend of on and off campus practical learning in computing laboratories and off-campus on-line theoretical and practical learning. The off-campus hands on practical learning are being designed to use open source, student licensed software (which we have invested in) and cloud-based software resources so we can support your learning in your home. The on and off campus and on-line practical learning are being designed to help you develop practical skills, also an enquiring mind and demonstrating your technical skills and creativity.

On-line learning will be provided by virtual learning environment Blackboard and appropriate specialist software tools that support certain module areas, for example computer programming using MS Visual Studio Live.

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		<p>team members on group activities. Labs will often emphasise working in small groups to enable you to discuss and develop your understanding of topics covered in lectures and place theory into practice.</p> <p>You will also have regular scheduled meetings on-line and in person, in addition to the above contact hours, with an assigned academic personal tutor, which is your first point of contact for assistance to your undergraduates needs.</p> <p>Your actual contact hours depend on the option modules you select.</p> <p>All programmes are informed by the University's Learning and Teaching Strategy 2015-2022.</p>
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<p>Independent learning</p>	<p>When not attending timetabled sessions it is expected you will continue learning through self-study. Typically, this involves completing computer-based exercises, preparing for workshops and seminars, undertaking research in the library, working on projects, undertaking coursework assignments or preparing for class-tests and examinations and reading journal articles and books. Your module leader will direct you towards specific readings and/or activities to complete before class.</p> <p>For your final year individual study (dissertation), you will undertake independent research and will be assigned a supervisor; who will guide you through your first substantial and independent work through regular scheduled meetings.</p>	
<p>Overall workload</p>	<p>Your overall workload typically consists of 12 contact hours and an additional 25 hours of independent learning. In addition, there may be field trips.</p> <p>For each 20-credit module, your study time will about 10 hours a week plus work on assessments or preparation for examinations. Assessments would normally be expected to take approximately 50 hours for an assignment worth 50% of a 20 credit module. A similar amount of preparation and revision time would be expected for an examination worth 50% of a 20 credit module.</p>	<p>Your overall workload typically consists of per module of 50 contact hours and an additional 150 hours of independent learning per semester. In addition, there may be field trips permitting World Health Organisation (WHO) and UK GOV Coronavirus guidance to ensure a safe learning and working environment for all parties.</p> <p>For each 20 credit module, your study time will about 10 hours a week plus work on assessments or preparation for examinations. Assessments would normally be expected to take approximately 50 hours for an assignment worth 50% of a 20 credit module. A similar amount of preparation and revision time would be expected for an examination worth 50% of a 20 credit module.</p>
<p>Academic input</p>	<p>The team consists of highly qualified academics. They have a range of expertise and experience.</p> <p>All our team members hold Doctoral or professional qualifications (e.g. Member of the British Computer Society or Eur. Ing.).</p>	

	<p>Read more about the current teaching. You should note members of the teaching team might change.</p> <p>Postgraduate students assist in some teaching and assessing some modules. However, experienced academics teach the majority of lectures and seminars.</p>	
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How you'll be assessed

	<p>You will be assessed largely by coursework, though some modules will also have examinations or class tests.</p> <p>Coursework is mainly practically-oriented with appropriate theoretical elements to ensure a well-rounded education.</p> <p>Assessments are generally individual, with group work in some modules where this matches the approaches used in industry. We use coursework assessment methods based on their suitability for specific modules. Formative feedback is provided formally in year one and during the year three individual study, and informally in workshops and seminars.</p> <p>Methods of assessment used include production of software artefacts, project plans and diaries, essays, reports, 'investigation-based' presentations, oral presentations, individual studies/projects, poster presentations, online assessment, logs, examinations and time constrained assignments.</p> <p>Feedback</p> <p>You will receive feedback on all practice assessments and on formal assessments undertaken by coursework. Feedback on examination performance is available upon request from the module leader. Feedback is intended to help you learn and you are encouraged to discuss it with your module tutor.</p>	<p>Additional information</p> <p>Each academic year consists of a mix of modules that are assessed by coursework only, to modules that are assessed by examination and coursework.</p> <p>In class tests or Examinations maybe open-book, closed book style exam, on-line, or 24hr take home exam.</p> <p>Coursework may include, Engineering log book, Technical drawings, Wiki pages, blogs, pitches to industry, posters, leaflets, engineering manual, etc.</p>
Year 1	80% coursework 13% class test examination 7% presentation	
Year 2	66% coursework 6% class test examination 28% group coursework	
Year 3	60% coursework 30% dissertation 10% class test examination / presentation	
Fees		
UK/EU	Full-time £9,250	
	Part-time £4,625	
Overseas	Full-time £13,000	

	Part-time N/A	
UK/EU – Placement Year	Full-time £1,850	
	Part-time N/A	
Overseas – Placement Year	Full-time N/A	
	Part time N/A	

Course specific costs		
Field Trips (including trips abroad and trips to museums, theatres, workshops etc)	<p>We run several part-funded optional trips per year. Students are expected to pay a share of the overall cost: Typically in the order of £10-£20 per trip for UK regional trips. These are payable two weeks or more in advance of the trip. Fee will cover part of the travel and entry fee (if any).</p> <p>Food and drink are not included.</p> <p>We are hoping to run optional trips further afield in the UK or abroad. A larger student cost may be required for these. This will be indicated to students in advance. Wherever possible we will look to maximise the subsidy offered for the trip.</p>	<p>There may be optional travel to off site locations and field trips will arranged in line with World Health Organisation (WHO) and UK GOV Coronavirus guidance This is to ensure a safe learning and working environment for all parties.</p> <p>Students are expected to pay a share of the overall cost: Typically in the order of £10-£20 per trip for UK regional trips. These are payable two weeks or more in advance of the trip. Fee will cover part of the travel and entry fee (if any).</p> <p>Food and drink are not included.</p>
Travel and Accommodation costs for placements	Students who take the Placement module in Year 3 will be expected to self-fund all travel, accommodation if required, and subsistence costs.	
Text books	Some modules require a purchase of a text book. Text books in computing can cost between £10 and £70 per book. Other modules will use either free books or students will use a number of different books from the library. Students select which books to purchase. Books are highlighted in the first lecture few lectures of a module.	
Clothing/kit	Not required, unless required for placement, where the student will be responsible for these costs, unless essential Health and Safety requirements, where the placement partner organisation will bear the costs.	
Social Events	We do not charge for programme social events at the start and end of each year. Other social events may make a small charge of £15 or less to cover costs.	
Professional accreditation	N/A	
Industry links		
Other important information		

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