

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	Biochemistry and Biological Chemistry with Foundation Year	No Change
Award level	BSc - Single honours only	No Change
How do you want to study?		
Start Date	Sept 2020	No Change
Modes of study	Full-time	No Change
Duration	4 years full-time	No Change
UCAS code	C722	No Change
Location	Canterbury	No Change
Partner institution	N/A	N/A
Available with a Foundation Year	N/A	N/A
Overview		
	<p>This course is designed to teach you the essentials in chemical, biological, physical and mathematical skills needed to help you progress to the rest of the degree.</p> <p>The course has a large focus on lab work enabling to you develop expertise needed to pursue a career in scientific research or the industry. This means that you get to spend more time “doing science”, making learning more exciting.</p> <p>Our foundation year option enables you to join the Biochemistry and Biological Chemistry course even if you don’t have the formal qualifications or experience to meet the entry requirements. It equips you with the knowledge to move into formal degree study, setting you up for future success.</p> <p>You will receive expert, research-informed teaching through the CDIO (Conceive, Design, Implement, Operate) engineering</p>	<p>The School of Psychology and Life Sciences will be delivering your course using a ‘blended’ approach using a range of teaching methods. This offers the best of both worlds: great face-to-face teaching in small groups, including seminars, workshops and tutorials, support by a mix of online interactions to help you understand and explore your subjects. We will work closely with our partners to adapt the delivery of work placements (or their alternative) to the circumstances and incorporate the ways modern professionals work and collaborate online. We will be using Collaborate (accessed through Blackboard) and exploring the use of Microsoft teams as well. This blended approach will be flexible so we can meet your individual needs and adapt as the world around us changes. We</p>

	<p>education method. This lets you take a practical, project-based approach to learning, developing your interpersonal, teamwork and problem-solving skills.</p>	<p>will still be covering the same content as we would have done under normal circumstances and will be assessing you against the same learning outcomes.</p> <p>You will continue to receive expert, research-informed teaching through the CDIO (Conceive, Design, Implement, Operate) engineering education method and we hope that you will be able to undertake practical work throughout your studies to generate new data within the laboratory. If this is not possible due to further COVID-19-based disruptions, research projects and/or laboratory practicals may use previously generated data and pre-recorded simulations or demonstrations of techniques to enable you to compete your learning.</p> <p>If we are unable to meet face to face, then teamwork or group work-based projects will be run online using appropriate professional conference/meeting software.</p> <p>Practical work will be supported by supplementary online demonstrations of key laboratory techniques. In the event of further COVID 19 interruptions, further face to face contingency arrangements are planned to support student learning.</p>
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Why study Biochemistry and Biological Chemistry with Foundation Year?

	<p>During this course, you'll be exploring life at the molecular level, learning about scientific concepts and using your enquiring mind to test your skills in lab-based experiments.</p> <p>From early, on you'll be learning through hands-on practical work in our industry standard labs so that by the end of the degree you'll be experienced in complex laboratory skills.</p>	<p>We really hope that you will be able to undertake practical work throughout your studies to generate new data within the laboratory. However, if we face further COVID-19-based disruptions then research projects or laboratory practicals may use previously generated research data and/or pre-recorded simulations or</p>
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	<p>You'll learn how to apply a theoretical scientific knowledge base to active research areas that address contemporary challenges and you'll look deeply into biochemistry and biological chemistry. This will involve in-depth study of areas such as biological and bioengineering processes, organic and inorganic chemistry, enzymology and kinetics, so that you have the knowledge and skills to complete a major research project in your final year.</p> <p>You'll the chance to gain further skills as part of our 'Added Value' programme and collaborate with biotech companies through the Life Sciences Industry Liaison Lab and advisory companies such as FAST Brogdale.</p> <p>To support you throughout this exciting and challenging degree, you'll receive expert research-informed and involved teaching from experienced academics. You'll also hear from industry professionals and you'll work alongside a number of industrial collaborators at the forefront of scientific research.</p> <p>You'll have the opportunity to complete a placement module, where you'll work in a commercial environment and learn new skills to enhance your CV and help you stand out as an experienced graduate.</p>	<p>demonstrations of techniques that will enable you to compete your learning.</p> <p>Please note that guest lectures and seminars may be delivered as online sessions where applicable.</p> <p>We will endeavour to run our programme of optional 'Added Value' courses but may not be able to if we face further disruption. As the Added Value programmes are offered in addition to your core studies, then if these do not run then this will not affect your studies.</p> <p>We hope to be able to run the optional Work Placement module at level 5; however, if we face further COVID-19 disruptions, it is likely that this module will not run. If this does happen, you will be enrolled upon the Molecular Biology module. As we have carefully integrated employability skills across the modules within your programme, even if this optional module does not run, you will continue to develop these essential skills.</p>
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Entry requirements	Applicants should normally have 32 UCAS Tariff points. We will also welcome applications from students with few or no formal Level 3 qualifications who wish to return to education and applicants may be asked to attend an interview.	No Change
About the course		
Foundation Year	<p>During the foundation year, you'll develop academic skills and you'll learn about the fundamental sciences of chemistry, biology, mathematics and physics so you are prepared to study at degree level.</p> <p>As you progress to the degree, you'll study an equal balance of chemistry and biochemistry and you'll spend a significant amount of time gaining laboratory experience in each year.</p> <p>You'll contribute to real industry-linked research by carrying out individual and group projects, and you'll have the opportunity to work alongside our research groups. You'll also be able to undertake a work placement where you'll have the opportunity to demonstrate your skills and talent to a local employer and contribute to solving real engineering issues.</p>	<p>We have planned to have face-to-face sessions for this academic year which will be supplemented with directed independent learning. Your practical sessions have been condensed into an intensive week of laboratory sessions within each semester so that you can gain essential laboratory skills relevant to your modules.</p> <p>We hope that you will be able to undertake practical work, however, if we face further COVID-19-based disruptions, laboratory practicals may use previously generated research data and/or pre-recorded simulations or demonstrations of techniques.</p> <p>If we are unable to meet face-to-face, then teamwork or group work-based projects will be run online using appropriate conference/meeting software and file sharing.</p> <p>The running of the optional Work Placement module and opportunities to work alongside research groups in individual research projects (the Honours Project) occurs at levels 5 and Level 6 respectively and not within the foundation year as stated here.</p>
Year 1	<p>During the first year, you'll study core subjects including chemistry, biochemistry, mathematics and computing. These provide you with a firm grounding in scientific knowledge, analytical and laboratory skills. Two-thirds of your time will be spent putting your skills and knowledge into practice in laboratories and you'll work on a real research problem as part of a large</p>	<p>At Level 4, we plan that each module will have mainly weekly face-to-face contact sessions on campus, supplemented by directed independent learning.</p> <p>To ensure safe social distancing within our laboratories, we regret that we are</p>

	<p>project provided by local industry. The project will be based on the Conceive, Design, Implement, Operate (CDIO) engineering education approach.</p>	<p>no longer able to provide two-thirds of your contact time as practical work. Your practical sessions have been condensed into an intensive week of laboratory sessions within each semester to minimise your time on campus and allow you to develop essential laboratory skills relevant to your modules.</p> <p>We hope that you will be able to undertake practical work within our laboratories to generate data for the CDIO-based project. However, if we face further COVID-19-based disruptions, research projects and laboratory practicals may use previously generated research data, pre-recorded simulations or demonstrations of techniques that will enable you to develop your knowledge of these techniques and complete your learning.</p>
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Year 2	<p>In Year 2, you'll deepen your knowledge of chemistry, biochemistry and molecular biology and you'll study organic, inorganic and analytical chemistry. In addition, there is an optional work placement module that will enable you to gain valuable work experience within a relevant employment sector. You will undertake a further CDIO-based project that will address a question of interest and relevance to industry. This project will allow you to apply your knowledge and to develop as a scientist.</p>	<p>At Level 5, your sessions will be delivered as a blended learning mix of on-campus face-to-face sessions and online interactive class workshops. We will employ a “flipped learning” approach where we will expect you to prepare for the online class workshops by undertaking the directed study beforehand. You will also receive an intensive week of practical laboratory sessions each semester to give you the essential laboratory skills relevant to your modules.</p> <p>We hope that you will be able to undertake practical work within our laboratories to generate data for the CDIO-based project. However, if we face further COVID-19-based disruptions, research projects and laboratory practicals may use previously generated research data, pre-recorded simulations or demonstrations to enable you to complete your learning.</p> <p>If we are unable to meet face-to-face, then teamwork or group work-based projects will be run online using appropriate conference/meeting software and file sharing.</p> <p>We hope to be able to run the optional Work Placement module at level 5; however, if we face further COVID-19 disruptions, then it is likely that this module will not run. If this does happen, you will be enrolled upon the optional module Molecular Biology as an alternative. Employability skills have been carefully integrated across the modules within your programme to ensure that you will continue to develop these essential skills.</p>
Year 3	<p>In the final year, you'll demonstrate your scientific competence and independence by</p>	<p>At level 6, Substantial elements of</p>

	<p>devising and undertaking a piece of novel research that will be presented as a fully referenced scientific paper and in the form of an oral presentation of a poster. You will also learn about bioinorganic and metal coordination chemistry, whilst also extending your applied chemistry skills.</p> <p>During the course, you will have the opportunity to participate in the 'Added Value Programme' giving you further specialist training supplementary to course material in order to meet your specific individual interests and career aspirations. You'll have a number of opportunities to gain work experience through summer internships either within research laboratories supervised by University staff or in collaboration with industrial partners at the Industry Liaison Labs at Discovery Park.</p>	<p>programme delivery will be interactive online delivery using the "flipped learning" approach, which means that it is essential that you read material, watch video content or undertake tasks in preparation for a interactive session.</p> <p>You will also undertake a research project as part of your studies that can be carried out in any of our science laboratories.</p> <p>We hope that you will be able to undertake practical work within our laboratories to generate data for your honours project. However, if we face further COVID-19-based disruptions, research projects may use previously generated research data for subsequent analysis and critique within the project.</p> <p>We will endeavour to run our programme of optional 'Added Value' courses but may not be able to if we face further disruption. As the Added Value programmes are offered in addition to your core studies, then if these do not run then this will not affect your studies.</p> <p>We will endeavour to run our summer internship positions and we will work closely with our partners to adapt their delivery to the circumstances if possible. Summer internships are offered as additional opportunities and so if unavailable will not affect your studies.</p>
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Module information

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.

Foundation Year

	Introduction to Chemistry	You will develop the key practical skills
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	<p>Core module - (0 Credits)</p> <p>In this module, you'll study fundamental chemical concepts such as atomic structure, chemical nomenclature, bonding, stoichiometry and a range of chemical reactions. You will also develop basic chemistry laboratory skills.</p>	<p>associated with this module as part of an intensive practical week.</p> <p>In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques.</p>
	<p>Fundamentals of Biology Core module - (0 Credits)</p> <p>You'll explore the central principles of biology, namely the basic structure, function and variety of living organisms. You will also gain transferable skills needed to understand scientific reasoning and to undertake scientific investigations.</p>	<p>This core module has changed its name to Biological Concepts. The module content remains unchanged.</p> <p>You will develop the key practical skills associated with this module as part of an intensive practical week.</p> <p>In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques.</p>
	<p>General Science Skills Core module - (0 Credits)</p> <p>You will gain basic transferable skills needed to understand scientific reasoning and scientific investigations, and to effectively communicate scientific ideas and outcomes.</p>	<p>No Change</p>
	<p>Mathematics for Scientists Core module - (0 Credits)</p> <p>This module will cover mathematics skills relevant to chemical engineering students. You will review basic mathematical skills before covering more advanced mathematical skills such as algebra, mathematical functions, geometry, trigonometry and the use of appropriate technology to perform calculations and manipulate data.</p>	<p>This module is no longer part of your programme. The content has been incorporated into the module called General Science Skills.</p> <p>This module has been replaced with Advancing Biology – a Core module</p> <p>The aim of this module is to build on material learned in the module 'Biological Concepts'. Elements of genetics and molecular biology are extended and you will be introduced to various facets of the environmental sciences, including ecology and conservation, agricultural science, and</p>

		<p>pollution science. You will also extend your practical skills within the life sciences.</p> <p>You will develop the key practical skills associated with this module as part of an intensive practical week.</p> <p>In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques.</p>
	<p>Fundamentals of Physics Core module - (0 Credits)</p> <p>During this module, you will be introduced to the basic concepts underpinning physics. You will develop an understanding of how physical laws are used to describe natural phenomena and how they may be applied to gain a deeper knowledge of particular systems and processes. This module prepares you for further study in more advanced physical and natural science modules.</p>	<p>This core module has changed its name to Introduction to Physical Laws of the Natural World. The module content remains unchanged.</p>
	<p>Advancing Chemistry Core module - (0 Credits)</p> <p>Building on knowledge gained in Introduction to Chemistry, you will explore different fields within the subject of chemistry (physical chemistry, organic chemistry, biochemistry and environmental chemistry), as well as further develop your laboratory skills.</p>	<p>You will develop the key practical skills associated with this module as part of an intensive practical week.</p> <p>In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques.</p>
Core year 1		
	<p>Introduction to Biochemistry and Biological Chemistry Core module - (40 Credits)</p> <p>You'll study the basic concepts and chemical foundations of biochemistry and cell biology</p>	<p>No Change</p>

	to develop your understanding of structure and function at the molecular level. This module prepares you for further study in more advanced topics in biochemistry and biological chemistry.	
	<p>Introduction to Physical Chemistry and Thermodynamics Core module - (20 Credits)</p> <p>You'll develop an understanding of basic chemical kinetics, quantum mechanics and thermodynamics, to help you identify whether a chemical reaction is likely to occur or not and its rate.</p>	No Change
	<p>General Chemistry Core module - (20 Credits)</p> <p>You'll develop your capabilities in fundamental chemistry theory and practice. You will also develop knowledge in physical, inorganic and organic chemistry, as well as developing further key laboratory skills.</p>	<p>You will develop the key practical skills associated with this module as part of an intensive practical week.</p> <p>In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques.</p>
	<p>Fundamental Chemistry Theory and Practical Core module - (20 Credits)</p> <p>In this module, you'll explore key chemical concepts such as atomic structure, chemical nomenclature, bonding, stoichiometry, acid-base reactions, redox reactions and introduction to organic chemistry. You'll also develop basic chemistry laboratory skills through a significant amount of practical work.</p>	<p>You will develop the key practical skills associated with this module as part of an intensive practical week.</p> <p>In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques.</p>
	<p>Mathematics and Computing Core module - (20 Credits)</p> <p>This module is designed to provide you with the mathematics knowledge and skills related to the chemical and biological sciences, as well as helping you to develop the techniques necessary to handle quantitative data analysis. You'll learn about the powerful statistical programming language, R, which is critical to current approaches to handling/analysing data. This</p>	No Change

	module will enable you to become comfortable with the console-based software and to use it for statistical and data display needs.	
Optional year 1		
	N/A	No Change
Core year 2		
	<p>Topics in Biochemistry and Biological Chemistry Core module - (40 Credits)</p> <p>You'll explore in greater detail key biochemical and cellular processes, such as signal transduction pathways and secondary metabolism. The project-based format of this module encourages teamwork, group problem solving and the development of your professional skills and attributes.</p>	<p>Sessions are planned to be delivered as flipped learning with directed pre-study and online interactive workshops.</p> <p>You will develop the key practical skills associated with this module as part of an intensive practical week.</p> <p>In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques.</p> <p>If we are unable to meet face-to-face, then teamwork or group work-based projects will be run online using appropriate conference/meeting software and file sharing.</p>
	<p>Inorganic and Organic Chemistry Core module - (20 Credits)</p> <p>You will examine both main group and transition metal chemistry, as well as the synthesis, structure and reactive mechanisms found in carbon-based compounds.</p>	No Change
	<p>Enzymology and Kinetics Core module - (20 Credits)</p> <p>In this module, you'll explore enzymes and enzyme function, inhibition and regulation in detail. Topics include reaction steady state, enzyme inhibition, auto-association, allosteric regulation and the application of enzymes in an industrial setting.</p>	No Change
	<p>Analytical Chemistry Core module - (20 Credits)</p> <p>You'll learn the up-to-date techniques used</p>	You will develop the key practical skills associated with this module as part of an intensive practical week.

	to identify and understand physical and chemical properties of matter. Analytical techniques covered will include gas chromatography, high performance liquid chromatography, nuclear magnetic resonance, atomic absorption/emission spectroscopy and ion chromatography.	In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques.
Optional year 2		
	<p>Molecular Biology Optional module - (20 Credits)</p> <p>In this module, you'll build on the fundamental knowledge you developed in earlier modules, and you'll gain an in-depth perspective of the theory, practical and commercial applications of molecular biology. You'll develop a range of fundamental molecular biology techniques which are not only essential for studying bio-molecules within a laboratory research setting, but also highly desirable for future employment.</p>	<p>Sessions are planned to be delivered as flipped learning with directed pre-study and online live workshops.</p> <p>You will develop the key practical skills associated with this module as part of an intensive practical week.</p> <p>In the event of future COVID-19 related disruptions preventing the use of the science laboratories, practical sessions may consist of pre-recorded simulations or demonstrations of techniques</p>
	<p>Placement Module Optional module - (20 Credits)</p> <p>This module provides you with the opportunity to develop key skills and experience while working in a commercial environment. You will develop critical reflection skills as you review your own competencies and development requirements.</p>	<p>We hope to be able to run the optional Work Placement module at level 5; however, if we face further COVID-19 disruptions, then it is likely that this module will not run. If this does happen, you will be enrolled upon the optional module Molecular Biology as an alternative. Employability skills have been carefully integrated across the modules within your programme to ensure that you will continue to develop these essential skills.</p>
Core year 3		
	<p>Research Project in Biochemistry and Biological Chemistry Core module - (40 Credits)</p> <p>In this module, you'll have a degree of autonomy in your learning. You'll have the opportunity to pursue in depth a study of a</p>	<p>We hope that you will be able to undertake practical work within our laboratories to generate data for your research project. However, if we face further COVID-19-based disruptions, research projects may use previously</p>

	<p>topic of your own choice or that related to an industrial partner. This will enable you to practice organising your thinking in a scientific context, increase your confidence in your ability to deal with scientific problems and issues, and gain valuable practical experience in modern biochemical research techniques. In particular, you'll be encouraged to take a questioning approach to science and scientific method.</p>	<p>generated research data for subsequent analysis and critique within the project.</p>
	<p>Applied Biological Chemistry Core module - (20 Credits)</p> <p>This module builds on the Analytical Chemistry module. You'll become familiar with up-to-date techniques used to purify and characterise biomolecules (including DNA, lipids, secondary metabolites, proteins, carbohydrates), and you'll gain valuable, hands-on experience.</p>	<p>Sessions are planned to be delivered as flipped learning with directed pre-study and online interactive workshops.</p> <p>Practical sessions may consist of pre-recorded simulations or demonstrations of techniques depending upon laboratory availability and COVID-19 situation.</p>
	<p>Bioinorganic and Metal Coordinate Chemistry Core module - (20 Credits)</p> <p>In this module, you'll investigate the chemistry of transition metals and the use of metal complexes in biology. Topics include transition metal chemistry, chelation and the syntheses of polydentate ligands, the wide-ranging roles of metal-containing proteins in key biological processes, the stabilization of unusual metal oxidation states and the use of metal complexes in medicine.</p>	<p>Sessions are planned to be delivered as flipped learning with directed pre-study and online interactive workshops.</p> <p>Practical sessions may consist of pre-recorded simulations or demonstrations of techniques depending upon laboratory availability and COVID-19 situation.</p>
	<p>Quantitative and Computational Biology Core module - (20 Credits)</p> <p>In this module, you'll develop a systematic understanding of the role of computing in biological research, and you'll build the programming and computational skills needed to design and undertake complex analyses. You'll develop an understanding of how to analyse and investigate bioinformatic questions using various development tools, and how to make results available via differing visualisations. Central to this is building your understanding of and ability to use various industry standard tools and software platforms. You'll develop an integrated</p>	<p>Sessions are planned to be delivered as flipped learning with directed pre-study and online interactive workshops.</p> <p>Computer practical sessions for this module will be online-based. Lectures will be pre-recorded and the theory will be reinforced using interactive online interactive workshops.</p>

	understanding of various bioinformatic development and analysis tools and of how to build these into analysis pipelines.	
	<p>Biotechnology for Drug Discovery Core module - (20 Credits)</p> <p>In this module, you'll investigate the biological and bio-engineering principles underlying the development, synthesis, production and purification of bio-molecules as therapeutics. Topics covered will range from biological considerations affecting the eventual product (such as post-translational processing and secretion), to host expression choice, in vitro cultivation, bioreactor design and control, protein recovery and purification and determination of final yield and costs. You'll participate in practical sessions that will illustrate key steps within the production and purification process.</p>	<p>Sessions are planned to be delivered as flipped learning with directed pre-study and online interactive workshops.</p> <p>Practical sessions may consist of pre-recorded simulations or demonstrations of techniques depending upon laboratory availability and COVID-19 situation.</p>
Optional year 3		
	N/A	No Change

How you'll learn		
Teaching	<p>You'll be taught by experienced staff who are actively engaged with industry and you'll also be working alongside and learning from industry experts.</p> <p>The course focuses on problem-based learning and uses approaches based on the Conceive, Design, Implement and Operate (CDIO) model of education. You'll experience plenty of hands on work with real projects and the practical experimentation and problem-based learning approaches are supplemented by lectures and seminars/workshops. In addition, you will have regular meetings with your academic personal tutor.</p> <p>All courses are informed by the University's Learning and Teaching Strategy 2015-2022.</p>	<p>Throughout your programme, there remains a focus on the development of practical skills, project work and problem-solving skills. We will use a "blended learning" approach to your studies that consists of a mix of timetabled face-to-face sessions and intensive practical weeks on campus, together with timetabled interactive workshops online. This will involve "flipped learning" approach, which means that it is essential that you read material, watch video content or undertake tasks in preparation for a session.</p> <p>The practical component at levels 0, 4 and 5 will be condensed into intensive practical weeks rather than being spread across semesters to minimise your time on campus due to the COVID-19 situation.</p> <p>We hope to be able to run practical sessions but in the event of further disruption practical sessions may consist of pre-recorded simulations or demonstrations of techniques.</p>
Independent study	<p>This course is designed to help you develop as a confident, independent learner and much of your learning will be through experimentation and observation.</p> <p>When not attending lectures, seminars, workshops or other timetabled sessions you will continue learning through self-study. Typically, this involves reading journal articles and books, undertaking research in the library, working on projects, and preparing for coursework assignments/examinations, workshops and seminars.</p> <p>For the research project in your final year, you will undertake independent research</p>	No Change

	working under the supervision of a member of the course team, who you will meet with regularly.	
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<p>Overall workload</p>	<p>Each 20 credit module requires 200 hours of study consisting of formal contact time (lectures, practicals, tutorials, workshops), structured independent learning (prescribed reading and/or online exercises) and independent learning.</p> <p>In Year 1, each module has 60 hours of formal contact, supplemented with 40 hours of structured independent learning. As you develop and become more independent, formal contact and structured learning reduces to 50 hours of contact and 30 hours of structured independent learning in Year 2 and 40 hours of contact and 20 hours of structured independent learning in Year 3.</p>	<p>Each 20 credit module requires 200 hours of study but the proportion of delivery methods will be more varied as you progress through your programme. At Level 0 and at Level 4, we plan that each module will have timetabled face-to-face contact on campus supplemented by structured online independent learning. You will also receive an intensive week of practical laboratory sessions in each semester to give you the essential laboratory skills relevant to your modules.</p> <p>At Level 5, your sessions will be delivered as a blended learning mix of on-campus face-to-face sessions and online interactive class workshops. We will employ a “flipped learning” approach where we will expect you to prepare for the online class workshops by undertaking the directed study beforehand. You will also receive an intensive week of practical laboratory sessions each semester to give you the essential laboratory skills relevant to your modules.</p> <p>At level 6 all taught module material will be delivered online using the “flipped learning” approach. In addition, your Research Project module will have timetabled laboratory hours in each semester to enable you to carry out your research.</p>
<p>Academic input</p>	<p>The teaching team consists of highly qualified academics with a range of expertise and experience.</p> <p>All our team members hold doctoral and teaching qualifications and are research-active.</p> <p>You will be taught by staff at all academic levels including lecturer, senior lecturer, principal lecturer and professorial level. They have experience in delivering research-informed teaching. You can find out more about the current teaching on our</p>	<p>No Change</p>

	<p>Our Staff web page.</p> <p>Postgraduate students sometimes assist in teaching and assessing some modules, however, experienced academics teach the vast majority of lectures and seminars.</p> <p>You should note that members of the teaching team might change.</p>	
How you'll be assessed		
	<p>Assessment is by both coursework and examination, both written and practical. Individual modules are assessed either solely by coursework or by an equally-weighted combination of coursework and examination.</p> <p>Examination allows assessment of your understanding of important key concepts and accounts for less than half the assessment of the programme.</p> <p>Examinations may take the form of written examinations or practical examinations that assess laboratory skills. Coursework assessments develop key scientific and transferable skills and assignments include: scientific lab/logbooks, written reports, written scientific papers, discursive essays, PowerPoint presentations and poster presentations.</p> <p>There are a maximum of two assessments per 20 credit module studied. Exams happen twice a year at the end of each semester.</p>	<p>Please note that depending upon possible future disruption, examinations may take the form of take-home online examinations.</p>
Fees		
UK/EU	Full-time - Foundation Year 0 £7,050	No Change
	Full-time - years 1-3 * £9,250	No Change
	Part-time £4,625	No Change
Overseas	Full-time - Foundation Year 0 £9,910	No Change
	Full-time - years 1-3 * £13,000	No Change
	Part-time N/A	No Change
<p>* The tuition fees of £9,250 / £13,000 / £4,625 relate to 2020/21 only. Please read the 2020/21 Tuition Fee Statement for further information regarding 2020/21 tuition fees and year on year fee increases.</p>		

Course specific costs		
	N/A	
Professional accreditation	N/A	No Change
Industry links	<p>The University's Industry Liaison Lab works with many companies in healthcare research and development, drug discovery and equipment design and manufacture.</p> <p><i>"Venomtech have been very impressed with our partners at Canterbury Christ Church University, this partnership has enabled us to progress projects much faster than we could on our own. This includes being able to generate novel data on the use of our products through student projects, advancing research into new antibiotics and cancer therapies from venoms and increasing the understanding of invertebrate welfare. Generation of this proof of concept data has, and continues to have, a positive influence with our potential customers and therefore our business. I also impart my 10+ years industrial drug discovery experience directly to the students as part of the Drug Discovery and Development module.</i></p> <p><i>As a science employer in the area, Venomtech benefit greatly from being directly involved in the curriculum to make sure the new graduates have the skills useful to employers. This includes an understanding of applied drug discovery that will make CCCU graduates stand out from others in job interviews."</i></p> <p>Steve Trim, CEO, Venomtech Ltd</p>	No Change
Other important information		
Specialist Facilities	<p>This course is associated with the university's Industry Liaison Labs at Discovery Park, Sandwich. You will have the opportunity to undertake laboratory work at this site. The location of these specialist facilities within an industrial setting facilitates access to and collaboration with biotechnology and pharmaceutical companies.</p>	<p>Your studies will not depend upon the access to Industry Liaison Laboratory. In the case of future disruption, use of any of the University's science laboratories will be sufficient for the completion of your studies.</p>
Date of	29/6/2020	

