

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	Ecology	
Award level	BSc - Single honours only	
How do you want to study?		
Start Date	Sept 2020	
Modes of study	Full-time Part-time	
Duration	3 years full-time 6 years part-time	
UCAS code	C180	
Location	Canterbury	
Partner institution	N/A	
Available with a Foundation Year	Yes	
Overview		
	<p>Kent, the “Garden of England” is rich with plant and animal diversity. The course combines applied modules designed to increase practical skills with modules giving you vital background theory.</p> <p>We want to enable you to work as a thinking, flexible, modern ecologist, giving you the practical in-the-field experience needed to help you succeed.</p> <p>The course will help you develop your own research throughout your studies and network with potential employers. Close links to environmental organisations including Natural England, the Environment Agency and Kent Wildlife Trust, give you the chance to work with employers in the field.</p> <p>You will also have 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>There will still be a focus on the development on practical skills in the laboratory but opportunities to work with employers will depend upon the current COVID-19 situation.</p> <p>Please note that the running of the optional ‘Added Value’ programmes will depend upon the situation with COVID-19.</p>
Why study Ecology?		
	With the challenges we face from climate change and the impact it is having on	The practical week will be supported by supplementary online demonstrations

	<p>biodiversity, there has never been a more important time to study ecology. This fascinating subject is concerned with the relationships organisms have with their living and non living environment. From animals and plants to fungi, microbes and bacteria, ecology enriches our world and it is crucial for our wellbeing and prosperity.</p> <p>On this course, you'll delve deeply into the diversity of life, exploring important aspects of ecology, population genetics, the ecology of animal behaviour and other biological disciplines. You'll learn how they relate to geology and landscape as well as local and global ecosystems.</p> <p>You'll gain practical skills working in the labs, where you can apply theory to scientific challenges, and you'll have good opportunities to get involved in research through the University's Ecology Research Group (ERG). You'll be able to collaborate with lecturers on their research and tackle issues facing ecologists. The ERG has close links with environmental organisations, including Natural England, the Environment Agency and Kent Wildlife Trust, so you'll have opportunities to network and speak with professionals about employment and career advice. You can even apply for Associate membership of the ERG, subject to completion of a set programme of research training.</p> <p>During the foundation year, you'll you'll learn essential study skills that you'll need as you progress through the degree. You'll also learn the fundamentals of chemistry, biology, physics and maths, so that you are prepared to study science in depth from Year 1 onward.</p> <p>As you progress through the course, you'll have the opportunity to hone your skills in conducting independent research, analysing data statistically and presenting them effectively in writing and in oral presentations.</p> <p>By the end of the course, you will be</p>	<p>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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	equipped to work as a thinking, flexible, modern ecologist ready to face and solve scientific challenges.	
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Entry requirements	For entry to the three-year full-time course (6 year part-time) candidates usually require between 88-112 UCAS tariff points. Of which 32 UCAS tariff points or equivalent (e.g. A level grade C or BTEC Subsidiary Diploma grade Merit) are in a science subject for example biology, chemistry.	
About the course		
	<p>Throughout the course, you'll study topics relating to how living things interact with each other and their environment (their ecology), how these interactions are shaped and determined by local and global environmental factors and how this affects our efforts to preserve and protect species of conservation interest.</p> <p>You'll learn practical skills in the field and in the laboratory, enabling you to effectively survey, identify and assess environments and the organisms living within them.</p> <p>In Year 1, you'll learn about core aspects of ecology, genetics and evolution and you'll develop your statistics and science skills.</p> <p>In Years 2 and 3, you'll study ecology in more depth, gaining specialist skills and knowledge. You'll have the opportunity to undertake a work placement, giving you valuable experience working with ecology experts.</p> <p>In Year 3, you'll undertake a project researching a commercially/socially relevant issue in the field of ecology. You'll identify an area of interest directly linked to ecology and you'll design and undertake appropriate field-based experiments. This will involve a minimum of 10 days field work.</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>		
Core year 1		
	Diversity of Life Core module - (20 Credits)	The practical sessions associated with this module are part of an intensive practical week.

	<p>Life on earth is amazingly diverse, colourful and multifaceted. This module introduces you to this variety, tracing the tree of life from its roots to its branches. Beginning with simple, single-celled organisms like bacteria and protists, you'll discover the various forms of complex life that have evolved and how to classify them in a taxonomic system using characteristic features of each group. The module features a large number of practical sessions in which you'll engage with plants, animals and other organisms.</p>	<p>The practical week 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>
	<p>Genetics and Evolution Core module - (20 Credits)</p> <p>You will learn about key concepts in genetics and evolutionary biology, providing you with a broad knowledge of Mendelian genetics and the mechanism of evolution. You will undertake a number of practicals in cell biology and DNA methods and will utilise bioinformatics to access, evaluate and interpret genetic and phylogenetic data.</p>	<p>The practical sessions associated with this module are part of an intensive practical week.</p> <p>The practical week 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>
	<p>Introduction to Ecology Core module - (20 Credits)</p> <p>You'll develop your field skills and learn a range of ecological sampling methods while looking at different ecosystems.</p>	<p>The practical sessions associated with this module are part of an intensive practical week.</p> <p>The practical week 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>
	<p>Science Skills and Introduction to Statistics Core module - (20 Credits)</p> <p>You will develop the necessary background in science communication, skills and methods essential for a degree in life sciences. You will learn how to analyse quantitative biological data, including statistics and experiment design and how to understand scientific publications and write scientific papers.</p>	
	<p>Soil Science and Plant Nutrition</p>	<p>The practical sessions associated with</p>

	<p>Core module - (20 Credits)</p> <p>You'll learn about the basic concepts of soil science, focusing on the physical properties of soil, the fundamentals of soil chemistry and hydrology, and the way in which soils and plants are inextricably interlinked.</p>	<p>this module are part of an intensive practical week.</p> <p>The practical week 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>
	<p>Biochemistry Core module - (20 Credits)</p> <p>The aim of this module is to introduce the basic concepts and chemical foundations of biochemistry and cell biology to develop an understanding of structure and function at the molecular level. This module prepares students for further study in more advanced cell and molecular modules.</p>	<p>The practical sessions associated with this module are part of an intensive practical week.</p> <p>The practical week 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>
Optional year 1		
	N/A	
Core year 2		
	<p>Animal Behavioural Ecology Core module - (20 Credits)</p> <p>In this module, you'll learn about the ecological side of animal behaviour. You'll explore the main influences on behaviour and how these can affect animal behaviour at an individual, group and species level.</p>	
	<p>Chemistry of the Environment Core module - (20 Credits)</p> <p>You'll develop an understanding of the fundamental theoretical concepts and practical applications of environmental chemistry in aquatic, terrestrial and atmospheric environments. You'll learn about some of the chemical analytical methods that can be used in the monitoring of these environments and you'll address issues of environmental pollution.</p>	
	Data Handling	

	<p>Core module - (20 Credits)</p> <p>In this module, you'll develop the techniques necessary to handle quantitative biological data analysis and you'll start to explore bioinformatics. You will be introduced to the powerful statistical programming language, R, which is critical to current approaches to handling/analysing data, particularly "big data".</p>	
	<p>Plants in the Environment Core module - (20 Credits)</p> <p>In this module, you'll consider how plants differ in space and time, and how plant communities are managed. You'll have the opportunity to study natural and agricultural systems in the field during a five-day field trip. The strong fieldwork element is designed to enhance your practical skills for use throughout the course and beyond.</p>	<p>This could be an online field trip depending on the COVID-19 situation in 2021.</p>
Optional year 2		
	<p>Animal Pests and Diseases Optional module - (20 Credits)</p> <p>In this module, you'll study pests, parasites and pathogens which affect animals, and how they affect the wider world. You'll learn about the taxonomy and biology of these organisms, the economic impacts they have on societies around the world, and the ways in which animals have evolved to fight infection and infestation. You will then discuss and comment on the mechanisms by which humans have attempted to control pests, parasites and pathogens such as the use of antibiotics, pesticides, vaccination and biological control.</p>	
	<p>Plant Pests and Pathogens Optional module - (20 Credits)</p> <p>You'll develop knowledge of common important plant pests and diseases, their effects on plant growth and yield, and how to recognise them in the field. You'll also learn how to analyse and interpret published data through student-led discussions about specific pests and diseases and their control.</p>	

	<p>Work Placement 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 be enabled to develop critical reflection skills as you review your own competencies as they expand and diversify.</p>	<p>This optional module may be available depending upon the COVID-19 situation in 2021.</p>
Core year 3		
	<p>Conservation Biology Core module - (20 Credits)</p> <p>In this module, you'll further develop and deepen your understanding of ecology and its utility as an aid to plant and animal conservation. You'll study the issues, techniques and legislation concerned with conserving plant and animal species.</p>	
	<p>Current Science Issues Core module - (20 Credits)</p> <p>In this module, you will develop a wider understanding of how science influences and affects society. You will develop your independent research and analysis skills as you comment on important science issues. The weekly section research / visiting speaker lecture will be used as a base to discuss topics.</p>	
	<p>Honours Project Core module - (40 Credits)</p> <p>In this module, you'll undertake a piece of commercially/socially relevant research in the field of ecology. You'll identify an area of research directly relevant to the field of ecology and you'll design and undertake appropriate field-based experiments evidencing a minimum of 10 days field work. You'll gain experience of carrying out independent research and analysis, and you'll presenting your findings in two styles: a written scientific paper and a presented poster to a non-specialist audience.</p>	
	<p>Molecular Ecology Core module - (20 Credits)</p> <p>The aim of this module is to develop a conceptual and systematic understanding of</p>	

	<p>molecular ecology as a multidisciplinary research area, as well as its applications, bringing together concepts and techniques from molecular biology, genetics/genomics, population and evolutionary genetics, behavioural ecology, conservation biology, taxonomy and systematics.</p>	
Optional year 3		
	<p>Animal Health and Husbandry Optional module - (20 Credits)</p> <p>The aims of the module are to explore the importance of animals in society and the scientific background to animal welfare issues. This includes the study and analysis of nutrition, good husbandry, disease control, pain perception, the ability of animals to cope with their environments and the physiological and behavioural aspects of welfare.</p>	
	<p>Animal Reproduction and Development Optional module - (20 Credits)</p> <p>In this module, you'll examine the genetic and endocrine control of reproductive behaviour and other aspects of reproduction, embryological growth and subsequent ontogeny of selected vertebrates and invertebrates. You'll develop an understanding of how the processes underpinning animal reproduction and development function have evolved.</p>	

How you'll learn

<p>Teaching</p>	<p>You will be taught through a combination of lectures, laboratory practicals, field trips, visits to employers, seminars, guest speaker lectures and practical workshops. You'll also benefit from tutorial sessions where you can discuss your work and progress with an individual personal tutor, and small group seminars focusing on specific topics.</p> <p>The course is designed to support you in becoming a confident, independent learner and some of your learning will be through experimentation and observation.</p> <p>In the first year, two thirds of each module are delivered as practical experimentation either in laboratories, IT labs or in the field. These sessions are supplemented by lectures, and seminars/workshops where you feedback from your structured independent study.</p> <p>In the second year, you'll continue laboratory and field based experimentation and you'll start analysing published research.</p> <p>In the final year the teaching will move into student-led workshops where you'll discuss published research papers</p> <p>All teaching material is posted on the virtual learning environment.</p> <p>Your actual contact hours depend on the option modules you select.</p> <p>All courses are informed by the University's Learning and Teaching Strategy 2015-2022.</p>	<p>The practical component will be condensed into an intensive practical week rather than being spread across the semester and so minimise your time on campus due to the COVID-19 situation.</p> <p>We will use a "blended learning" approach in 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 week 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>
<p>Independent study</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. Your module director will direct you towards specific readings and/or activities to complete before class through</p>	

	<p>the virtual learning environment.</p> <p>For the 40 credit individual study in your final year, you will undertake independent research working under the supervision of a member of the teaching team who you will meet with regularly.</p>	
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Overall workload	<p>Each 20 credit module requires 200 hours of study which includes formal contact (lectures, practicals, tutorials, workshops), structured independent learning (prescribed reading and/or online exercises) and independent learning.</p> <p>Each module in the foundation year and Year 1 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 per module in Year 2 and 40 hours of contact and 20 hours of structured independent learning per module in Year 3.</p>	<p>Each 20 credit module requires 200 hours of study but the proportion and delivery methods will be more varied. At Level 4, each module will have 48 hours of face-to-face contact supplemented by structured independent learning. You will also receive an intensive week (30 hours) 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. You will have 9 hours of face-to-face sessions on campus dedicated to your programme with 9 hours of interactive online 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 (30 hours) of practical laboratory sessions each semester to give you the essential laboratory skills relevant to your modules.</p> <p>At level 6 substantial elements of programme delivery will be interactive online delivery using the “flipped learning” approach. Each programme has a 3-hour programme specific session with each module consisting of 12 hours of online interactive workshops. In addition, your Honours Project module will have 96 hours timetabled in each semester to enable you to carry out your research.</p>
Academic input	The team consists of highly qualified academics with a range of expertise and experience. They are research-active and have experience in delivering research-	

	<p>informed teaching.</p> <p>All our core team members hold doctoral qualifications and most hold or are working toward postgraduate teaching qualifications. You can find out more about the current teaching on our Meet the Team 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>	
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How you'll be assessed

	<p>Assessment is by both coursework and examination. The course provides you with opportunities to test your understanding of the subject informally before you complete the formal assessments that count towards your final mark. Each year you will be set formative assignments to go through with your tutor. There will also be 'formative' assessment within some of the modules. Practice assessments are developmental and any grades you receive for them do not count towards your module mark.</p> <p>There are also formal or 'summative' assessments. Assessment methods include written examinations and a range of coursework assessments such as essays, reports, portfolios, performance, presentations and your final year individual study project. The grades from formal assessments count towards your module mark.</p> <p>Coursework assessments permit you to develop key scientific and transferable skills and assignments include: scientific lab/log books, written reports, written scientific papers, discursive essays, PowerPoint presentations and poster presentations. There is a maximum of two assessments per 20 credit module studied.</p> <p>Feedback 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. We aim to provide you with feedback within 15 working days of hand-in.</p>	<p>Examinations may take the form of take-home online examinations.</p>
Year 1	60% coursework 40% written exams	
Year 2	50% coursework 50% written exams	
Year 3	65% coursework 35% written exams	
Fees		

UK/EU	Full-time £9,250	
	Full-time - placement year £1,850	
	Part-time £4,625	
Overseas	Full-time £13,000	
	Full-time - placement year N/A	
	Part-time N/A	

Course specific costs		
	N/A	
Professional accreditation	N/A	
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>	
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>	
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