Animal Science

Discover it

Research it

nottingham.ac.uk/biosciences
Undergraduate guide 2019
I chose to study Animal Science, because the modules taught are very diverse. Like many people I don’t yet know what career path I want to follow, which is why this degree is perfect! I like studying at Sutton Bonington, the campus has a great atmosphere, near to the countryside but also very accessible to the rest of the university.

Darcie Stott, BSc Animal Science
Discover animal science at Nottingham

Ranked 1st for our animal science course in The Complete University Guide 2019, our course offers a unique opportunity to develop your scientific understanding of fundamental and applied animal biology, with a broad spectrum of modules to specialise in your areas of interest.

Teaching and research
You will be taught by subject specialists who are active researchers in the most rapidly developing areas of animal science, incorporating the latest research into their teaching. Many of our academic staff are also expert advisors to government institutions, industry, and other national and international bodies.

Industry connections
Nottingham is taking the national lead for dairy research as the Centre for Dairy Science Innovation. This has led to considerable investment and expansion in our dairy centre to support world-leading research in livestock health and production to deliver improved food security and farming sustainability.

You will benefit from our extensive industrial and institutional research links, including our collaborative work with companies such as the global agri-food businesses AB Agri and Cargill. You will also have visits and guest lectures from our connections with such organizations, which have previously included The Stabiliser™ Cattle Company, AHDB, a levy board funded by UK farmers and PDSA, a UK veterinary charity.

Inspiring Tutors

Dr. Ramiro Alberio, Associate Professor in Developmental Epigenetics

Dr Alberio’s group investigates the cellular mechanisms that determine the formation of different cells (such as gut, muscle or nervous system) in an animal. He uses animal embryos to study how these decisions are made early in development and models the findings in embryos with in vitro tools, such as embryonic stem cells, to dissect what genes are important for directing cell fate. This research teaches us about the general principles of developmental biology, but it also has important applications for regenerative medicine. Understanding how cells form and arrange themselves in an embryo can be used to generate cells in a laboratory that can be used for transplantation or for disease modelling.

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Our courses

<table>
<thead>
<tr>
<th>Degree title</th>
<th>UCAS code</th>
<th>Duration</th>
<th>A levels</th>
<th>IB</th>
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<tbody>
<tr>
<td>BSc Animal Science</td>
<td>D320</td>
<td>3 years</td>
<td>ABB-BBB</td>
<td>32-30</td>
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* Including two science-based subjects (biology and chemistry preferred, but can include physics, maths, psychology and geography. Citizenship studies, critical thinking, general studies and leisure studies are not accepted. We may also consider ABC depending on predicted grades in specific subjects.

Foundation courses
Applicants who are not eligible for direct entry to undergraduate study may be able to apply for a foundation course. Find out more at nottingham.ac.uk/foundationcourses

English language requirements
IELTS 6.0 (no less than 5.5 in any element).
For details of other English language tests and qualifications we accept, please see nottingham.ac.uk/go/alternativerequirements

Academic English preparation
If you require additional support to take your language skills to the required level, you may be able to attend a presessional course at the Centre for English Language Education, which is accredited by the British Council for the teaching of English in the UK.

Students who successfully complete the presessional course to the required level can progress onto their chosen degree course without retaking IELTS or equivalent. Find out more at nottingham.ac.uk/cele

Studying animal science at the University of Nottingham has been wonderful! The course has a great mixture of practical and theory work that covers a wide range of topics, from micronutrition to physiology of tissues. The staff are also so enthusiastic about their subjects that it rubs off on you too, which creates a great learning environment for everyone. This has been enhanced further by the excellent on-campus facilities, such as the robotic dairy farm, that have given me opportunities I would never have had otherwise.

Flo Jenkins, BSc Animal Science

nottingham.ac.uk/ugstudy/biosciences
BSc Animal Science

Studying animal science at Nottingham gives you a scientific understanding of applied animal biology, and the flexibility to choose areas of interest to meet your career aspirations.

Animal science is very important for improving the productivity of animals and wellbeing of companion species while supporting their health and welfare. This requires well-trained and adaptable scientists who can apply their knowledge and understanding. Interactions between animal scientists and the pharmaceutical and biotechnology industries continue to develop further, and links to human nutrition, biomedical science and physiology are advancing.

Field trips and visits to relevant research organisations are also an integral part of the degree. The final year research project is a major strength of the course and we offer a wide range of projects working in close collaboration with animals and/or undertaking laboratory procedures, or involving the in-depth study of scientific literature in an area of your interest.

The course offers a broad curriculum covering the following disciplines:
- Animal physiology and reproduction
- Biochemistry and nutrition
- Developmental biology
- Bioethics and animal welfare

Years one and two
During year one, you will follow a broad base of modules in the animal sciences. In year two, depending on your interests and future career aspirations, you will choose to study either the Physiology and Health pathway or the Production and Nutrition pathway.

Year three
In year three you will carry out a major research project in a supervised environment. Our academics are at the forefront of research on reproduction, development, growth and health of domestic animals. You may work in close collaboration with animals (livestock, companion, or other species) and/or laboratory procedures to study animal physiology, biochemistry or biology at the cellular, tissue, or whole animal levels.

Year in computer science
You can combine this degree with an extra fourth year (between years two and three) in the University’s School of Computer Science. This year is designed to provide you with training in software development and computing skills relevant to your final year research project and to your future career. You will be able to transfer into this programme from your BSc course (subject to progression criteria).

Study abroad and Industry placement
You have the opportunity of taking a year in industry between years two and three of your degree, extending your degree to a four year programme. In addition, you can apply to study abroad for a semester at one of our international partner universities; study abroad for an additional year; or take part in a summer school overseas.

nottingham.ac.uk/ugstudy/biosciences

Modules may change, for example due to curriculum developments. The above list is a sample of typical modules that we offer, not a definitive list. The most up to date information can be found on our website at nottingham.ac.uk/ugstudy/biosciences

| Typical modules |
|-----------------|-----------------|-----------------|
| **Year one**    | **Year two**    | **Year three**  |
| Core            | Core Physiology and Health pathway | Core Physiology and Health pathway |
| - Animal Biology | - Endocrine Control Systems | - Coordinated Physiological Functions |
| - Biochemistry - The Building Blocks of Life | - Physiology of Electrically Excitable Tissues | - Reproduction and Fertility |
| - Biosciences Tutorials (Academic Development) and Foundation Science | - Principles of Animal Health and Disease One | - Research Project |
| - Genes and Cells One | - Professional Skills for Bioscientists | - Systems Neurophysiology |
| - Applied Genetics | - Reproductive Physiology | Core Production and Nutrition pathway |
| - Introduction to Nutrition | Core Production and Nutrition pathway | - Animal Nutrition |
| - Introductory Physiology | - Applied Animal Science | - Livestock Production Science |
| - The Biosciences and Global Food Security | - Endocrine Control Systems | - Research Project |
| Optional         | Optional         | Optional         |
| - Animal Behaviour | - Endocrine Control Systems | - Applied Bioethics One and Two |
| - Economic Analysis for Agricultural and Environmental Sciences | - Professional Skills for Bioscientists | - Coordinated Physiological Functions |
| - Physiology of Electrically Excitable Tissues | - Reproductive Physiology | - Companion Animal Science |
| - Principles of Animal Nutrition | Optional         | - Epigenetics and Development |
| - Principles of Immunology | - Applied Agricultural and Food Marketing | - Management Consultancy |
|                                    | - Animal Behaviour | - Molecular Nutrition |
|                                    | - Applied Animal Science | - Principles of Animal Health and Disease Two |
|                                    | - Economic Analysis for Agricultural and Environmental Sciences | - Reproduction and Fertility |
|                                    | - Physiology of Electrically Excitable Tissues | - Rural Business Management |
|                                    | - Principles of Animal Nutrition | - Systems Neurophysiology |
|                                    | - Principles of Immunology | |
Study abroad

Animal science is a global subject and studying at one of our highly ranked university partners abroad will give you the unique opportunity to see your degree from a different perspective.

Studying abroad takes you out of your comfort zone, helping you to develop valuable skills, such as independence and resilience, which are attractive to future employers. The School of Biosciences offers a range of study abroad opportunities.

**University-wide exchange programme**

Our exchange programme gives you the opportunity to apply to study abroad for the first semester of year two. Successful candidates will study at one of our partner universities, in France or Spain for example. You can transfer to this four-year route in your first semester of study.

**Finance**

Studying abroad need not be any more expensive than studying in Nottingham if you budget your finances well and take advantage of available funding. The University offers a number of bursaries and scholarships to students studying abroad.

All students who participate in one of the University’s exchange programmes pay a reduced tuition fee to the University of Nottingham during the academic year when they study abroad. No tuition fees are paid to the host university.

It was a daunting and challenging prospect moving to a country with a different language and culture. This took me out of my comfort zone, which made it more exciting and rewarding. I now have a great addition to my CV and made lifelong friends from all over the world with amazing memories in the process.

Charis Jones, BSc Animal Science
Studied abroad at ESA in Angers, France
Industry placement

During the year in industry you can put your learning into practice, giving you a better understanding of your studies and the chance to solidify your knowledge in an industry setting.

This industry placement allows you to develop a range of skills and enhance your employment prospects, while, in the majority of cases, being paid a salary.

The year’s work experience, which can be in the UK or abroad, can significantly improve your employment prospects. Many students secure a graduate job as a direct result of their placement year.

You are treated by your host company just the same as any other employee, being given real responsibility and the opportunity to work independently in a professional setting. You can gain experience of how to communicate with people from a range of backgrounds, work to tight deadlines, manage multiple projects and deal with conflicting priorities. It’s a unique opportunity for you to learn about what you enjoy doing, your strengths and weaknesses, and the kind of environment you like working in, which will put you in a strong position when considering your future career.

The school has excellent links with a wide range of businesses and research institutes. The dedicated School Placement Team works with you in partnership to help you search, apply for and secure a placement, as well as supporting you throughout your placement. Some examples of relevant companies include: The Waltham Centre for Pet Nutrition, the Centre for Environment, Fisheries and Aquaculture Science, McDonald’s, Chester Zoo, the Game and Wildlife Conservation Trust, Port Lympne Reserve, and AB Agri.

Students who undertake the year in industry have the opportunity to submit a record of their placement in order to become a Registered Scientist with the Science Council – the UK’s professional science body.

I thoroughly enjoyed working with all of the animals, the team and the physical nature of the job. I feel this experience will benefit me greatly in the long run when I finish university and enter the job market.

Sam Weatherall, BSc Animal Science
Undertook a year’s placement at Chester Zoo

Engaging study, incredible results

At the School of Biosciences you will experience an integrated range of teaching and learning styles, from traditional lectures, practicals, small-group discussions and tutorials to contemporary online systems.

Modules
Modules are self-contained units of study that usually run for one semester but some are year-long. All our undergraduate programmes are modular with assessment at the end of each module. Although some modules are core, you can choose from a range of other optional modules. Depending on your timetable you may also be able to take modules from other schools across the University.

Your research project
One of the strengths of all our degrees is the final year research project module. This allows you to work on your chosen area, typically supervised by research scientists, and provides the opportunity for you to demonstrate your abilities to future employers. It involves independent study, a literature survey and data handling, analysis and interpretation. The project also develops significant transferable skills, including critical thinking.

Your personal tutor
You will have a personal tutor who is a member of academic staff and will take a close interest in your academic progress and general wellbeing. You will be able to talk to your tutor in confidence about academic and other, more general concerns. They can be a valuable source of information and advice.

How will I be assessed?
Our courses are assessed in a variety of ways, including exams, coursework assignments, a dissertation, computing assignments, essays, oral presentations, posters and laboratory reports. The final degree classification is based on marks gained for the second and subsequent years of study.

nottingham.ac.uk/biosciences/placements
Oustanding careers support

Our animal science degree is highly ranked nationally and is well regarded by a wide range of employers. The unique blend of fundamental science, practical application and insight into social perspectives has enabled graduates to follow a wide variety of careers.

93.1% of undergraduates had secured work or further study within six months of graduation*

£21,597 was the average starting salary of undergraduates in 2016*

Recent graduate destinations
- Further study in biological, biomedical and veterinary sciences
- Pharmaceutical industry
- Animal nutrition/feed industry
- Government advisory roles
- Academic and industrial research
- Agricultural consultancy
- Sales and marketing

My degree at Nottingham provided me with the confidence, skill set and determination to succeed in the working world. I was excited to find a career that allows me to mix brand new exciting science and writing with programme management.

Anna Humber, Programme Executive at Axon Communications

Amplify your potential
Whether you already have a plan or need some inspiration, your Careers and Employability Service is here to help.

Academic excellence and employability go hand in hand at Nottingham. Your course, and the diverse student experiences we offer, will enable you to develop the skills and professional competencies required to thrive in the job market of the future.

We will help you explore your options, so you feel confident making choices about what you want to achieve. Our team will support you as you build your CV, search for jobs, prepare applications, practise your interview technique, and much more.

Get the Advantage
The career-enhancing Nottingham Advantage Award recognises and rewards your extracurricular activities. With a choice of over 200 modules, you can hone the key skills employers are looking for. From developing your leadership skills and learning a language to public speaking and volunteering, you will leave university with demonstrable experience that sets you apart from other graduates. For further information, visit nottingham.ac.uk/careers/advantage

Further study opportunities
Many of our graduates choose to continue their studies and undertake further research to MSc, MRes, MPhil or PhD level at the University of Nottingham or elsewhere. Some of our graduates also go on to study veterinary medicine.

We offer a one-year taught postgraduate MSc Animal Nutrition offering the opportunity to study farm, companion and zoo animal nutrition at an advanced level.

nottingham.ac.uk/careers
How to apply

All applications for undergraduate study at Nottingham, including applications by international students, must be made through UCAS.

You can apply online at ucas.com and will be notified of decisions through UCAS Track.

Your personal statement
This is the section of your UCAS form that tells us most about you, and you should make the best use of it. Be as specific and detailed as you can – we would like to see that you are a student who can work hard, be self-motivated and make the best possible use of the opportunities that our courses offer you. We would also like to hear about any skills you have gained through extracurricular activities.

Minimum entry requirements
Unless otherwise stated in individual course profiles, all UK applicants should have GCSE English grade 4 (C) as a minimum.

Alternative qualifications
In this brochure you will find our A level and International Baccalaureate entry requirements but we accept a much broader range of qualifications. For more details, visit nottingham.ac.uk/ugstudy/applying

Flexible admissions policy
In recognition of our applicants’ varied experience and educational pathways, we employ a flexible admissions policy. If we judge that your situation has adversely affected your achievement, then we will consider this when assessing your academic potential. Some courses may make a slightly lower offer. For more information about this policy, see nottingham.ac.uk/ugstudy/applying

Mature applicants
We encourage applications from mature applicants who have a significant gap in education. You should apply through UCAS. Find out more at nottingham.ac.uk/mature

International applicants
The University provides a range of information and advice for international applicants. If you are unable to attend an open day, we can meet you in your country at one of our overseas events or arrange an individual visit to the University. For further information please visit nottingham.ac.uk/go/international-applicants

Deferred entry
Applicants who wish to defer their entry by a year will not be at a disadvantage. Please tell us something about your plans for your gap year in your UCAS personal statement.

Equal opportunities policy
The University aims to create the conditions whereby students and staff are treated solely on the basis of their merits, abilities and potential, regardless of gender, race, colour, nationality, ethnic or national origin, age, socio-economic background, disability, religious or political beliefs, trade union membership, family circumstances, sexual orientation or other irrelevant distinction.

How do I apply?

Around one-third of our UK students receive our means-tested core bursary, worth up to £2,000 a year (2018 entry figure; subject to change). For details, see nottingham.ac.uk/financialsupport

Experience it

Accommodation to suit every budget and personal choice
nottingham.ac.uk/accommodation

Easy access to the city for music, food and shopping
nottingham.ac.uk/nottinghamlife

Join in with the vibrant musical life on campus and in the city
nottingham.ac.uk/music/performance

Choose from 200+ student-led groups, clubs and societies at your Students’ Union
su.nottingham.ac.uk

One of the UK's leading universities for sport* with over 70 student sports clubs
nottingham.ac.uk/sport

* British Universities and Colleges Sports Standings, 2016-17.