

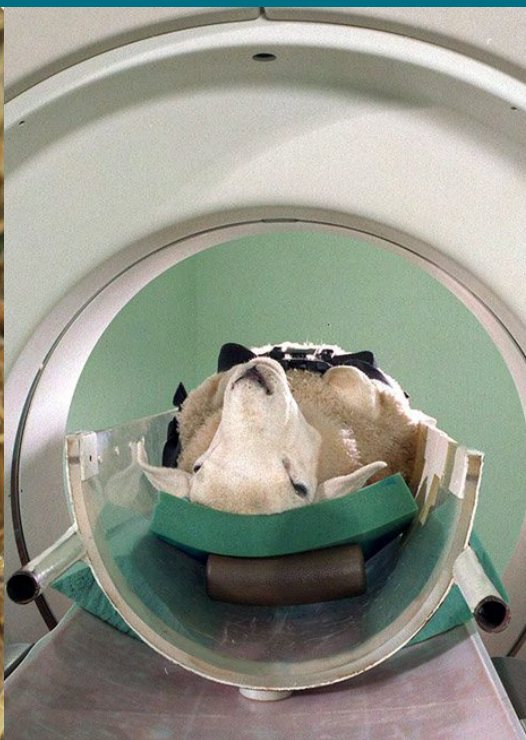


SAC

Scottish Agricultural College



Applied Animal Science



Aberdeen • Ayr • Edinburgh
0800 269 453
www.sac.ac.uk/learning





Applied Animal Science

Course Information

Why study Applied Animal Science?

Animals contribute to human society in many ways. They provide food (milk, meat, eggs) and clothing materials (fibres, leather), perform duties in the workplace, play key roles in some leisure activities and, as pets, provide us with companionship. Today's advances in animal science continue to deliver improvements in livestock health, welfare, and productivity, as well as offering new possibilities such as the production of pharmaceuticals in milk and eggs. This is an exciting time to be studying Applied Animal Science!

This course aims to give you an understanding of animals and how they function, grow, reproduce and behave. It also explores how we can use animals effectively without compromising their health and welfare. There is particular focus on farmed livestock as well as companion animals (e.g. horses) and on the component sciences (including genetics, nutrition, cell biology, behaviour, reproductive physiology, etc.) which are important in understanding animal function and how animals interact with the environments in which we manage them.

SAC... a unique institution

SAC – the Scottish Agricultural College – is Scotland's specialist higher education institution for courses that relate to the existing and emerging land-based industries and pursuits, applied food, plant and animal sciences and sustainable land-use.

SAC offers courses in a wide range of subject areas, all related to how we make use of the land and environment around us: Agriculture, Science, Green Technology, Horticulture, Environment, Conservation, Business, Sport and Tourism courses are on offer at our three campuses in Aberdeen, Ayr and Edinburgh.

SAC offers HNC, HND and degree courses, and our degrees are awarded by the prestigious universities of Glasgow and Edinburgh.

In addition to its role in education, SAC has an innovative and leading research and development programme and runs an international advisory and consultancy service. This all means that as a student at SAC you are taught by a team of staff including lecturers, researchers, advisers and consultants. They will provide up-to-the-minute information and insight into the commercial world beyond the College environment. We believe no other education institution can offer this combination of expertise and experience.

The screenshot shows the SAC Learning website interface. At the top, there is a blue header with 'SAC Learning' on the left and the SAC logo on the right. Below the header, the main content area is titled 'Scotland's land-based Higher Education Institution'. It features several sections with images and text: 'Courses', 'Popular Pages', 'Open Days & Events', 'Regional A Prospectus', 'News & Events', 'Campuses', 'Distance Learning', and 'Training'. Each section includes a brief description and a 'Read More' link. On the left side, there is a vertical navigation menu with categories like 'Home', 'SAC Learning', 'About The College', 'Prospective Students', 'Courses', 'Lifelong Learning', 'Training', 'Parents & Teachers', 'News & Events', 'Course Finder', 'Biography For Schools', and 'Geography For Schools'. At the bottom, there are three columns of links: 'Explore SAC', 'Explore Courses', 'Popular Pages', 'Current Students', 'SAC Learning News', and 'Contact'.

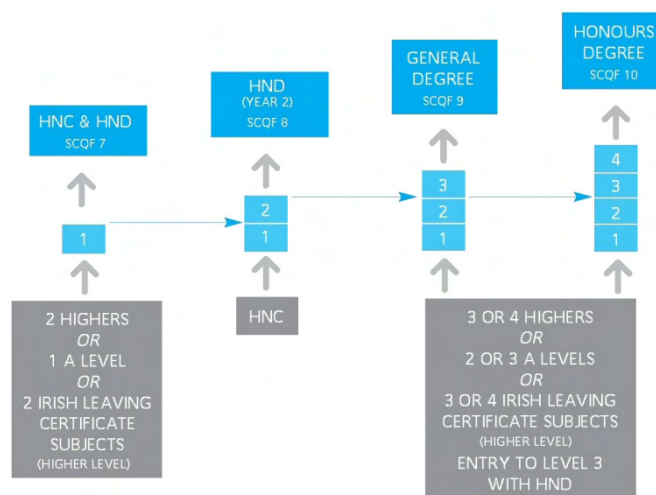
Applied Animal Science: Which Courses Where?

Awards Available:	Campus		
	Aberdeen	Ayr	Edinburgh
BSc/BSc (Hons) Applied Animal Science	x	✓	✓
HND Applied Bioscience	x	✓	x

Qualifications to suit your needs

Our role is to help you achieve your true potential. This is why we have designed many of our courses to allow progression from one academic level to the next, with the possibility of a qualification at the end of each academic year (HNC, HND, degree, or Honours degree).

If, for some reason, you do have to leave before achieving an Honours degree, you needn't leave empty handed. Similarly, you may enrol for the HNC or HND, and as long as your performance is good enough, you can transfer to the degree course without any loss of time or repeated years.



SAC also makes provision for holders of many HNCs or HNDs from elsewhere to transfer to the second or third years, as appropriate, of a suitable HND or degree.

Application Details



Application for full-time study on HNC, HND and degree (BA/BSc) courses is through UCAS (www.ucas.ac.uk). Please consult the SAC web site or prospectus for further details.

Codes for UCAS application are as follows:

- Institution code name: SAC
- Institution code: S01
- BSc /BSc (Hons) Applied Animal Science D300 BSc/AnSci
- HND Applied Bioscience 527D HND/ApB

The BSc / BSc (Hons) Applied Animal Science degree is validated by the University of Glasgow

Methods of delivery and assessment

Laboratory classes develop practical and experimental skills to complement the theoretical aspects of the course, which are delivered using a mixture of lectures, seminars, tutorials and group discussions.

In addition to its own strong research base in animal science, health, welfare and behaviour, SAC has strong links with other research organisations investigating aspects of animal science as well as with commercial land-based industries. Great emphasis is placed on visits to farms and animal science research institutes to show the relevance and applications of the topics studied.

Entry Qualifications

For Applied Animal Science degree entry:

- 3 Highers (BCC) or 2 A-levels at CC to include Biology or Chemistry.
- Applicants with SWAP Access to Science qualifications are also strongly encouraged to apply.

For HND entry:

- 2 Highers (CC) or 1 A-level pass to include Biology or Chemistry.

Contact Details:

Students wishing to study part-time or obtain specific programme advice should contact:

In Aberdeen:	In Ayr:	In Edinburgh:
N/A	<ul style="list-style-type: none">Chris Leggate01292 886172chris.leggate@sac.ac.uk	<ul style="list-style-type: none">Donald Mitchell0131 535 4086donald.mitchell@sac.ac.uk

Open Days



2011 Open Days are as follows:

- Saturday 10th September - Open Morning (10.30am-1.30pm)
- Wednesday 12th October - Open Afternoon (1.30-4.30pm)
- Wednesday 23rd November - Open Afternoon (1.30-4.30pm)

Applicant days are held in early 2012 for those applicants holding offers.

Please book your place through our web site at www.sac.ac.uk/opendays

2012 Open Days are as follows:

- Saturday 8th September - Open Morning (10.30am-1.30pm)
- Wednesday 10th October - Open Afternoon (1.30-4.30pm)
- Wednesday 21st November - Open Afternoon (1.30-4.30pm)

Visit Us:

Open days and evenings are held regularly and we encourage those interested in this course to attend in order to speak to staff, meet students, and see the facilities. In addition, each campus hosts a taster day each year. This is your chance to be a SAC student for the day. Details are available on the web site.

For more information please contact one of the Student Recruitment Officers or book through the web site. If you are unable to attend one of the open days, please contact us so that we can make alternative arrangements for you to visit.

General information and details about open days and taster sessions are available from:

In Aberdeen:	In Ayr:	In Edinburgh:
Student Recruitment Officer SAC Aberdeen Craibstone Estate ABERDEEN AB21 9YA Tel: (01224) 711189 Email: aberdeen@sac.ac.uk	Student Recruitment Officer SAC Ayr, Riverside Campus University Avenue AYR KA8 0SX Tel: (01292) 886196 Email: ayr@sac.ac.uk	Student Recruitment Officer SAC Edinburgh West Mains Road EDINBURGH EH9 3JG Tel: (0131) 535 4391 Email: edinburgh@sac.ac.uk

Student Profile

Mhairi Jack

When Mhairi Jack graduated from SAC, she was awarded the prize for the best Animal Science Honours student. Since then she has had an interesting and varied research career with SAC.

"I chose the course because it was scientifically based and also included a large practical element. The four years I spent as a student at SAC were very enjoyable. The course and its content were exactly what I had expected. The quality of education is excellent and prepares you for your life ahead, particularly the practical elements, which allow you to put the theory into practice. I found all staff to be friendly and approachable and this certainly made life a lot easier."



Mhairi was particularly interested in animal welfare issues and in the final year of her degree she carried out an Honours research project into the spacing requirements of laying hens. After graduating she was employed as a poultry research assistant at the Avian Science Research Centre, SAC, Ayr. Mhairi then worked for SAC vets at the Ayr Disease Surveillance Centre, investigating the welfare problem of cattle lameness for a project seeking to determine the best practice for footbathing dairy cows.

Mhairi is still working for SAC, but is now based at SAC, Bush Estate, Edinburgh where initially she worked on an organic cow project, which investigated the welfare of dairy cows on organic and non-organic dairy farms throughout the UK. She is currently working on a pig aggression project which involves analysis of videos of weaner pigs at mixing. The aim of this project is to determine whether aggression in pigs can be reduced by breeding from pigs which produce young that avoid fighting, thus improving meat quality (less skin lesions) and therefore improving farm profitability.

Career Prospects

Successful graduates are expected to gain employment enter careers with:

- animal care and welfare organisations/services
- the research sector (veterinary, pharmaceutical, agricultural, biotechnological and food industries)
- advisory and consultancy services
- pharmaceutical industries
- animal feed industries
- biotechnology industries
- the food chain industries (supply industries, retailers, food service industries)
- livestock businesses
- higher education establishments

SAC's graduate employment rate is 92%.

Some students may choose to progress onto one of a wide range of postgraduate opportunities available to them.

BSc (Hons) Applied Animal Science

Course Content

- 4 years full-time for BSc (Hons) Applied Animal Science
- 3 years full-time for BSc Applied Animal Science

Year 1

- Livestock Physiology
- Livestock Breeding
- Livestock Growth, Health and Welfare
- Cell Biology: Theory and Practice
- Animal and Plant Cell Culture
- Biochemistry: Theory and Practice
- Biotechnology: An Introduction
- Chemistry and Physics for the Life Sciences
- Microorganisms: Growth, Activity & Significance
- Environmental Awareness
- Plant Growth and Development
- Plant Physiology
- Quality and Health & Safety Systems in Science Industries
- Information Technology Applications Software 1
- Graded Unit: Project

Year 2

- **Core Subjects:**
- DNA Molecular Techniques: Theory and Practice (double unit)
- Immunotechnology: Theory and Practice
- Agro-ecosystems: Energetic Efficiency
- Livestock Health: Approaches to Disease Control
- Livestock Nutrition
- Livestock Production Systems
- Grass and Fodder Crop Production
- Statistics for Science 2
- Business Management: An Introduction
- **Core Subjects (continued):**
- Graded Unit: Project
- Graded Unit : Examination
- **Elective Subjects (students choose three):**
- Soils and Plant Nutrition
- Pollution and Waste Management
- Ecology & Ecosystems
- Terrestrial Ecosystem
- Animal Behaviour
- Animal Biology
- Equine Studies: Equine Health
- Wildlife Management

Exit after 2 years: HND Applied Bioscience

Year 3

- **Core Subjects:**
- Research Skills and Data Analysis
- Experimental and Analytical Techniques
- Animal Growth and Development
- Animal Welfare and Behaviour
- Livestock Enterprise Management
- Pharmacology in Animal Health
- **Elective Subjects (students choose two):**
- Animal Science and Society
- Horse Business Management
- Ecology: Management and Impacts
- Management Skills and Entrepreneurship
- Parasitology

Exit after 3 years: BSc Applied Animal Science

Year 4

- **Core Subjects:**
- Honours Project
- **Elective Subjects (students choose five):**
- Animal Feed Technology
- Animal Breeding and Genetics
- Animal Disease and Diagnostics
- Action for Biodiversity
- **Elective Subjects (continued):**
- Reproduction and Developmental Biology
- Poultry Meat Production Systems
- Equine Nutrition and Grazing Management
- Ecology: Issues and Investigations
- Molecular Bioscience
- Sustainable Environmental Management
- Food and Agri-business Economic Policy

Exit after 4 years: BSc (Hons) Applied Animal Science