1872 PRIFYSGOL ABERYSTWYTH UNIVERSITY | Department of Life Sciences

Undergraduate studies in

Agriculture, Animal and Equine Science

Contents

Top 2 in the UK

for the subject of Agriculture

(Good University Guide 2025, The Times and Sunday Times)

THE TIMES THE SUNDAY TIMES GOOD UNIVERSITY GUIDE 2024 WELSH UNIVERSITY OF THE YEAR

Important information

The programme information published in this brochure was correct at time of going to print (June 2025) and may be subject to change. Prospective students are advised to check the definitive programme information, including entry requirements, that is available on our website before making an application, to ensure that the programme meets their needs.

Welcome

Welcome to the Department of Life Sciences, a world-class centre for education and research based here at Aberystwyth University, which has a long-established reputation for teaching excellence in agriculture, animal and equine science.

We provide an outstanding learning environment for both your academic and personal development, with state-of-the-art facilities and generous scholarships. Your course will be brought to life by our committed and inspiring lecturers, with much of our teaching being led by the cutting-edge research interests of our staff.

In the Department of Life Sciences we are able to offer you a wide range of learning opportunities, including interactive lectures and seminars, laboratory classes, small group tutorials, and visits to farms, research establishments and agri-businesses throughout the UK. You will be assessed in a variety of ways, including exams, laboratory reports, presentations, and essays, all of which are designed to enhance your subject-specific, personal, and transferable skillsets. All our agriculture courses have a common first year allowing you the flexibility to switch between different agriculture courses at the end of your first year at Aberystwyth should you wish.

Aberystwyth lies on the shores of Cardigan Bay on the west coast of Wales, set in stunning natural surroundings. The locality offers a fine coastline with expanses of rolling moorland and wooded valleys immediately inland, providing unique opportunities for fieldwork. Our agriculture courses make extensive use of the University's farms, which extend to over 800 ha and represent the spectrum of UK growing conditions. Our enterprises include commercial and pedigree sheep flocks, a robotically milked dairy herd, dairy heifer replacement unit, beef fattening unit, and arable production focused on homegrown feeds including barley, wheat and oats. Our Lluest Equine Centre offers international-sized indoor and outdoor arenas, grazing paddocks and 20 stables for DIY livery.

Further information about our courses and other opportunities can be found in this booklet. Why not join us on an Open Day or Applicant Visiting Day to see for yourself what makes Aberystwyth such an incredible place to study.

Professor Iain Barber
Head of Department

Our courses

Single honours

We also offer:

- Animal Behaviour
- Biochemistry
- Biology
- Biomedical Science
- Ecology
- Genetics
- Health Science (Nutrition and Exercise)
- Marine and Freshwater Biology
- Microbiology
- Sport and Exercise Science
- Wildlife Conservation
- Zoology

Agriculture

BSc (Hons) | H21Y | 3 years

Aberystwyth has a long-established reputation for teaching excellence in agriculture. You will acquire a wide range of skills, supplementing your academic study at university with regular visits to commercially run farms and businesses, and gaining the latest insights from scientists at the cutting edge of agricultural research.

Modern agriculture is faced with the task of feeding an increasing global population against a backdrop of dwindling resources, the need to protect the environment, and the need to cope with, and mitigate against, climate change. At the same time, agriculture faces new priorities closer to home as the UK redefines its relationship with Europe. This degree will equip you to tackle these challenges, covering all aspects of agriculture and agricultural production systems, and developing a detailed understanding of the changing farming landscape. You will gain the practical skills needed to manage a sustainable business, and will be ready to adopt best practices, informed by current research, to tackle the challenges of livestock and crop management and get the best from your agricultural business.

You will benefit from:

- teaching by leading experts and researchers in their field
- visits to farms, research establishments and agri-businesses throughout the UK as an integral part of the course
- the opportunity to complete a tutor-supported work experience year to develop skills and enhance career prospects.

Key Facts

Typical offer:
UCAS tariff points: 120-96
IB: 30-26.

Assessment weighting: Typically 100% coursework, or 40-60% coursework and 60-40% exams.

Field trips/fieldwork: Yes.

Also available:

H22Y	Top-up scheme
H23Y	Year studying abroad
D401	Year in industry
D404	Integrated Masters.

Module list

Below is an indicative list of modules that you may study on this course.

First year:

- Agricultural Technology and Farm Safety *
- Business, Economics and Land Use
- Crop, Grassland, Soil and Agricultural Land Management *
- Introduction to Livestock Production and Science
- Skills for the Agricultural Industry *.

Second year:

- Agronomy and Crop Improvement *
- Food, Farming and the Environment *.

Final year:

- Research Project * or Critical Review *
- Advances in Agriculture *
- Farm Planning and Advanced Farm Management.

See our website for the optional modules you may select to develop your specialist interests.

* also available partially or entirely through the medium of Welsh.

Agriculture

FdSc - Foundation | D402 | 2 years

This degree is an excellent option for those who wish to train as managers of agricultural enterprises, or to retrain and pursue a career in agriculture. Students who successfully complete this course to the required standard can progress onto our BSc Agriculture degree.

On this course you will be challenged with real-life scenarios so that you can study a blend of science, technology, and farm management to explore and understand the way in which modern agricultural methods produce food in a sustainable manner and provide a profit for the farm business. You will cover all aspects of agricultural production systems, while also developing a detailed understanding of the changing farming landscape, and the skills and theoretical knowledge needed to manage a sustainable business.

You will benefit from:

- teaching by leading experts and researchers in their field
- visits to farms and agri-businesses throughout the UK as an integral part of the course
- work experience opportunities in the UK and overseas.

Module list

Below is an indicative list of modules that you may study on this course.

First year:

- Agricultural Technology and Farm Safety *
- Business, Economics and Land Use
- Crop, Grassland, Soil and Agricultural Land Management *
- Introduction to Livestock Science and Production Systems *
- Skills for the Agricultural Industry *.

Second year:

- Agronomy and Crop Improvement *
- Food, Farming and the Environment *.

See our website for the optional modules you may select to develop your specialist interests.

* also available partially or entirely through the medium of Welsh.

Key Facts

Typical offer:
UCAS tariff points: 96-72
IB: 26-24.

Assessment weighting: Typically 100% coursework, or 40-60% coursework and 60-40% exams.

Field trips/fieldwork: Yes.

Upon successful completion at the required level, you can progress onto the final year of one of our Agriculture BSc degrees.

Also available:
D403 Year in industry.

Agriculture with Animal Science

BSc (Hons) | 53C8 | 3 years

Alongside Aberystwyth's credentials in agriculture, on this degree you will benefit from teaching by active researchers in animal disease, nutrition, reproduction, behaviour and more; and from a range of well-equipped teaching and research laboratories. The Department of Life Sciences is home to VetHub1, an animal health research facility focusing on bovine tuberculosis, and the Barrett Centre for Helminth Control, an interdisciplinary research centre leading the fight against helminth diseases of livestock such as liver fluke.

On the Agriculture with Animal Science course, you will establish a firm foundation of practical skills and subject knowledge in agriculture and agricultural production systems. Alongside this core knowledge, you will immerse yourself in the science, production and management of livestock, benefitting from the insights of our active researchers. Your specialism in animal science will cover aspects of nutrition, reproductive physiology, animal health, and animal breeding, as well as emerging animal biotechnologies. With this skill set you will be ready to tackle the challenges of livestock production, and be primed for success in your agricultural business.

You will benefit from:

- being taught by, and becoming involved in, the research work of leading scientists
- visits to farms, research stations and agri-businesses throughout the UK as an integral part of the course
- work experience opportunities in the UK and overseas.

Module list

Below is an indicative list of modules that you may study on this course.

First year:

- Agricultural Technology and Farm Safety *
- Business, Economics and Land Use
- Crop, Grassland, Soil and Agricultural Land Management *
- Introduction to Livestock Production and Science
- Skills for the Agricultural Industry *.

Second year:

- Agronomy and Crop Improvement *
- Food, Farming and the Environment *.

Final year:

- Research Project * or Critical Review *
- Advances in Agriculture *
- Livestock Production Science *.

See our website for the optional modules you may select to develop your specialist interests.

* also available partially or entirely through the medium of Welsh.

Key Facts

Typical offer:
UCAS tariff points: 120-96
IB: 30-26.

Assessment weighting: Typically 100% coursework, or 40-60% coursework and 60-40% exams.

Field trips/fieldwork: Yes.

Also available:
D4D3 Year in industry
D4D4 Integrated Masters.

Agriculture with Business Management

BSc (Hons) | D4N2 | 3 years

Aberystwyth University conducts the annual Farm Business Survey in Wales on behalf of the Welsh Government. The survey collects financial and physical data from some 600 farms which is used by policy-makers and researchers to assess the economic factors affecting farming in Wales. Our staff are ideally placed to provide expert training in business management to complement your study of agriculture.

Agriculture with Business Management will provide you with a thorough grounding in practical skills and theoretical knowledge in both farming and commerce. This degree is appropriate for applicants with little or no farming background as well as those who already have knowledge of agriculture, since it provides a firm grasp of agricultural systems alongside the principles and practices of business. With the option to undertake an integrated year in industry, and with access to the numerous agricultural businesses and commercial farms in the locality and further afield, you will develop the core capabilities and skills demanded by a range of employers and needed for management of your own business.

You will benefit from:

- teaching by expert staff from Aberystwyth Business School, as well as the Farm Business Survey for Wales, the most authoritative source of financial information on farming businesses
- visits to farms and agri-businesses throughout the UK as an integral part of the course
- work experience opportunities in the UK and overseas.

Key Facts

Typical offer:
UCAS tariff points: 120-96
IB: 30-26.

Assessment weighting:
Typically 100% coursework, or 40-60% coursework and 60-40% exams.

Field trips/fieldwork: Yes.

Also available:
4D12 Year in industry.

Module list

Below is an indicative list of modules that you may study on this course.

First year:
- Agricultural Technology and Farm Safety *
- Business, Economics and Land Use
- Crop, Grassland, Soil and Agricultural Land Management *
- Introduction to Livestock Production and Science
- Skills for the Agricultural Industry *.

Second year:
- Agronomy and Crop Improvement *
- Food, Farming and the Environment *.

Final year:
- Research Project * or Critical Review *
- Advances in Agriculture *
- Farm Planning and Advanced Farm Management.

See our website for the optional modules you may select to develop your specialist interests.

* also available partially or entirely through the medium of Welsh.

Animal Science

Royal Society of Biology Accredited Degree

BSc (Hons) | D306 | 3 years

On our Animal Science degree, you will study the applied science relating to domesticated animals, including farm animals, horses and companion animals. As the home of the only Veterinary School in Wales (Aberystwyth School of Veterinary Science), we have excellent facilities to support your studies, including commercially run university farms, an equine teaching centre, and a range of teaching and research laboratories. Our teaching staff are also active researchers in areas such as veterinary infectious diseases, nutrition, reproduction, behaviour and more.

During your studies you will develop an understanding of the key biology relating to domesticated animal health, including anatomy, physiology, nutrition, disease diagnosis and behaviour. You will also be able to develop a special interest in either livestock science, equine science or behavioural science, by selecting one of the degree's three pathways. Your academic understanding will be firmly grounded within the practical and applied context of animal science and further enhanced by guest lecturers from different areas of the animal science industry.

You will benefit from:

- the option of a year in industry (D307), giving you the opportunity to develop key skills for working in the Animal Science sector
- the ability to specialise in either Equine, Behavioural or Livestock pathways
- teaching through a mix of practical classes, field trips, small-group tutorials and interactive lectures that will give you a firm grasp of the subject.

Module list

Below is an indicative list of modules that you may study on this course.

First year:
- Cell Biology *
- Disease Diagnosis and Control
- Domestic Animal Anatomy and Physiology
- Genetics, Evolution and Diversity
- Skills for Animal, Equine and Veterinary Bioscientists in Equine Exercise Physiology *
- Introduction to Livestock Production and Science *.

Second year:
- Animal Breeding: Genetics and Reproduction
- Applied Nutrition of Livestock, Horses and Companion Animals *
- Immunology
- Research Methods *
- Veterinary Health.

Final year:
- Research Project *
- Veterinary Infectious Diseases
- Veterinary Pharmacology and Disease Control.

See our website for the optional modules you may select to develop your specialist interests.

* also available partially or entirely through the medium of Welsh.

Key Facts

Typical offer:
UCAS tariff points: 120-104 to include B in A level Biology
IB: 30-28 with 5 points in Biology at Higher Level.

Assessment weighting: Typically 100% coursework, or 40-60% coursework and 60-40% exams.

Field trips/fieldwork: Yes.

Also available:
D30F Foundation year
D307 Year in industry.

Equine and Veterinary Bioscience

BSc (Hons) | D334 | 3 years

Our Equine and Veterinary Bioscience degree is the only one of its kind in the UK. It capitalises on Aberystwyth's reputation as a long-established provider of equine courses, our research strengths in animal disease, nutrition, reproduction and behaviour, and our collaborative links with practising veterinary surgeons at the Wales Veterinary Science Centre.

This degree will provide you with a solid understanding of core concepts in veterinary medicine, including immunology, disease processes and the diagnosis and treatment of disease in a range of species. Dedicated theoretical and practical classes will place special emphasis on the physiology of the horse. Teaching, including some by veterinary surgeons, will help frame your understanding within the practical context. This unique mix of subject matter will help you develop the knowledge and skills required in professional roles within the equine industry, as well as in careers allied to veterinary medicine, such as veterinary laboratory diagnostician.

You will benefit from:

- studying with the longest-established provider of equine courses in the UK
- superb facilities, including a large equine teaching centre, indoor and outdoor arenas, horse walker, round pen, weigh bridge, solarium, stables and foaling boxes with CCTV, demonstration areas, laboratories and much more
- an equine teaching centre which is a British Horse Society (BHS) Approved Training Centre, where you can study for your BHS qualification.

Module list

Below is an indicative list of modules that you may study on this course.

First year:
- Cell Biology *
- Disease Diagnosis and Control
- Domestic Animal Anatomy and Physiology
- Genetics, Evolution and Diversity
- Skills for Animal, Equine and Veterinary Bioscientists in Equine Exercise Physiology *.

Second year:
- Animal Breeding: Genetics and Reproduction
- Applied Nutrition of Livestock, Horses and Companion Animals *
- Immunology
- Research Methods *
- Veterinary Health.

Final year:
- Behaviour and Welfare of Domesticated Animals
- Research Project *
- Veterinary Infectious Diseases
- Veterinary Pharmacology and Disease Control.

* also available partially or entirely through the medium of Welsh.

Key Facts

Typical offer:
UCAS tariff points: 128-104 to include B in A level Biology
IB: 30-28 with 5 points in Biology at Higher Level.

Assessment weighting: Typically 100% coursework, or 40-60% coursework and 60-40% exams.

Field trips/fieldwork: Yes.

Also available:
D33F Foundation year
D335 Year in industry.

Plant Biology

Royal Society of Biology Accredited Degree

BSc (Hons) | C200 | 3 years

Excellent career opportunities await Plant Biology graduates, and Aberystwyth University is an ideal place for the first step in your career. We host internationally acclaimed plant breeding programmes for high-sugar grasses, plant genetics resources and databases, botany gardens and the National Plant Phenomics Centre. Our campus is also set within beautiful and accessible countryside that hosts a range of habitats and species.

On this degree you will study all aspects of plant life, from the molecular to the landscape levels, while also examining global issues relating to plants. You will consider how plant-based technologies can help us meet the demands of a growing human population and respond to global threats including food security and climate change. The course will also provide you with real-life opportunities to challenge your knowledge and think creatively.

You will benefit from:

- world-class facilities including botany gardens with a wide range of temperate and tropical plants, an extensive range of growth rooms and glasshouses, a museum of historic botanical specimens, and plant genetic resources collections and databases
- access to the National Plant Phenomics Centre and the possibility to engage with our world-leading plant breeding programmes
- many fieldwork opportunities, including the possibility of studying temperate, tropical and Arctic-Alpine flora
- beautiful habitats, including marine, moorland, mountain, woodland and grassland ecosystems, offering a fabulous variety of fieldwork and recreational opportunities.

Module list

Below is an indicative list of modules that you may study on this course.

First year:
- Cell Biology *
- Crop, Grassland, Soil and Agricultural Land Management *
- Genetics, Evolution and Diversity
- Microbial and Plant Diversity *
- Skills for Biologists *.

Second year:
- Agronomy and Crop Improvement
- Climate Change: Plants, Animals and Ecosystems
- Ecological Surveying *
- Research Methods *.

Final year:
- Research Project *
- Frontiers in Plant Science
- Microbial Pathogenesis.

See our website for the optional modules you may select to develop your specialist interests.

* also available partially or entirely through the medium of Welsh.

Key Facts

Typical offer:
UCAS tariff points: 120-104 to include B in A level Biology
IB: 30-28 with 5 points in Biology at Higher Level.

Assessment weighting: Typically 100% coursework, or 40-60% coursework and 60-40% exams.

Field trips/fieldwork: Yes.

Also available:
C201 Foundation year
C202 Year in industry
C20F Year in industry with foundation year.

Veterinary Biosciences

Royal Society of Biology Accredited Degree

BSc (Hons) | D906 | 3 years

Veterinary Biosciences capitalises on Aberystwyth's strength in the animal health sector, which has led to the establishment of the Aberystwyth School of Veterinary Science, the only Veterinary School in Wales. We have large animal facilities at our commercially run university farms and specialist equine teaching centre, as well as a range of laboratories to ensure you gain relevant practical skills.

On this degree, you will combine modern molecular, cellular and physiological aspects to understand the biology of farm animals, pets, horses and wild animals. Your research-led perspective on veterinary health and disease will be integrated with an understanding of the realities of veterinary practice. Among many skills, you will learn to synthesise information from scientific literature, scrutinise data in terms of quality and quantity, respond to new data through laboratory investigation, and understand the implications of the findings for the veterinary field.

You will benefit from:

- being taught by trained veterinary surgeons and world-class veterinary researchers
- practical experience involving animal handling at our equine centre and farms, with the latest scientific techniques taught in our modern laboratories
- the ability to progress into a range of veterinary careers including veterinary science degree programmes on graduation.

Module list

Below is an indicative list of modules that you may study on this course.

First year:
- Cell Biology *
- Disease Diagnosis and Control
- Domestic Animal Anatomy and Physiology
- Genetics, Evolution and Diversity
- Skills for Animal, Equine and Veterinary Bioscientists in Equine Exercise Physiology *.

Second year:
- Animal Breeding: Genetics and Reproduction
- Immunology
- Research Methods *
- Veterinary Health.

Final year:
- Behaviour and Welfare of Domesticated Animals
- Research Project *
- Veterinary Infectious Diseases
- Veterinary Pharmacology and Disease Control.

See our website for the optional modules you may select to develop your specialist interests.

* also available partially or entirely through the medium of Welsh.

Key Facts

Typical offer:
UCAS tariff points: 128-104 to include B in A level Biology
IB: 30-28 with 5 points in Biology at Higher Level.

Assessment weighting: Typically 100% coursework, or 40-60% coursework and 60-40% exams.

Field trips/fieldwork: Yes.

Also available:
D90F Foundation year
D907 Year in industry.

Integrated year in industry

If you want to broaden your horizons and get a taste of the workplace or experience a career through a work placement, then the integrated year in industry will strengthen and improve your career prospects after graduating. The majority of our single honours courses are available with the option of an integrated year in industry.

The integrated year in industry takes place in your third year, after which you will return to Aberystwyth to complete your degree in your fourth year. The year is assessed and contributes towards your final degree mark.

Advantages:

- More employable when you graduate
- More likely to have a higher starting salary
- More likely to secure a graduate level job.

Our own students have identified additional advantages:

- Find out what you would actually like to do as a graduate
- Great experience - exploring a new area which can be abroad
- Makes your final year easier
- Develop your social and professional networks.

Applications and interviews can be time-consuming and you will graduate a year later than your university friends, but the advantages of the integrated year in industry definitely outweigh the disadvantages.

What support is available?

- Support is provided by a dedicated member of staff primarily responsible for the integrated year in industry students and the department's own Careers consultant, working hand in hand with the Careers Service
- In your first year you will receive guidance on how to explore career opportunities and enhance employability
- In your second year you will receive help searching for posts, writing CVs, cover letters and making applications. You will receive formal interview practice and official approval of your placement(s)
- During your Year in Industry you will receive regular contact and support and will be visited by an academic supervisor.

Megan, McDonald's Progressive Young Farmer Programme, UK

My placement is with Avara Foods and Cargill Protein Europe. I am following the poultry from breeding parentstock, hatching and rearing broiler chicks through to primary processing in the factory. I have worked within the New Product Development team as well as on the factory floor, logistics and customer relations. I finish the year working in a McDonald's restaurant for 3 days, serving the final product.

After my year in industry, I view my degree in a completely different perspective; I can now appreciate how what I am learning at University is applicable in the agricultural sector. I would definitely recommend the programme and if you are considering applying for a placement next year – cer amdani!/go for it!

Studying through the medium of Welsh

All undergraduate degree schemes in the Department of Life Sciences can be studied partly through the medium of Welsh. For some degree schemes, more than half the modules are available through the medium of Welsh.

You may choose to present all your coursework, including assignments and oral presentations, through the medium of Welsh and complete your written examinations in Welsh, regardless of the module's medium of instruction. The Department also ensures that all Welsh-speaking students are allocated a personal tutor and dissertation tutor who can speak the language. These teaching arrangements mean that our Welsh-medium provision is open to students from a range of different Welsh language backgrounds.

Studying through the medium of Welsh is advantageous in many ways, including:

- increased job prospects
- being taught in smaller groups
- being part of a friendly and welcoming Welsh-speaking community.

All students studying Welsh medium modules will also be eligible for the University's Welsh medium study scholarship, worth up to £250 per year. Furthermore, many of our degree courses are eligible for Coleg Cymraeg Cenedlaethol undergraduate scholarships worth £1500 over three years. For more information about these scholarships and for a list of the eligible degree schemes please see the Coleg Cymraeg Cenedlaethol website: **colegcymraeg.ac.uk/en/students/university**

Research

The Department of Life Sciences is an internationally-recognised research and teaching centre providing a unique base for research in response to global challenges such as food security, bioenergy and sustainability, and the impacts of climate change. Our scientists conduct research on genes and molecules, whole organisms and the environment.

The National Plant Phenomics Centre (NPPC) is an important resource for many of our crop scientists. It offers state-of-the-art phenotyping platforms with the aim of delivering integrated phenotyping solutions for key crop and model species. Through the use of innovative technologies it is able to measure plant performance and physiology at different scales, from the molecular and cellular to organ and population level.

Animal Systems

The Animal Systems group studies more efficient ways of producing high quality animal products with emphasis on ruminants (dairy, beef and sheep). The aim is to develop innovative agricultural systems to deliver improvements in agricultural productivity, environmental protection, economic stability and animal health, and feeding systems that will improve the health of the animal and the quality of the animal product, which will ultimately result in a healthier consumer.

Breeding Methodologies

The Breeding Methodologies group focuses primarily on developing new approaches to plant breeding, developing novel technologies for genotyping and phenotyping and identifying the genetic basis of traits useful to breeders and for conservation. The main plant species researched include ryegrass, legumes, oats, clover and

Herbivore Gut Ecosystem

This group's interests lie in understanding and manipulating rumen function. A key aim is to minimise the production of undesirable emissions, such as methane and nitrogen, and their environmental impact by ruminant livestock, mainly cattle and sheep. Molecular approaches, including high-throughput DNA sequencing for metagenomic and transcriptomic profiling, and non-targeted metabolite analysis are used. With these technologies we develop and apply integrative approaches to the microbial ecology of feed utilisation and to explore the interactions between bacteria, fungi, ciliates and methanogens.

Public Good Plant Breeding

This group focuses on the potential of genetic improvement to support multifunctional land-use and alleviate environmental impacts as well as coping with problems associated with climate change. Researchers develop innovative grass, clover, oat and miscanthus varieties that have a significant impact in the market and on end use. By combining conventional and molecular approaches to plant breeding with high throughput phenotyping the group aims to develop improved plant varieties that are marketed by our commercial partners.

Plant Biology for the Sustainable Bioeconomy Research

This group undertakes internationally recognised plant biology and breeding relevant to biomass production by collecting and characterising relevant germplasm in the centres of diversity; breeding high yielding hybrids with drought, cold, heavy metal resilience to allow plants to be grown on marginal lands in current and future climates; and understanding and manipulating flowering and senescence for breeding better hybrids. Key techniques used in our research include nutrient management, nitrogen-fixation, potassium-recycling and carbon sequestration.

Research highlights

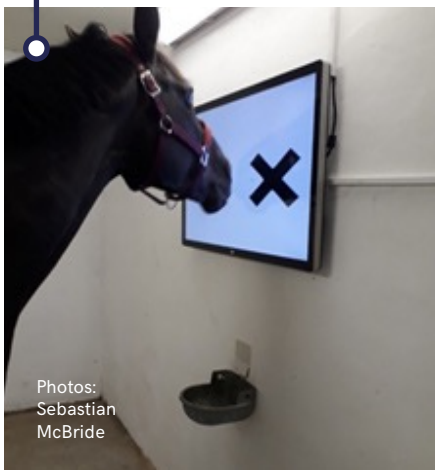
The Veterinary Prescribing Champions Network

Led by Dr Gwen Rees, the Veterinary Prescribing Champions Network works to help vets prescribe antibiotics responsibly and increase their effectiveness. Through training, applying new technology, data gathering and improving understanding, the programme encourages and demonstrates ways to reduce the need to use antibiotics and the risk of antimicrobial resistance developing. The programme has already given us new insights into antimicrobial resistance development and spread, and the network is making a real difference to how antibiotics are used here in Wales.

Touchscreens for Horses

Cognitive testing allows specific regions of the brain to be investigated and, using touchscreen technology in conjunction with specific software, provides a unique tool to measure equine cognition and brain function under different environmental conditions.

Current research at Aberystwyth is assessing how novel environments can affect equine sleep and how this subsequently manifests as changes in cognition. Further research using the technology will assess whether depression in horses can be detected through changes in cognitive ability.



Photos: Sebastian McBride

Growing crops indoors could be key part of future food security

Vertical farming is the process of producing food by growing it in stacked layers within controlled indoor environments. This method helps farmers to produce much more on the same amount of land and reduce the environmental impact, and to avoid the future challenge presented by extreme weather events.

This technology is vital to tackle potential food insecurity because of our changing climate. Vertical farming could be a key part of our future food production systems. One of the aspects we are looking at is the ability to switch food production into controlled environments at speed.

Environmental DNA analysis to identify liver fluke transmission hotspots on farms

Our scientists have developed an innovative method for analysing DNA in environmental samples to detect the presence of fluke parasites which infect cattle and sheep and their intermediate snail host.

This technique is now used in a major research project investigating liver fluke infection dynamics on Welsh farms and farmer perception of disease transmission hotspots and the feasibility of control strategies, all of which will lead to the development of new liver fluke infection risk models and sustainable control guidelines.

Photo: Rhys Jones

Global opportunities

Aberystwyth's Global Opportunities team offer an exciting range of options for you to go overseas as part of your degree: from short courses and volunteering opportunities in the summer, to a full semester or year abroad studying at one of our partner universities. Our partners include Norway, Japan, Denmark, Canada, Austria, Spain, and New Mexico.

If you choose to study with an integrated year abroad, the University enables you to study for one or two semesters during your third year, returning to Aberystwyth for your final year and graduation.

Reports have shown that students who study abroad are more attractive to employers and earn more than their peers. Take advantage of the opportunity of a lifetime while improving your critical skills by choosing to study abroad.

The application process

1 Apply through UCAS.com

Check the UCAS deadline on UCAS.com. Aberystwyth University institution code: A40. **TOP TIP:** You'll be given a 10-digit UCAS ID number. Keep this to hand as you'll be asked for it many times.

2 The University will consider your application

TOP TIP: Use UCAS Hub to keep an eye on your application. At Aberystwyth we aim to make a decision within seven days.

3 The offer will show on UCAS Hub

The University's decision will show on UCAS Hub - if you've been made an offer, it will tell you what grades you need to achieve to secure your place.

4 Decide where to go

Once you've received all your offers, you'll need to decide which university you want to go to, within a set time. This is when you'll need to note which universities will be your Firm and Insurance choices.

5 Accommodation

Once you've chosen your Firm/Insurance choice you'll be invited to apply for accommodation.

6 Results day

UCAS Hub will tell you whether your place is confirmed at your Firm choice. If you don't get the grades you'd hoped for, you may want to consider entering Clearing.

7 Start packing!

Remember to keep an eye on your emails for information about arrival and welcome activities.

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