



BSc (Hons) / BSc Animal Behaviour and Welfare (Top-up)

UCAS code	BSc: D32N BSc (Hons): D328
Institution code	H12
Duration	1 year (full-time)
Start date	September 2022
Location	Harper Adams University campus*

The course

This modular course offers FdSc/HND Animal Welfare and Management and HND Animal Care (or equivalent) students the opportunity to upgrade their qualification to an honours degree. It is linked closely to the established BSc (Hons) Animal Health and Welfare.

The key areas to be studied include Principles of Animal Behaviour, Behavioural Methodology and Applied Animal Behaviour. There are also specialist modules for both farm and companion animals in terms of behaviour and welfare. Graduates from this course would be well suited to careers as pet behaviour counsellors or animal welfare officers.

Entry requirements

- Top-up applicants must have achieved an average of 55% in their Foundation degree to apply for BSc non-honours and 60% to apply for BSc Honours.
- Applicants must have completed a full year's placement as part of their course of study or two years of full-time relevant employment after their course.

A-level entry requirements

- **Entry requirements for 2022 entry are not currently available. Please contact Admissions for advice**

Teaching and learning

* During the Covid-19 Pandemic the University is delivering blended learning. Government guidance is being constantly reviewed to establish the learning events which can be delivered face to face. Please refer to our [frequently asked questions](#) for further details.

Click module title to see full description.

Note: BSc (Hons) Year 2 is July-December only, and is a continuation of the Honours Research Project module started in year 1.

What will I study?

BSc (Hons) Top-up

Year 1	
Honours Research Project (HRPROJC17)	30
Research Methods (Animals) (A5011C17)	15
Animal Improvement and Bioethics (A6005C17)	15
Applied Companion Animal Health, Welfare and Behaviour (A6007C17)	15
Integrated Health Management (A6018C17)	30
Advances in Farm Animal Health, Welfare and Behaviour (A6003C17)	15
Options	
Behavioural Methodology (A5015C17)	15
Philosophy of Zoos (A5007C17)	15
Advances in Equine Science (A6002C17)	15

Honours Research Project

Year of study	1
Code	HRPROJC17
Credits	30
Core/option	Core

The Honours Research Project is designed to allow students to develop the skills and personal resilience needed to undertake a sustained, significant and high quality project. In conjunction with his or her supervisor, and in light of detailed course specific advice, each student will select a topic for investigation. They will then plan, execute and report their project. The module will draw upon learning from other taught modules, but it also requires a high degree of independent learning.

Students will need to apply their learning about the research methods associated with their discipline as they locate data to support their project; they may need to apply methods creatively according to the nature of their research topic. Throughout the module, students will be expected to make choices about the scale and manageability of their work; they will also need to apply good time management skills to ensure success. The project will require all students to search for literature related to their topic and to read independently. Students must make decisions about the direction of their research, and they will be expected to work pro-actively to benefit from supervision opportunities.

Students will be expected to ensure that each part of their project is ethically sound; this means following protocols but also by developing an ethical mind-set which is sensitive to stakeholders and issues arising in the research process. Students must ensure that they attend to issues of health and safety throughout their research.

Research Methods (Animals)

Year of study 1
Code A5011C17
Credits 15
Core/option Core
Module contact [Dr Stephen Mansbridge](#)

The ability to collect, analyse and interpret data appropriately is a core skill for all those involved in modern animal science. In view of this, research skills are important to enable the critical appraisal of published research, and for the development of appropriate study designs to fulfil research objectives. This module forms part of the Professional Scholarship Programme (PSP) and is taken by all BSc and MSci students studying animal programs. The skills gained within this module are essential for the completion of the level 6 / 7 research projects in the final year. Students will learn valuable skills covering critical literature reviews, the importance of research designs and protocols in the context of quality assurance schemes, data collection / analysis and presentation of information. By carrying out statistical analysis using appropriate software during tutorials, the students will develop their ICT skills and further their understanding of the role of statistics in the research process.

Animal Improvement and Bioethics

Year of study 1
Code A6005C17
Credits 15
Core/option Core

With the rapid developments in animal breeding technologies an understanding of the processes involved and their application to modern livestock production is required. This module will provide the student with the opportunity to apply the genetic principles underlying animal breeding to a number of species of animals and systems of livestock production. To undertake this, students will require an understanding of the systems used in livestock production and other roles to which animals are currently put and may be used for in the future in the context of the socio-economic environment in which they operate. In addition, the relationship between animals and humans is explored and consideration is given to the ethical implications of the various roles of animals in society and the manipulation of animals by biotechnology.

Applied Companion Animal Health, Welfare and Behaviour

Year of study 1
Code A6007C17
Credits 15
Core/option Core
Module contact [Stephen Baugh](#)

An integrated understanding of companion animal health, welfare and behaviour is essential for the development of companion animal management programmes that ensure optimum welfare.

This module is designed to provide a detailed knowledge of the factors involved in the aetiology and development of common diseases seen in companion animals (cats, dogs, small mammals, birds and reptiles) and develops the skills required to recognise signs of ill health in animals and to develop disease control and prevention strategies.

The behaviour of companion animal species will be considered, how health can influence behaviour, why certain behaviours may be suppressed in domestic settings and how this may lead to the development of pathology and inappropriate or abnormal behaviours. The prevention and control of behavioural problems will also be considered.

Aspects of animal physiology, nutrition, health and general husbandry introduced in earlier modules will form an essential background for this module.

Integrated Health Management

Year of study 1
Code A6018C17
Credits 30
Core/option Core
Module contact [Dr Claire Kershaw](#)

Often factors affecting animal health, disease, welfare and production such as nutrition, reproduction and epidemiology are taught independently. Within this module, students will learn the importance of considering how these individual factors influence one another. This module integrates these factors to develop student's ability to assess the management status of various animal management systems.

The application of knowledge and intellectual skills gained from the module and from experience within the animal industry will be required to formulate appropriate programmes for the maintenance of the health and welfare of the animals and also of the health and safety of staff members and the public.

Advances in Farm Animal Health, Welfare and Behaviour

Year of study 1
Code A6003C17
Credits 15
Core/option Core

This module will deepen students' understanding of farm animal welfare and its links to animal health, behaviour and disease control. With the increasing public interest in the welfare of farm animals, an understanding of different indicators and how these may show an animal's welfare status is required by those involved in any aspect of animal production. The welfare of animals is important not only during their housing and management but in response to handling, transport and slaughter; this module will focus on the welfare of farm animals in all of these situations. There is also growing public concern for human food safety and the importance of animal health; graduates in all fields of animal science need to understand efficient diagnostic techniques and disease surveillance and possibilities for the future in this field. Understanding the production of effective animal medicines is also necessary.

Behavioural Methodology

Year of study 1
Code A5015C17
Credits 15
Core/option Option
Module contact [Professor Mark Rutter](#)

This module will cover the principles and methods of quantitative studies of animal behaviour. The often subjective nature of animal behaviour makes it all the more important to devise and conduct experimental studies that allow behavioural data to be recorded, analysed and interpreted objectively. This module aims to teach students to devise and conduct a variety of behavioural experiments, and use the knowledge and understanding gained from the module Principles of Animal Behaviour and Welfare to interpret their data. The synthesis of these should enable them to critically appraise published behavioural research papers. Note that this module will not teach statistical methods – these are taught as part of the Research Methods module.

Philosophy of Zoos

Year of study 1
Code A5007C17
Credits 15
Core/option Option
Module contact [Dr Ellen Williams](#)

Zoos and menageries began as prestigious private collections. In the 19th century many zoos were

established as sites of recreation. The primary role of entertainment continued to the 1960s but as societies views have changed, zoos have had to revise their "missions". Development of zoo licensing legislation and key organisations such as British and Irish Association of Zoos and Aquariums (BIAZA), European Association of Zoos and Aquaria (EAZA), World Association of Zoos and Aquariums (WAZA) has supported zoo development. Zoos have advanced from predominantly recreational facilities to centres of research excellence. Modern zoo missions are centred around four key principles: education, research, conservation and recreation. Students will appreciate the extensive development of zoos over time, including advances in understanding of animal health and welfare needs, and review how modern zoo missions are undertaken by zoological collections.

Advances in Equine Science

Year of study 1
Code A6002C17
Credits 15
Core/option Option

Knowledge of the scientific principles that underlie recent advances in areas relating to equine health, nutrition and reproduction is increasingly important in an industry that has advanced considerably over the last decade. This module will build on the concepts learned in Equine Science and allow the student to develop a deeper understanding of issues affecting the equine industry in these three areas. Considerable independent study will permit students to develop the ability to discriminate, evaluate and analyse information from a variety of sources.

- Evaluate current issues affecting equine health, nutrition and reproduction.
- Critically comment on future and potential developments within equine reproduction.
- Apply advances in animal disease and nutritional science to the management of equine animals.

BSc Top-up

Year 1	
Degree Review Project (DRPROJC17)	15
Applied Companion Animal Health, Welfare and Behaviour (A6007C17)	15
Integrated Health Management (A6018C17)	30
Advances in Farm Animal Health, Welfare and Behaviour (A6003C17)	15
Options	
Philosophy of Zoos (A5007C17)	15
International Perspectives on the Management of Animal Populations (C6010C17)	15
Animal Improvement and Bioethics (A6005C17)	15

Degree Review Project

Year of study 1
Code DRPROJC17
Credits 15
Core/option Core

Although Ordinary Degree students are not required to engage in the research based major projects completed by honours degree candidates, it is necessary that they display the ability, at Honours level, to learn independently and display the skills required for lifelong learning; to demonstrate awareness of the provisional nature of facts and principles and to marshal evidence and apply it in a balanced way in an argument and to draw soundly based conclusions. The development of these skills is the purpose of this module.

Applied Companion Animal Health, Welfare and Behaviour

Year of study 1
Code A6007C17
Credits 15
Core/option Core
Module contact [Stephen Baugh](#)

An integrated understanding of companion animal health, welfare and behaviour is essential for the development of companion animal management programmes that ensure optimum welfare.

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Aspects of animal physiology, nutrition, health and general husbandry introduced in earlier modules will form an essential background for this module.

Integrated Health Management

Year of study 1
Code A6018C17
Credits 30
Core/option Core
Module contact [Dr Claire Kershaw](#)

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Advances in Farm Animal Health, Welfare and Behaviour

Year of study 1
Code A6003C17
Credits 15
Core/option Core

This module will deepen students' understanding of farm animal welfare and its links to animal health, behaviour and disease control. With the increasing public interest in the welfare of farm animals, an understanding of different indicators and how these may show an animal's welfare status is required by those involved in any aspect of animal production. The welfare of animals is important not only during their housing and management but in response to handling, transport and slaughter; this module will focus on the welfare of farm animals in all of these situations. There is also growing public concern for human food safety and the importance of animal health; graduates in all fields of animal science need to understand efficient diagnostic techniques and disease surveillance and possibilities for the future in this field. Understanding the production of effective animal medicines is also necessary.

Philosophy of Zoos

Year of study 1
Code A5007C17
Credits 15
Core/option Option
Module contact [Dr Ellen Williams](#)

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International Perspectives on the Management of Animal Populations

Year of study 1
Code C6010C17
Credits 15
Core/option Option
Module contact [Dr Nicola Randall](#)

This module aims to enable students to use evidence-based research to inform management decision making for animal populations. Through their behaviour, organisms establish their place in the environment and their relationship with other species. Success is also affected by human induced factors such as habitat loss and fragmentation, introduced/invasive species, climate change and overharvesting.

This module will build on the animal behaviour concepts studied in levels 4 and 5, and how behavioural strategies and adaptations of different species combine with external factors to influence their fitness and survival. The module will consider how an understanding of behaviour can aid wildlife management with particular reference to one or more species of concern.

Animal Improvement and Bioethics

Year of study 1
Code A6005C17
Credits 15
Core/option Option

With the rapid developments in animal breeding technologies an understanding of the processes involved and their application to modern livestock production is required. This module will provide the student with the opportunity to apply the genetic principles underlying animal breeding to a number of species of animals and systems of livestock production. To undertake this, students will require an understanding of the systems used in livestock production and other roles to which animals are currently put and may be used for

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