

*University Centre*   
**BISHOP BURTON**

*Validated by:*



**UNIVERSITY OF  
LINCOLN**

*BSc (Hons) Equine Health and Nutrition*

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## **Applicant Programme Guide**

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## Award Details

Programme	BSc (Hons) Equine Health and Nutrition
Duration	Full time (3 years)
Validating Partner	University of Lincoln
Location of Study	Bishop Burton

## Entry Requirements

Applicants are required to have:

- A minimum of 104 UCAS points
- GCSE English Language at grade C/4 or above, or an equivalent qualification
- An appropriate academic reference

UCAS points may be from qualifications such as A-Levels, BTEC Level 3 Extended Diplomas, Access to HE Diplomas, and City and Guilds Advanced Technical Diplomas amongst others. Please use the UCAS Tariff points calculator to determine the UCAS points value of your qualifications: <https://ucascomsb1.ucasenvironments.com/ucas/tariff-calculator>

- Life and/or experience of non-traditional students will be taken into account when considering applications. The successful completion of an entry task may be required when considering applications without the required formal entry qualifications.
- If first language is not English, or a Tier 4 student visa to study is required and GCSE grade C/4 English or equivalent is not held, English language proficiency level such as International English Language Testing System (IELTS) 6.0 overall (with a minimum 5.5 in each skill) will need evidencing.
- Advanced entry may be possible due to prior experience or certificated learning; applicants will be invited to complete the accreditation of prior learning approval process.

## How to Apply

Application Route	Online via UCAS: <a href="http://www.ucas.com">www.ucas.com</a>
Course Code	D4R7
Institution Code	B37
Campus Name	Bishop Burton

# 1. Introduction

*Animal and equine feed companies are expanding research and development of products to improve performance and health status within the equine industry, and such companies require knowledgeable graduates with nutritional expertise and understanding of clinical health conditions. This programme is designed to provide you with an in-depth specialist understanding of wellbeing of the horse through study of the principles underpinning health and nutritional management.*

*You will utilise our excellent laboratory facilities, including nutritional analysis equipment, to become confident and capable in conducting a breadth of protocols in preparation for working in scientific and research settings with equine and animal industries as well as wider areas. The inclusion of Immunology, Molecular Biology, and Equine Sport Injury and Diagnostic Technologies further ensures that you have in-depth scientific knowledge and practical competency in relevant scientific disciplines.*

*The potential threat of various infectious equine diseases to our UK shores and the international nature of the equine industry is of key focus; our programme explores disease monitoring, biosecurity control and preventative technologies to prepare graduates for such roles. The inclusion of Equine Clinical Nutrition in your final year allows the combination of health and nutrition to give you an independent opportunity to review case studies with regards to nutritional management of clinical disorders and is a chance to experience industry practice in a supportive setting.*

*You will develop a strong understanding of the horse with studies of Anatomy, Exercise Physiology, and Husbandry to ensure sound unpinning for entering applied roles in health and welfare settings. This will be combined with confidence in the process of Ration Formulation, understanding of the global nutrition industry and UK legislation of feeding and feed manufacturing to give you skills and understanding for equine managerial and quality assurance roles. For those with aims of working as independent nutrition advisors, you will be supported with the study of Enterprise and Entrepreneurship so you can prepare for managing your own business.*

*The programme seeks to provide you with a stimulating and challenging experience in order to promote health, welfare and optimise nutrition of the equine athlete, ensuring sound research and analytical skills are developed to apply scientifically informed processes.*

## 2. Programme Aims

The BSc (Hons) Equine Health & Nutrition programme aims to develop critically informed, reflective and adaptable graduates prepared to enter a wide variety of scientific roles.

The aim of the programme is to:

- Develop and acquire skills and knowledge in nutritional science to effectively practice in the area of animal nutrition with specialist focus on the equine;
- To equip students with the laboratory skills and in-depth knowledge necessary to forge a career in the equine health sciences;
- Encourage an inquiring, analytical and critical approach to appreciating and solving problems using modern technology;
- Develop creativity, self-confidence and independent judgement;
- Encourage appropriate professional attitudes such as initiative and motivation as benefits the needs of contemporary employers;
- Produce graduates with the appropriate skills and understanding to enter a diverse range of employment opportunities in the equine science sector in the UK and abroad.

## 3. Programme Structure

### 3.1 Programme of Study

The academic year is split into two semesters, each of 15 weeks duration. The structure of the programme of study is shown in the table below, with the credit weighting in brackets.

Level 4 (Year 1)	
Semester 1	Semester 2
Academic, Employment and Professional Skills (15)	Introduction to Research Skills (15)
Equine Health & Husbandry (15)	Scientific Principles and Laboratory Skills (15)
Grassland Management and Forage Conservation (15)	Introduction to Nutrition (15)
Equine Anatomy & Physiology (15)	Cell Biology (15)



Level 5 (Year 2)	
Semester 1	Semester 2
<i>Research Methods &amp; Analysis (30)</i>	
<i>Equine Ration Formulation and Micro-Nutrition (30)</i>	
<i>Equine Exercise Physiology (15)</i>	<i>Enterprise and Entrepreneurship (15)</i>
<i>The Nutrition Industry (15)</i>	<i>Equine Infectious Disease (15)</i>

Level 6 (Year 3)	
Semester 1	Semester 2
<i>Dissertation (30)</i>	
<i>Equine Sport Injury &amp; Diagnostic Techniques (30)</i>	
<i>Immunology (15)</i>	<i>Molecular Biology (15)</i>
<i>Equine Clinical Nutrition (15)</i>	<i>Advanced Nutritional Biochemistry (15)</i>

### 3.2 Work Based Learning

*There is no formal work experience as part of this programme, however, you will participate in activities in some modules that are reflective of industry practice such as a clinical nutrition case study; and we encourage and support students who wish to undertake experience during the summer months.*

### 3.3 Modules

*You will study the following core modules throughout your programme:*

#### Level 4

##### *Academic, Employment & Professional Skills*

*Abilities, skills and confidence are developed, as you take responsibility for an increasing amount of your own learning. You will explore an area of current subject interest learning to research and evaluate arguments to develop conclusions and recommendations. A good base of generic skills is provided to enhance future academic study and employability, this module sets you up effectively for future academic work and next career steps.*

##### *Cell Biology*

*You will study the molecular biology of organisms including review of the structure of the cell and relates cell structure to function, providing knowledge for a number of scientific modules on the programme. The differentiation of cells and their*

*organisation into tissues is investigated through practical histology techniques, allowing you to develop competency and confidence in essential laboratory methodology.*

#### *Equine Anatomy and Physiology*

*An underpinning understanding of equine anatomy and physiology is paramount for the practical application which relates to modules throughout their degree and many future career roles. This module covers the major systems of the equine body, from a gross anatomical perspective, right down to cellular structures and processes.*

#### *Equine Health & Husbandry*

*Understanding of the principles underpinning vocational horse husbandry is critical for those working in the industry. Effective equine practical management is not only necessary for the promotion of horse welfare, health and performance, but also for health and safety considerations. You have opportunity to develop confident practical skills with underpinning knowledge of current management practices.*

#### *Grassland Management and Forage Conservation*

*Grassland forms the basis of the diet for the vast majority of the UK equine population, whether this is in the form of grazing land or as conserved forage. If working in the nutrition industry, you should have a working knowledge of the contribution of grasses and forage to the equine diet and how to optimise the nutrition provided from this vital fibre source.*

#### *Introduction to Nutrition*

*This module aims to provide you with an overall introduction to key nutritional concepts which will form the basis of knowledge to be built upon over the remainder of the programme. You will compare digestive tracts and optimal nutrition of various mammals to gain an understanding of how we can feed to best suit each animal's specialised system.*

#### *Introduction to Research Skills*

*As research is a core aspect in any degree programme, in this module you will be introduced to the skills necessary to maximise your learning throughout your programme of choice. Your ability, skills and confidence will be developed as you choose your own area of current research to explore in a literature review and take part in short practical projects to enhance your ability to analyse and present data.*

#### *Scientific Principles and Laboratory Skills*

*This module equips you with the underpinning laboratory skills that are needed in many other modules throughout your programme. Regardless of your previous experience, this is a fun, challenging and 'hands-on' module to get you comfortable working in a laboratory environment. You will progress through*

*practical skills and theory that will enable you to contextualise the scientific principles towards the internal workings of the horse.*

### Level 5

#### *Enterprise and Entrepreneurship*

*Graduates from all programmes benefit from having good business acumen. This module is designed to provide knowledge on how to run a business and inspire innovative approaches to enhance an enterprise. A consideration is made of business types and models and business planning strategies, with application to live business examples to bring a real-life setting whilst ensuring you develop reflection practice to recognise and develop your own employability skills for entering the graduate market.*

#### *Equine Infectious Disease*

*This module investigates the nature of the disease process and examines the relationship between the host and the infective agent related to the transmission of different equine diseases. You will explore current threats and appreciate previous cases that inform strategies of disease control and prevention, both UK and globally, to prepare for working in a breadth of roles across the industry.*

#### *Equine Exercise Physiology*

*Understanding of the scientific principles underpinning the practical application of training the horse is important across the equestrian disciplines. Emphasis is placed on the physiological adaptations of the body in response to different training programmes. You will explore exciting new developments in exercise physiology for the preparation of horses across the range of equestrian sports.*

#### *Equine Ration Formulation and Micro-Nutrition*

*Developing and advising on diets for a range of horses is a key part of the role of any equine nutritionist. This module will cover the nutritional requirements of a range of equids in depth and provide you with the key skills required to design diets. Within a ration, it may be appropriate to consider supplements and balancers, as they are a huge section of the equine nutrition industry. With new products coming on the market all the time there is a large scope for graduates to work in this field. This module is dedicated to providing knowledge and understanding of how the compounds within these products work within the body and encouraging appraisal of the value of a range of commonly used equine supplement types.*

#### *Research Methods and Analysis*

*Knowledge of research methods and data analysis is an imperative part of all degree programmes. This module will discuss the research process of identifying problems, collecting and processing data, analysing the findings and producing results, conclusions and recommendations for further work. It provides you with an understanding of experimental design from concept to completion including a working knowledge of experimental statistics and qualitative analysis techniques.*

### *The Nutrition Industry*

*This module aims to prepare you for employment as a professional within the nutrition industry. It will cover the practicalities of working within the industry including policies and legislation affecting the production of foodstuffs and supplements as well as social, cultural and political issues and agendas that affect the supply and sustainability of foodstuffs.*

### Level 6

#### *Advanced Nutritional Biochemistry*

*The development and quality assurance of feedstuffs requires an in depth understanding of the structure, function and metabolism of the different nutrients within the body. This module will cover the theory of these aspects as well as how to test for the proportions of these nutrients within batches of produced feed. You will have a mixture of practical lab-based sessions with your lectures and seminars to provide you with the knowledge and practical skills to work within a nutrition laboratory.*

#### *Dissertation*

*The dissertation is an individually chosen, in depth research project which provides an opportunity to work independently and at length on a topic of particular interest. Advanced intellectual skills such as evaluation, analysis and synthesis, as well as management skills are developed through a substantive piece of research, which may reflect the interdisciplinary nature of the degree programme. The dissertation will offer the development of specialist knowledge which in turn may open career opportunity and enhance ability to communicate in range of formats and to various audiences.*

#### *Equine Clinical Nutrition*

*In this module you will marry together two key themes of your programme and focus on the nutritional management of equids with a range of diet related diseases and disorders. This module allows you to be independent in your work to reflect your level of study at this stage and will involve reviewing a wide range of case studies of individual equids with a range of nutritional/metabolic disorders. A key module in preparation for industry!*

#### *Equine Sport Injury & Diagnostic Techniques*

*The risk factors surrounding injuries within equine sports are explored in-depth. You will have opportunity for a critical review of all diagnostic modalities, treatment methods and rehabilitation techniques used in the performance horse in the field, veterinary practice and laboratory. The latest advances in equine sports medicine diagnosis and research are evaluated and capable practical laboratory techniques in equine haematology and microbiology in relation to diagnosis are developed, providing valuable skills for those entering roles in veterinary or medical sciences.*

### *Immunology*

*The advanced features of the immune system and the relationship between the host and the infective agent are investigated. An advanced understanding of the animal's natural immune system allows an appreciation of how this can be manipulated by artificial means to prevent or minimise the effects of infection. Complemented by relevant laboratory practical techniques, this module prepares the equine science graduate for progression into veterinary, health and medical settings.*

### *Molecular Biology*

*The concepts of molecular biology and genetics already investigated are taken further. Study includes population genetics and speciation, developmental genetics, medical genetics and genetic manipulation of genomes. An applied approach is adopted to relate to the horse, however it has wide reaching applications for a range of future career roles contributing to advancing science.*

## **4. Delivery**

### *4.1 Teaching and Learning Approach*

	<i>Contact Time</i>	<i>Independent Study Time</i>
<i>Approximate hours per week:</i>	<i>13</i>	<i>25-30</i>
<i>Delivery includes:</i>	<i>Lectures, seminars, practical sessions and tutorials. Sessions may be delivered in person or using remote platforms.</i>	<i>Reading around the subject, preparing for taught sessions and preparing for and completing module assessments and revision for examinations.</i>

*You can expect:*

- *Experienced, supportive and motivated staff with both academic and industrial experience.*
- *Access to an Online Virtual Learning Environment called iLearn, which is used to enhance and facilitate teaching and independent learning on all programmes.*
- *Guest lectures and demonstrations from a range of visiting speakers and off-site trips.*

## 4.2 Learning Resource Centre

*Students will be required to undertake reading, research and investigations outside formal sessions, in order to gain a deeper understanding of the subjects. You will have access to the Learning Resource Centre (LRC) where you will find our friendly LRC staff who can help you access over 32,000 items which are available to loan. The LRC provides access to over a thousand journal titles from a range of databases, specialist collection journals and hundreds of eBooks. Our ICT suite has over 40 computers and is the ideal place to spend your self-directed study time. We have free WiFi across the campus, so you can also use your own devices or borrow one of the College's laptops. Our LRC team can help you to pre-book these too.*

*The LRC opening hours are:*

*Monday – Thursday 8.30AM – 7.00PM*

*Friday – 8.30 – 5.00PM*

*Saturday – 8.00AM – 12.30PM*

*Opening times may vary at the beginning/end of terms and during holidays. Opening hours will be updated on the LRC iLearn page. Electronic resources are available 24 hours a day, 365 days a year. You can also access the HE LRC Study Room in the University Centre 24 hours a day using your ID card for access.*

### 4.3 Assessment and Feedback

*The programme will incorporate a variety of assessment methods across each academic year. The mix of assessments will seek to challenge and evaluate your knowledge, understanding and skills. Assessments for this programme may include written assignments, time constrained assessments, log books and portfolios, practical assessments, seminars and presentations, project-based assessments, examinations and a dissertation.*

*Tutors provide support for assessments in class. There will also be opportunity for formative assessment and feedback during the delivery of each module to monitor learning, and to support and prepare you for the summative assessments which make up the module. Feedback on your summative assessments will be given which will allow you to guide efforts and activities in subsequent modules.*

### 4.4 Timetables

*You can expect to receive your timetables during induction week.*

### 4.5 Work Experience

*Relevant extra-curricular activity and/or work experience is encouraged of all students in order to enhance learning.*

## 5. Facilities

*University Centre Bishop Burton (UCBB) is a truly unique and impressive campus. Based on 890 acres of stunning countryside and commercial mixed-use farming land, you will have the opportunity to study in a specialist learning environment, different to any other in the country.*

*You can expect excellent equine facilities including Bishop Burton Arena, Therapy Centre with Water Treadmill, CET Equine Spa, Solarium and Zamar, 2 indoor arenas, 3 outdoor arenas, stabling for over 100 horses and Rider Fitness & Performance Suite featuring 2 Mechanical Horses. The commercial equine centre hosts extensive range of competitions, demonstrations and clinics, and is a BHS training and examination centre. You will have access to specialist equipment including Quintic Gait Analysis software, FLIR Thermal Imaging cameras, Polar Heart Monitors, Televet ECG, Synchronicity and TeleRein Rein Tension Gauges, Noldus Observe XP software.*

*You will have access to the Peter Fox Science Centre including multiple lab spaces and a specialised University Centre project lab which houses nutritional equipment such as bomb calorimeter, SOX THERM, Vapordest distilling unit, as well as standard laboratory equipment such as incubators, centrifuges, spectrophotometer, confocal and standard microscopes.*

*As a UCBB student you will be able to take advantage of the impressive campus facilities including our Learning Resource Centre, Centre for Sport and Fitness, on-site cafes and bars dedicated to UCBB students, the Science Centre, the University Centre, as well as plenty of study spaces and social areas.*

*Our fitness facilities in the Centre for Sport and Fitness boast a 40-station high specification gym, weights area, two strength and conditioning suites and eight high grade changing rooms. Students can make the most of the discounted membership, giving you access to numerous one-to-one activity classes, such as boxing, as well as group classes like yoga. We also have an eight-court sports hall, including netball, basketball, badminton, football and soft tennis courts, and a professional aerobics and dance studio, complete with sprung floor, and on campus physiotherapy professionals.*

*Digby Watts Café Bar is our exclusive catering facility for UCBB students and college staff. This cosy café is the perfect place to catch up with friends, get stuck into an assignment or take a break with a good book. It offers a range of hot and cold drinks and food, with vegan and vegetarian options.*

*The University Centre Lounge is a dedicated social and study space for higher education students. With cosy chairs and sofas, this light and airy space is the ideal place to catch up with friends over a hot drink, relax in between seminars or get your head down and study. You will find TVs, a drinks machine and work spaces with charging ports, along with free WiFi.*

*Whether you choose to live on campus in our on-site accommodation, or travel in from home using our extensive travel network across the region, you will find everything you need for an enjoyable and successful experience at UCBB.*

## **6. Student Skills and Support**

*Studying at degree level requires key academic skills such as critical thinking, analysis and problem-solving. You will need to learn how to navigate the Learning Resource Centre, develop your IT skills and refine your study skills such as note-taking, revision, independent study and research, and personal skills such as time-management, motivation and self-reflection. You will be embarking on a journey not only to a qualification, but to enhancing your future career prospects. Throughout your programme you will be supported in building these skills within your taught sessions and via online resources, induction sessions, academic development seminars, employability week, the Careers Service, the HE Study Skills Team and the Life Coaches Team.*

*The HE Study Skills Team provides:*

- *Informal study skills support for all HE students.*

- *Specialist support for those with a diagnosed specific learning difficulty e.g. dyslexia. This support can be booked on a 1:1 basis, via drop-in or remotely (online).*
- *A range of resources such as PDF links to a variety of study skills topics, for example, referencing.*
- *Support around Successful Online Study, as well as a monthly newsletter, with hints and tips to help you achieve.*
- *A Study Skills course is available to all new HE students, easing the transition from level 3 to provide you with the skills required for HE study.*
- *Equipment such as overlays for visual stress (Meares-Irlen syndrome), Dictaphones and TextHelp 'Read and Write Gold', available to all students on campus.*
- *Information on the application process for Disabled Students Allowance (DSA).*

*If you have any questions you would like to ask the team prior to application please contact them on [HEStudyskills@bishopburton.ac.uk](mailto:HEStudyskills@bishopburton.ac.uk).*

*The Life Coaches Team can help you discover the best you. They can provide support across a wide range of life skills including:*

- *Emotional and behavioural: helping you to understand and overcome personal barriers so you can achieve your full potential.*
- *Mentoring and coaching: individual support programmes, tailored to specific needs.*
- *Social engagement and interpersonal: career coaching to help develop confident, professional and industry ready individuals, who are armed with the interpersonal skills to engage in the professional world.*
- *Health, wellbeing and resilience: focus on all aspects of physical and mental health and wellbeing to develop resilience and life skills and life balance.*

## **7. Fees, Equipment and Additional Costs**

- *For up to date information on tuition fees and financial support please visit: <https://www.bishopburton.ac.uk/university-centre/finance>*
- *You will need to buy a white college laboratory coat for laboratory practicals available via the college online shop. Practical yard equipment required includes; riding hat (PAS015), gloves, boots, dark trousers/ jodhpurs, dark waterproof coat.*
- *You will need to purchase stationery, text books and any additional qualifications such as BHS stages.*
- *Trips and short courses may also be offered at extra cost.*

- A suitable electronic device e.g. a laptop or tablet, with internet connectivity is required for accessing online learning.
- On successful completion of the programme, you have the opportunity to graduate at a ceremony wearing formal dress. The hire of the formal dress is an additional cost.

## 8. Graduate Opportunities and Progression

### 8.1 Graduate Opportunities

Students graduating from this programme could follow careers within the equine industry or wider biosciences. Examples of these careers include: independent nutritionist; nutritional adviser; assistant or operative in an equine health and welfare setting; laboratory technician or feed analyst.

### 8.2 Progression

The programme is also designed to enable you to progress to postgraduate level including MSc, MRes, PGCert, PGDip, PhD.

## 9. Contact Us

If you have any further questions please do not hesitate to contact the Recruitment Team.

Telephone	01964 553000 Choose the Recruitment Team option
Email	<a href="mailto:enquiries@bishopburton.ac.uk">enquiries@bishopburton.ac.uk</a>
Address	University Centre Bishop Burton York Road Bishop Burton HU17 8QG

The information in this guide is correct at time of publication. Any amendments to the content of the programme and modules will be made formally through a modification process with the awarding body. Changes will usually only be made to improve the existing provision for example in response to changing industry requirements. Any changes will be communicated to applicants/students as soon as they have been formally approved.