



BSc (Hons) Equine Health and Nutrition

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	Riseholme

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: www.ucas.com
Course Code	D4R7
Institution Code	B37
Campus Name	Riseholme
Campus Code	R

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 & Professional Skills (15)	Introduction to Research Skills (15)
Equine Health & Husbandry (15)	Scientific Principles & Laboratory Skills (15)
Grassland Management & 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 & Analysis (30)</i>	
<i>Equine Exercise Physiology (15)</i>	<i>Enterprise & Entrepreneurship (15)</i>
<i>Equine Rotation Formulation and Micro-Nutrition (30)</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 & 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 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>	13	25-30
<i>Delivery includes:</i>	<i>Lectures, seminars, laboratory practical sessions. Sessions may be delivered in person or using remote platforms.</i>	<i>Reading around the subject, preparing for seminars and practical sessions, 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.

The Learning Resource Centre (LRC) at our Showground campus is a hub of physical and online resources. With over 32,000 items available to loan, the LRC provides access to over one thousand journal titles from a range of databases, specialist collection journals and hundreds of eBooks. Laptops and PCs are available to borrow or pre-book, with free wifi across both of our campuses. Need a hand? Our friendly and knowledgeable staff are available to help.

The LRC opening hours are:

Monday: 8.30AM – 5.00PM

Tuesday: 8.30AM – 5.00PM

Wednesday: 8.30AM – 7.00PM

Thursday: 8.30AM – 7.00PM

Friday: 8.30 – 5.00PM

Saturday: 9.00AM – 2.30PM

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.

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, logbooks/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 Extra-Curricular Work Experience

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

5. Facilities

Nestled in the Lincolnshire countryside, just outside of Lincoln, Riseholme College encompasses the Riseholme Park campus and Showground campus, just two miles away from each other.

The equine facilities have benefited from investment recently to ensure suitability to delivery both theoretical and practical concepts with ease, accompanied with a breadth of current equipment for field and laboratory-based research projects.

Equine facilities consist of two American barn stable blocks including rider fitness suite, loosebox DIY livery yard, indoor and outdoor arenas, cross country course and off-road hacking tracks.

Equipment integrated into teaching and learning have collectively seen staff and student research be published and presented with peer reviewed journals and national and international industry conferences.

The state-of-the-art teaching laboratories which have been developed in conjunction with industry consultation, in particular the microbiology laboratory, further ensure excellent support for student project work.

Our Showground Campus includes classrooms, science labs, an animal management facility, agriculture and engineering workshops, a learning resource centre, refectory and student services office. We have a Sport and Health Science Centre, complete with gym, multi-use sports hall and 3G flood-lit pitch, and an Agri-Tech, Health and Nutrition Centre.

If you need advice on finance and bursaries, information about travel or how we can support your mental health, Student Services is your one-stop-shop.

In addition, Riseholme's status as a centre of excellence for high level skills training as part of the government's multi-million-pound Institutes of Technology (IoT) initiative is generating further investment in facilities and resources.

Such facilities give us the platform to deliver an unrivalled range of hands-on, practical courses which give our students the skills and knowledge they need to succeed.

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.

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.riseholme.ac.uk/degree/finance>

- You will need to buy a white college laboratory coat for laboratory practical sessions 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.

<i>Telephone</i>	<i>01522 304600</i>
<i>Email</i>	<i>enquiries@riseholme.ac.uk</i>
<i>Address</i>	<i>Showground Campus Horncastle Lane North Carlton LN1 2ZR</i>

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.