HARTPURY

BSc (Hons)

Equine Science (with Foundation Year)

UCAS Code: **DF34**

Typical offer: **32-48 UCAS tariff points or equivalent**

Duration: **4 or 5 years full time; part-time available**

Placement year: **Optional**

Awarding body: **Hartpury University**

Apply for this course here: https://www.hartpury.ac.uk/university/courses/undergraduate/bsc-hons-equine-science-with-foundation-year/bsc-hons-equine-science-with-foundation-year-2023/

OVERVIEW

Course overview

If you're fascinated by the horse as an athlete and want to learn more about how these incredible animals work, then this is the course for you.

The foundation year entry provides an alternative route into degree-level study. It's ideal for those who need to develop their knowledge of biology or study skills in order to progress onto the full BSc qualification.

You'll study a broad range of equine science topics, with options to tailor your learning to a number of interests and career pathways.

You don't need to ride - all you need is a passion for horses and science, which you want to apply within the equine industry.

You'll benefit from world-class facilities including our Equine Therapy Centre, industry-standard science labs and 230 horses on campus, while you study how the horse's body works, developing expertise in exercise anatomy and physiology and the impact that exercise has on the horse.

This applied science degree combines theory with practice, enabling you to develop in-depth knowledge and skills.

You'll hear from leading industry and research experts and strengthen your learning through practical application and field trips. You'll also have the opportunity to study a semester of your degree overseas.

WHAT YOU'LL STUDY

What you'll study

This degree covers a wide range of equine science topics through compulsory and optional modules, which you'll be able to choose from to suit your interests and career goals.

Core topics will cover anatomy and physiology of the horse and exercise physiology.

Optional modules will allow you to specialise your degree to suit your interests and career goals. They change each year in line with student, industry and research demands - you'll find recent topics studied below. You can attend introductory sessions for optional modules before deciding which ones to study.

Level three foundation year (year one)

Your foundation year will allow you to develop study skills and specific knowledge around biological science. This will support you moving into year one. In addition, you'll be introduced to equine science and begin to explore the equine industry.

COMPULSORY MODULES

Academic Skills in Practice (Internship)

Undertake an internship role at Hartpury, linked to the programme of study, to develop reflective, practical and transferable skills in preparation for level four study.

Foundation Biological Principles

Study fundamental biological aspects to gain a clear understanding of how organisms come about and how they function and operate for survival and performance.

Foundation Equine Studies

The module aims to introduce the central anatomy, physiology, welfare and health that underpin best husbandry and management practices, along with key legislation and health and safety requirements in the equine industry.

Foundation Skills Development

Acquire an understanding of the scientific method and enquiry, team working, research skills and effective time management.

Reviewing Literature

Develop your understanding and knowledge of literature reviews including constructing a rationale, summarising and presenting relevant information to suit a purpose, subject and audience.

OPTIONAL MODULES

Optional modules

There are no optional modules during this year. Your learning is focused on compulsory modules to ensure you have a thorough understanding of key topics to prepare you for module choices in your subsequent years.

Level four (year two)

This year will focus on fundamental topics relating to the horse, with an introduction to key topics such as anatomy and veterinary science through to nutrition and the equine industry itself. Each module aims to give you the fundamental skills to study at higher levels and give you practical skills for the future.

COMPULSORY MODULES

Equine Functional Anatomy

Learn about the biological systems of the horse, how they interact and how they can be managed.

Equine Industry

Discuss the scope and management of the equine industry in the UK and Europe.

Fundamental Skills for the Equine Scientist

Get to grips with the basics of data analysis, key laboratory practices and safety procedures.

Introduction to Equine Nutrition

Study the basic principles of equine feeding and nutrition.

Equine Veterinary Science

Understand the balance between health and disease, and apply management and control theories to practical situations.

Equine Genetics

An introduction to genetics and its role within the equine population.

OPTIONAL MODULES

Level five (year three)

Explore your chosen topic areas in more detail during this year, applying knowledge you have to date to investigate more complex concepts with the support of your tutors.

Alongside your core modules around topics such as equine nutrition and physiology, you'll start tailoring your degree to individual areas of interest with the use of exciting and varied option modules. For example, you might be interested in exploring areas such as equine behaviour or stud management.

COMPULSORY MODULES

Equine Exercise Physiology

Equine Exercise Physiology explores the range of short-term physiological responses and the long-term
physiological adaptations that equine body systems undergo during various intensities of exercise and
training. The module considers how this might be used to optimise training for improved performance,
delayed fatigue, and a reduced risk of injury.

Equine Nutrition

Explore the horse's digestive system, their required nutrient intake for different activities and how to manage a horse's diet.

Research Methods for Equine Science

This module introduces students to research methods and analysis in equine sciences, helping to prepare
them for reading research literature and conducting research projects in the future.

Equine Disease

This module covers immunological concepts and pain physiology in the context of equine diseases and
disorders, including infectious and contagious conditions and associated biosecurity protocols.

Equine Reproductive Physiology

Students will cover equine reproductive anatomy and physiology concepts and consider how these
influence successful management of breeding and non-breeding horses

OPTIONAL MODULES

Animal Microbiology

This module will also provide students with the opportunity to develop clinical awareness of animal behaviour and develop skills to interpret behavioural expression during patient interactions.

Equine Musculoskeletal Diagnostics

Students will learn about diagnostic procedures used by vets for common lameness conditions.

International Stud Management

This module allows student to gain an understanding of stud management when breeding Thoroughbreds or Warmbloods, and challenges this involves. The module combines the application of scientific principles to the required decision making and actions during the annual stud cycle.

Introduction to Equine Behaviour

Develop an understanding of behaviour of horses and the neurological pathways resulting in the development of these behaviours.

Introduction to Equine Biomechanics

Introduction to Equine Biomechanics aims to create a solid foundation of understanding of the key biomechanics concepts applied to equine and equestrian examples.

Placement year (optional)

An optional integrated placement year before your final year allows you to put your knowledge and skills into practice and gain valuable industry experience. Many students get their graduate careers with the organisation with which they completed their work placement.

Level six (final year)

In your final year, contemporary challenges and developments within the field of equine science will feed into the various modules that you take, stimulating you to develop your critical thinking further.

Through optional modules, you can focus on your main areas of interest, which will support you in your future career. The dissertation module will allow you to complete a substantial research project, allowing you to plan, implement and report on a specialist topic.

COMPULSORY MODULES

Undergraduate Dissertation

Carry out independent research and analysis in a related area of your choice.

Developments in Equine Research

Investigate advances in equine research and its application to the equine industry.

OPTIONAL MODULES

Advanced Animal Microbiology

Advanced Animal Microbiology builds on the knowledge and understanding obtained from the Animal Microbiology module at level 5. This module analyses a range of biotechnologies and diagnostics used in the study of animal microbiology, providing students with an in-depth understanding of the underlying principles behind these advanced techniques. Students will evaluate current developments in microbial molecular genetics and how this research is applied to advance treatment and control strategies in veterinary science.

Applied Equine Biomechanics

The Applied Equine Biomechanics module utilises the University's Rider Performance Centre and biomechanical analysis resources to support students in applying and implementing biomechanical principles and theoretical concepts to practical research and industry scenarios.

Equine Nutrition for Performance

Evolution of feeding strategies to support athletic performance in the horse, whilst maintaining good health.

Equine Sports Medicine

Review and evaluate equine sports injuries and exercise intolerance and associated treatment options.

Equine Therapy and Rehabilitation

This module appraises current research and practice in complementary therapy and rehabilitation for equine orthopaedic conditions.

Pharmacology

Pharmacology covers the pharmacokinetics and pharmacodynamics of common drug classes used in veterinary species. The module also examines topics such as resistance and residues, as well as controlled drug prescription, storage and disposal requirements.

Please visit our document library for more module information.

HOW YOU'LL STUDY

How you'll study

We're committed to supporting you to fulfil your unique potential, which is why you'll receive a minimum of 15 hours of scheduled teaching time per week in your first year - this is 25% above the UK average.

Your support network

You'll benefit from a strong support network from day one to be the best you can be. This will range from your personal tutor and specialist academic support team (our Achievement and Success Centre) to dedicated wellbeing and employability (Innovation, Careers and Enterprise) centres.

Your learning experiences

You'll experience a range of teaching methods to strengthen your digestion of topics, including lectures, workshops and practical sessions, as well as supported work placement learning as part of many courses.

Your career

Each year of your course will be made up of two semesters, within which you'll study compulsory and optional modules on different industry-focused topics, enabling you to develop your own

unique portfolio of knowledge, skills and experience, ready for your career.

Further details

+ Academic support

You'll have your own personal tutor while you're here who will support you to succeed in your studies. You'll also have access to our academic and wellbeing support teams who run regular workshops and one-to-one sessions on campus and online.

Alongside this, we have a comprehensive bank of online study skills resources to help you make the most of your qualification.

+ Module credits

On successful completion of your modules you'll gain academic credit that accumulates towards your award. The marks you gain in your final two years may contribute towards your final degree classification.

+ Teaching modes

The modules contain a mixture of scheduled learning and independent learning. Scheduled learning can consist of lectures, seminars and practical sessions, allowing for the application of theory in different formats. You'll be expected to dedicate at least two to three hours of independent study per contact hour.

The foundation year includes an internship using Hartpury's on-site facilities and industry links.

The course is taught in English.

Year	Contact learning	Independent learning	Placement learning
Level three (year one)	30%	70%	0%
Level four (year two)	27%	73%	0%
Level five (year three)	24%	76%	0%
Placement year (optional)	1%	19%	80%
Level six (final year)	18%	82%	0%

+ Teaching contact time

You'll receive a minimum of 15 hours scheduled contact time per week in your first year. In subsequent years, scheduled contact will vary depending on the modules you select but is typically around 12 hours per week.

− Assessment and feedback

You'll be assessed through a mixture of written exams, practical exams and written assignments. Many of the modules will be marked based on a mixture of assessment types, whilst others will be based solely on one type of assessment. Feedback will be given via a mixture of written bullet point-style feedback and/or oral feedback.

Year	Written exam	Practical exam	Coursework
Level three (year one)	28%	44%	28%
Level four (year two)	44%	50%	6%
Level five (year three)	50%	38%	12%
Placement year (optional)	0%	0%	100%
Level six (final year)	19%	31%	50%

+ Timetables

Each year of this course is taught over two semesters, normally consisting of 12 weeks of scheduled teaching and then assessment weeks, with an overview below:

- scheduled teaching takes place between 8:30 to 20:30 Monday to Friday
- Wednesday afternoons are normally reserved for sports and cultural activities
- work placements may entail different days and hours
- part-time students may need to attend learning activities five days each week, depending on modules selected
- Timetables are available during enrolment week

View term dates ▸

EMPLOYABILITY

Your career

Industry opportunities on this course are diverse to ensure you develop the skills, experience and connections needed for your graduate career. Many of our students secure graduate roles with their work placement employers.

Work placement opportunities

As part of the foundation year, you'll be required to complete a short internship. This will allow you to apply skills and knowledge gained from the module into practice. Normally, this internship is undertaken at Hartpury, allowing you to make use of our on-site facilities, such as the Equine Therapy Centre.

With the optional integrated placement year before your final year, you'll have the opportunity to gain valuable industry experience. We'll support you to secure a placement with a UK-based or international employer, to match your interests and career goals.

Placements can be paid or unpaid, depending on the position. Students have previously worked with organisations such as the Royal (Dick) School of Veterinary Studies (University of Edinburgh) and pharmaceutical companies. Others decide to gain experience through their own relationships further afield.

Through the support of our ICE department and your tutor, we will support you to secure a placement to match your interests and career goals.

Our commercial Equine Therapy Centre also offers opportunities to gain industry experience – either on work placements or in a voluntary role.

Guest lecturers and field trips

Industry professionals form an important part of your learning, enabling you to experience different businesses and careers. Recent guest lecturers have included professionals from equine nutrition companies, such as Baileys Horse Feeds and Saracens Horse Feeds, Three Counties Equine Hospital, and equine charities, such as Horse World.

Field trips are also used to enhance your learning experience. Recent field trips included visits to Lambourn Equine Vets and the KWPN Stallion Grading in Holland.

Study internationally

Our Study Abroad programme means you can make the most of opportunities to study a semester of your degree at one of our partner institutions, while achieving credits towards your degree. Many students choose to study at Deleware University in the USA.

Discover Study Abroad ▸

Graduate destinations

As an equine science graduate, the career opportunities are diverse. You may go on to work for equine charities, nutrition companies, governing bodies within the wider equine industry or progress into further postgraduate study. Our careers team can support you to find and prepare to secure your perfect role.

Recent graduate destinations have included:

- Welfare Research Officer, Horse Trust
- Nutritionist
- Lab technician roles
- Technical Policy Advisor, Home Office
- British Horseracing Authority Graduate Scheme
- Postgraduate Study – MSc Equine Science, MRes Equestrian Performance, PhDs

FACILITIES

World-class facilities

You'll have access to a diverse range of facilities while you're here, many of which are newly built and world class. Alongside lecture halls and workshop spaces, these include:

Equine Therapy Centre

The Equine Therapy Centre is home to state-of-the-art equipment including a Sato high-speed treadmill and an Aquafit water treadmill. You'll have the opportunity to gain industry experience working alongside the therapy team. The facilities are also used as part of teaching, providing opportunities for demonstrations and data collection during research projects.

Margaret Giffen Rider Performance Centre

Our Margaret Giffen Centre for Rider Performance is the most advanced rider performance centre in the world at an academic institution. The centre includes a state-of-the-art gym facility as well as our unique racing and eventing simulators.

Commercial yard

We have a large commercial yard with stabling for 230 horses, including 125 boxes for student livery. We take horses on a loan basis, which are used during the semesters for educational and teaching purposes. This provides you with the opportunity to apply theory to practice in topic areas such as behaviour, nutrition and exercise physiology.

Laboratories

Our laboratories are modern and well-equipped, providing the ideal spaces for scientific activities and research. Some are used for specialist microbiological culturing and analysis, others for

biochemistry and physiology.

Study spaces

Our University Learning Centre has books, journals, ebooks, computers and breakout study spaces. In addition, we have a Study Lounge – an informal space with sports equipment, study booths and chill-out spaces to support both studying and relaxation.

ENTRY REQUIREMENTS

Entry requirements

- **UCAS** | A typical offer for this course is 32-48 UCAS tariff points or equivalent.
- **GCSE** | A minimum of five GCSEs at grade 9 to 4, (or A* to C grades if relevant) or equivalent, to include English Language and Mathematics.
- **A-level** | Typical offer is EE-DD or equivalent. This must include a minimum of two A-levels.
- **Vocational Award** | Typical offer is a PPP in an Extended Diploma in a relevant subject.
- **Access** | Typical offer is 32-48 UCAS tariff points in an Access to Higher Education Diploma.
- **IB** | Typical offer is 32-48 UCAS tariff points in an IB Diploma, to include a minimum of one Highers at H3 or above.
  This must also include Maths and English Language at a minimum of Standard Level S3 if equivalent GCSEs have not been obtained.
- **Scottish Highers** | Typical offer is 32-48 UCAS tariff points in Scottish Highers. This must include a minimum of one Advanced Higher.
- **Irish Leaving Certificate** | Typical offer is 32-48 UCAS tariff points in the Irish Leaving Certificate. This must include a minimum of one Highers. This must also include Maths and English Language at a minimum of Ordinary Level.
- **OCR Cambridge Technical** | Typical offer is a PPP in a Cambridge Technical Extended Diploma in a relevant subject.
- **T Level** | Typical offer is Pass in your T Level overall grade in a relevant subject.
- We welcome students with equivalent qualifications. Contact the admissions team to discuss further.
- We may interview mature applicants and those with non-traditional qualifications to ensure this is the right course for you.
- Previous learning towards a university-level qualification or relevant work experience may count as credit for this course.

- Please contact us for further information:

Email us ▸

FEES AND FUNDING

Tuition fees and financial support

Please visit our student finance page for information on tuition fees and student loans, as well as non-repayable grants, bursaries and scholarships, eligible to different groups, to support with study costs.

Explore student finance ▸

Below, you'll find extra costs associated with studying this course.

Clothing and footwear (circa £100)

You'll need some specialist kit and clothing for the course, such as yard boots, riding hats and gloves to be prepared for your practical sessions. We'll let you know exactly what you need to bring before enrolment.

Hartpury University branded clothing is also available through our online shop, for those who wish to purchase it. However, this is not essential.

Visit Hartpury shop ▸

Optional field trips (up to circa £500)

You'll be encouraged to engage in various trips and visits as part of the course. These are often included as part of the modules. There's also the opportunity to engage in additional study trips, which would incur minimal fees relating to travel and/or expenses.

Optional semester abroad

You'll have the opportunity to take an optional semester abroad in your second year. This will incur additional travel costs.

Accommodation and living costs

Please visit our student accommodation page for details.

Explore accommodation ▸

Livery

We have stabling for 230 horses on campus. If you're interested in having your horse at Hartpury on DIY livery while you study, please visit our livery page for details and costs.

Livery options ▸

Equine Academy

If you have the talent and drive to develop your skills as an equestrian athlete alongside your studies, you may be eligible to join our Equine Academy. For further details including costs, please visit our Equine Academy page.

Visit Equine Academy ▸

Top 20

We're in the Top 20 UK universities for teaching quality (The Times and The Sunday Times Good University Guide, 2022)

Top 10%

We're in the top 10% of UK providers for student satisfaction (NSS, 2020)

96%

of graduates are in employment, further study or other purposeful activity (Graduate Outcomes, 2021*)

HOW TO APPLY

You can apply for the BSc (Hons) Equine Science degree via UCAS.

FURTHER COURSE DETAILS

For further details about this course, including the programme specification and module descriptions, please visit our document library.

Important information

Every effort has been made to ensure the accuracy of our published course information, however our programmes are reviewed and developed regularly. Changes or cancellation of courses may be necessary to ensure alignment with emerging employment areas, to comply with accrediting body requirements,

revisions to subject benchmark statements or as a result of student feedback. We reserve the right to make necessary changes and will notify all offer-holders of changes as and when they occur.

*Reflects activities after 15 months for those who graduated in 2019.

CONTACT US

ADDRESS

Hartpury University and Hartpury College
Gloucester
GL19 3BE

- https://www.facebook.com/hartpury
- https://twitter.com/hartpury
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