

Equine

Writtle College is one of the oldest providers of specialist equine study and research in the UK and is known for its innovative and pioneering approach to course development. Postgraduate opportunities for equine professionals are developed through close liaison with successful figures in industry and academic experts at the University of Essex.

Postgraduate study programmes

The Equine department offers three postgraduate awards, Equine Science, Human and Equine Sports Science and Equine Sports Therapy. These courses have been designed to provide postgraduate students with an advanced understanding of the intrinsic problems related to the industry. All are available on a full and part-time basis. In the case of the MSc Equine Science both the full and part-time routes are weekend based.

Topic areas can be pursued by research, leading to an MSc, MPhil or PhD. For example in the case of the MSc Equine Science by research this would involve undertaking a major student-managed research project. The department would strongly encourage any postgraduate student who wished to undertake an award by research.

The University of Essex

The MSc in Human and Equine Sports Science, which is taught in conjunction with the University of Essex, is the result of the growing collaboration between Writtle College and the University. Links with the University of Essex have developed extensively in recent years and, in addition to the quality assurance of the College's courses which are validated through the University, departmental staff also cooperate in research and teaching activities.



Programme highlights

In-depth research into different aspects of the equine industry is a key feature of the postgraduate equine study programmes at Writtle College. Regular research presentations from external experts ensures that students have access to current thinking and 'cutting edge' methodologies.

Previous speakers include:

- Professor Don Broom, Colleen Macleod Professor of Animal Welfare at the University of Cambridge.
- Dr Colin Roberts BVSc, PhD, FRCVS, RCVS specialist in Equine Internal Medicine at the University of Cambridge.
- Dr Pat Harris MA, PhD, VetMB, MRCVS, Equine Studies Group, Waltham Centre for Pet Nutrition; Adjunct Professor of Equine Studies at the Virginia Polytechnic Institute and State University.

- Dr Duncan Hannant BSc (Hons), MSc, PhD, MIBiol, Cbiol, Head of Immunology and Research Coordinator at the Animal Health Trust, Newmarket.
- Dr Derek Knottenbelt DVM&S, BVM&S, DipECEIM, MRCVS, Senior Lecturer (Medicine) at the Liverpool Veterinary School.

An all-round supportive and stimulating study environment ensures that students maximise the time spent in classroom sessions in preparation for pursuing their own particular interests through self-directed study.

Equine research programmes

Postgraduate teaching in the Equine department is supported by a number of ongoing research programmes, which are coordinated through the College's Centre for Equine and Animal Science and in collaboration with other institutions. Research has focused on the improvement of the welfare, breeding and management of the horse through the application of sound scientific research principles. Main areas of research include:

- The effect of stable design on behavioural measures of the welfare of the horse. In particular, this study focuses on factors such as all-enclosed 'American Barn' yards versus traditional-style yards with looseboxes overlooking a central courtyard, effects of type of bedding, and proximity of, and access to, other horses.
- Means of enrichment of the stable environment, such as provision of toys, feed blocks and manipulation of other management factors. These studies investigate the effect of such procedures on the behaviour and welfare of the confined horse.
- The effect of controlled breeding practices on the behaviour and welfare of mares. This field study evaluates the effect of teasing and common restraint procedures on behavioural indicators of the welfare of mares, as well as effects on reproductive performance.
- Equine learning behaviour, particularly the learning of operant tasks and the effect of social factors.
- Equine ingestive and grazing behaviour and its effect on the development and maintenance of grass sward.
- Efficiency of nutrient utilisation in conventional and novel feedstuffs.
- Development of breeding strategies for the British Sports Horse.
- Use of hair clippings to identify drug administration history in horses. In order to validate this technique, fundamental research on the effect of breed type and environmental factors on tail and mane hair growth has been conducted.
- Management of horse pasture in relation to improving its utility, efficiency and appearance.
- Equine kinematics analysis of gait.



MSc Equine Science

Postgraduate Diploma in Equine Science

Postgraduate Certificate in Equine Science

Who is the course for?

This course is ideal for those in the equine industry wishing to enhance their career potential and knowledge of the intrinsic problems that can occur within such a diverse industry. Applicants will normally hold at least a second class degree in equine studies/science or a related biological science degree. Applicants holding other qualifications will also be considered.

Course aims

This scheme will provide students with:

- A focus on research methodology, application and critical evaluation to encourage the development of further expertise in selected aspects of equine study.
- An advanced understanding of the biological and physiological systems of the horse.
- The ability to identify acceptable husbandry practices for a range of equestrian disciplines through a knowledge of the nutritional and environmental requirements of performance horses.
- An understanding of the horse as an athletic, competition and breeding animal in the context of the equine and ancillary industries.

Duration

This course is delivered over one year on a full-time basis or over two years on a part-time basis. Full-time students are taught over 16 weekend blocks. Part-time students are taught over seven weekend blocks per academic year.

Delivery and assessment

Teaching methods for this programme will be a combination of lectures, workshops, seminars, tutorials, visits, case studies and student-managed learning. To make sure that students take full advantage of the open access study facilities at the College, the self-guided study aspect of the MSc Equine Science programme is supervised by academic staff. Students will be offered advice and guidance so that they devise a learning strategy appropriate to their needs and lifestyle. It is also recognised that in the case of part-time students, some additional study support may be required outside of course attendance. This may be by email, telephone or individual tutorial.

Assessment is through a combination of course work in the form of critical, evaluative research essays, oral presentation, unseen written examinations and a dissertation. The dissertation is undertaken over the spring/summer period for full-time students and over the final year for part-time students, under staff supervision. It consists of a scientifically-based piece of research (max. 25,000 words) on issues within equine science. Students who choose to conduct their dissertation at an external organisation, must have access to the same level of facilities and support as students conducting their projects at the College.

Students will study the following modules:

- Breeding Strategy and Reproductive Technology
- Sports Medicine and Performance
- Equine Exercise Physiology
- Equine Ethics and Welfare
- Behaviour
- Equine Nutrition
- Equine Health
- Research Methods
- Dissertation

Key features

- Unique blend of in-house delivery from outside speakers involved in 'cutting edge' research.
- Overview of the global equine industry.
- Development of research and statistical interpretation skills.
- Emphasis on critical evaluation of current and established research practices.

Career prospects

Upon successful completion of this course, graduates will be able to undertake research in equine and other animal sciences. Graduates will also be able to lecture in equine/animal science or work in equine nutrition, equine/animal product development, product marketing and sales, or the equine breeding industry.

MSc Human and Equine Sports Science

Postgraduate Diploma in Human and Equine Sports Science
Postgraduate Certificate in Human and Equine Sports Science

Who is the course for?

The aim of this course is to provide graduates from a variety of disciplines with an advanced understanding of equine and human exercise science through the study of biological and physiological systems. Applicants will normally hold an Honours degree (2.2 or above) in physical education, physiology, biochemistry, biological science, anatomy, sports medicine, recreation and leisure management, or any equine studies/science or allied subjects. Professional qualifications may also be acceptable and every application will be considered on its individual merits.

Course aims

Students who complete this programme will be able to demonstrate:

- Knowledge of the fundamental concepts of human and equine sports science.
- A clear understanding of contemporary debates about the impact of exercise on the performance, fitness and health of human and equine athletes.
- The ability to formulate and undertake research into specific industry areas.
- A range of key skills in information retrieval, communication, analysis and data interpretation.

Duration

The MSc is delivered in conjunction with the University of Essex over one year on a full-time basis or over two years on a part-time basis. Part-time students are taught over seven weekend blocks and one extra day per week. They also receive additional distance support.

Delivery and assessment

Teaching takes place at the University of Essex on Tuesdays and Thursdays for the full-time degree and will alternate annually between these days for the part-time degree. All modules taught at Writtle College will take place at weekends. Teaching methods will be a combination of lectures, seminars, tutorials, case studies and student-managed learning. The self-guided study aspect of the course will be supervised by an academic member of staff to ensure that students take full advantage of the open-access study facilities at both Writtle College and the University of Essex.

The course consists of six taught modules, two self study dissertations (8,000 words) and a masters stage research project. Only one dissertation is compulsory, which means that students can choose to write the second dissertation or take an additional optional taught module instead. The

research project (14,000 words maximum) is normally carried out over the summer vacation and submitted by 1st September.

Students will study the following core modules:

- Dissertation

At Writtle College:

- Exercise Physiology, Sports Medicine and Performance
- Research Methods
- Literature Review

At University of Essex:

- Fitness Assessment

Two must also be chosen from the following optional modules:

At Writtle College:

- Ethics and Welfare
- Equine Nutrition
- Equine Health

At University of Essex:

- Human Nutrition
- Human Sports Medicine
- Psychology of Sport
- Biochemical Aspects of Exercise and Sport

Key features

- Focus on the scientific principles underpinning human and equine athletic performance.
- Excellent sports science facilities including an exercise laboratory and fitness training testing laboratories.
- The Centre for Sports and Exercise Science at the University of Essex received a maximum score of 24 in a recent assessment carried out by the Quality Assurance Agency for Higher Education (QAA).
- Regular lectures and presentations by equine science experts.
- Equine Training and Development Centre with 40 horses and a working stud.

Career prospects

Upon successful completion of this course, graduates will be able to undertake research in biological science and physiology. Graduates will also be able to lecture in equine and sports science, become a health and fitness practitioner/professional, take up positions in recreation and leisure management, or work in equine nutrition or equine product development.

MSc Equine Sports Therapy*

Postgraduate Diploma in Equine Sports Therapy*

Postgraduate Certificate in Equine Sports Therapy*

*Subject to validation

Who is the course for?

This advanced programme is intended for those who wish to combine the theoretical teaching aspects of Writtle College with the professional skills of Equinenergy Ltd. It is anticipated that the programme will produce professional massage therapists with a postgraduate qualification and also a professional qualification as a Level 2 Body Worker.

Applicants would normally hold at least an Honours degree (2.2) in a relevant subject although other degrees and professional qualifications will be considered. In addition an approved Equine Sports Massage qualification, for example the Equinenergy Foundation Massage course, would be required.

Course aims

This course will enable students to:

- Become familiar with and competent in academic and practical approaches to Equine Sports Therapy and provide them with a wide perspective from which to analyse current issues in this area.
- Develop an understanding of the need for both a multi-disciplinary and an interdisciplinary scientific approach to the study of sports therapeutics and an ability to integrate this knowledge.
- Develop an ability to evaluate the effects of sports therapy and exercise intervention on the athletic ability of the horse with reference to performance enhancement and sports rehabilitation.
- Develop an ability to use appropriate statistical procedures that are relevant to the scientific study of equine sports therapy and to plan and carry out "library" and practical research in the development or application of equine sports therapy.
- Develop a range of transferable skills such as communication, numeracy, IT use, problem solving, self-evaluation and self-improvement, and autonomous learning using equine sports therapy as the context and focus.
- Encourage students to develop their knowledge of and skills in therapeutic theory and application in order that they are able to pursue a career in equine sports therapy.

Duration

This programme will be delivered over two years on a part-time basis.

Delivery and assessment

Teaching methods for this programme will be a combination of lectures, workshops, seminars, tutorials, practicals, case studies and student-managed learning. Students will be offered advice and guidance in order that they devise a learning strategy appropriate to their needs. It is recognised that in a part-time programme such as this, additional study support may be required outside of course attendance. This may be by email, telephone or individual tutorial.

Assessment is through a combination of course work in the form of critical evaluative research essays, oral presentations, unseen written examinations and a dissertation. There is also significant assessment of advanced practical application.

Modules of study include:

- Advanced Massage and Clinical Assessment
- Equine Exercise Physiology
- Intensive Equine Anatomy
- Biomechanics, Sports Medicine and Performance
- Neurology
- Behaviour and Neuromuscular Rehabilitation
- Masters Stage Dissertation
- A variety of options

Key features

- The key feature of this programme is the combination of theoretical and professional approaches.
- The use of "cutting edge" academic and professional practitioners.
- Emphasis on critical evaluation of current and established research practices.

Career prospects

Upon successful completion of this course, graduates would be in a position to seek employment as professional equine massage therapists. However, general careers in research, education, and equine product development would clearly be open to graduates.