Programme Specification

MSc Applied Equine Science
PROGRAMME SPECIFICATION

MSc Applied Equine Science

NB
The information contained in this document is intended only as a guide to the programme. It does not constitute a legally binding document or contract between the individual and the Royal Agricultural University.

The information contained herein is correct at the time of going to print, but the University reserves the right to make changes to the structure of the programme, assessment methods, etc. at any time without prior notification. Any changes made however will be made known as soon as possible.

Programme Manager – Jo Charles

© The Royal Agricultural University, July 2014
<table>
<thead>
<tr>
<th>1. Awarding Institution</th>
<th>Royal Agricultural University (RAU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Teaching Institution</td>
<td>Royal Agricultural University</td>
</tr>
<tr>
<td>3. Final Award Title(s)</td>
<td>MSc Applied Equine Science</td>
</tr>
<tr>
<td>4. Academic level on Framework for Higher Education Qualifications (FHEQ)</td>
<td>Level 7</td>
</tr>
<tr>
<td>5. UCAS Code(s)</td>
<td>N/A</td>
</tr>
<tr>
<td>6. Relevant QAA Subject Benchmark Statement(s) and other reference points</td>
<td>Agriculture, Horticulture, Forestry, Food and Consumer Sciences (2009); Biosciences (2007); Psychology (2010)</td>
</tr>
<tr>
<td>7. Details of accreditation by a professional/statutory body</td>
<td>N/A</td>
</tr>
<tr>
<td>8. Mode of study</td>
<td>Full-time, part-time</td>
</tr>
<tr>
<td>9. Language of study</td>
<td>English</td>
</tr>
<tr>
<td>10. Date of production/revision</td>
<td>Date of revalidation: September 2012</td>
</tr>
<tr>
<td>11. Educational Aims of the Programme</td>
<td></td>
</tr>
</tbody>
</table>

It has become increasingly evident that individuals occupying influential positions within the equine industry must have access to, and be aware of the scientific possibilities that exist within the equine sphere. The industry has been deficient in people with a thorough scientific education. This has been addressed to some extent by courses at academic levels 6 and 7, of which many of the latter are HE based in FE institutions. In order that equine production and management can utilise the scientific options open to it, self-motivated and independent learners are necessary to disseminate the depth of scientific research now available in the equine field. Students completing this MSc have gained scientific knowledge, which has been, and will continue to be, of direct use in many equine related areas of employment.

The provision of relevant applied post-graduate education is a core corporate stratagem of the Royal Agricultural University, and reflects the mission of the University and the School of Equine Management and Science in widening participation in higher level learning. The availability of a programme that applies scientific principles into the wider equine industry context, with flexibility within full-time, and part-time routes, has encouraged, and will
continue to do so, a student body from a wide range of backgrounds from recent graduates to mature students, thereby enriching the learning environment.

A student who achieves the award of MSc Applied Equine Science will be able to demonstrate:

- Increased understanding and awareness of the application of scientific principles to the study of equine science
- Ability to relate knowledge of recent research to a variety of practical contexts
- Ability to design a coherent and scientifically robust method for testing a hypothesis related to recognised problem in equine science.
- An understanding of the methodologies used to record and analyse scientific data, and sufficient understanding of equine science to undertake independent research
- Enhanced ability to review and evaluate the work of others and to communicate scientific results and information in research and other forms of debate
- The ability to construct and defend on the basis of evidence, a debate relating to the use horses in sport, leisure, other commerce and research.

The generic educational aims encompass the FHEQ criteria of critical awareness of current applied scientific and veterinary problems in the equine industry, so that Master’s graduates will be able to tackle the solving of such complex problems in systematic, creative and original ways. To this aim students will be encouraged to build upon previous knowledge to obtain a comprehensive understanding of techniques applicable to their own research or advanced scholarship. This development of conceptual understanding will enable the student to:

- evaluate critically current research and advanced scholarship in the discipline of equine science;
- evaluate research methodologies and develop critiques of them leading to the proposition of new hypotheses in the field of equine science.

### 12. Intended Learning Outcomes

#### i. Knowledge and Understanding

The students will be able to demonstrate:

- a systematic understanding of detailed knowledge appropriate to each of the module disciplines relevant to equine science
- an understanding of theoretical basis of research methodologies appropriate to equine science
- knowledge and understanding of recent developments in the field of equine and animal science
understanding of concepts enabling them to evaluate and critique advanced scholarship and methodologies in equine science, and where appropriate, to propose new hypotheses.

ii. Intellectual Skills
The students will be able to:
- interpret data and abstract meaning
- critically analyse literature
- identify and solve problems, dealing with complex issues systematically and creatively
- demonstrate independence of thought, acting autonomously in planning and implementing tasks
- develop skills of critical self reflection, and make sound judgements and conclusions
- demonstrate the skills necessary to plan, conduct and report original research

iii. Practical / Professional Skills
The students will be able to:
- evaluate the work of others
- write for different audiences
- locate and critically appraise data and information from a variety of sources
- produce literature review(s) based on extensive research of published material
- demonstrate originality in the application of knowledge to practical equine situations
- have a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in equine science
- have a critical awareness of current problems and/or new insights, informed by the forefront of equine science
- manage project work effectively

iv. Transferable Skills
The students will be able to:
- learn through self reliance
- produce work in groups
- work effectively independently
- communicate effectively
- develop further appropriate skills in use of IT
- exercise initiative and personal responsibility
- make decisions in complex and unpredictable situations
- show the independent learning ability required for continuing professional development

Assessment methods used to test these outcomes will include: Written examinations and coursework such as:
Report writing, essay writing, critical literature review, oral and poster presentations, assessed group and individual seminars, and the submission of a dissertation as a thesis or research paper.

13. Programme structure and requirements

The programme is designed to cover all areas of equine science which affect the routine management of horses and which form the basis of most research projects currently carried out at institutes in the UK and abroad and is composed of 2 main elements:

1. The teaching component of the course is based on eight modules, which are assessed individually by coursework and examinations.
2. A research based dissertation, to be submitted as a thesis or research paper as agreed by the dissertation module leader, the subject of which falls into categories outlined by the modules. The supervisor for each project would normally be the module leader of the relevant subject area.

A Credit Accumulation Transfer System (CATS) is in operation at the University. Points are awarded based on the successful completion of each module of the course and are interchangeable with those at other institutions. The number of CATS points awarded per module is 15 and for the dissertation (which counts as a quadruple module) 60. In order to achieve the award of MSc, a CATS score of 180 is required (eight modules plus the dissertation component). There is an exit point of the award of Post Graduate Diploma for those obtaining 120 CATS points and not proceeding to dissertation.

The taught component of the programme extends from October to May and upon successful completion of this element students proceed to undertake research work for their MSc dissertation. The ½ module in Research Methodology reviews the cognitive skills required for work at M level, and runs in the first term. The mode of assessment for each module is outlined below. The teaching period for each module is usually completed by Easter prior to the examination period, with the exception of Research Methodology and Statistics which runs during the first 3 weeks of the summer term, with a project proposal and presentation assessment at the end of this period. This finishes the preparation for data collection for dissertation, although students are encouraged to plan their subject as early as possible during the previous terms. Some students may start data collection earlier than this, especially if their work is based at the University.
Outline assessment schedule

<table>
<thead>
<tr>
<th>Module</th>
<th>Coursework</th>
<th>Typical Assignment</th>
<th>Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Methodology</td>
<td>Term 1</td>
<td>Portfolio of work</td>
<td>No exam</td>
</tr>
<tr>
<td>Research Methodology and</td>
<td>Term 3</td>
<td>Project proposal and presentation</td>
<td>No exam</td>
</tr>
<tr>
<td>Statistics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equine Health</td>
<td>Term 1, Term 2</td>
<td>Critique of scientific paper Literature review</td>
<td>No exam</td>
</tr>
<tr>
<td>Equine Nutrition</td>
<td>Term 2</td>
<td>Applied Nutrition exercise</td>
<td>No exam</td>
</tr>
<tr>
<td>Management of Reproduction</td>
<td>Term 2</td>
<td>Literature review</td>
<td>3 hour exam</td>
</tr>
<tr>
<td>Exercise Physiology</td>
<td>Term 1</td>
<td>Literature review</td>
<td>3 hour exam</td>
</tr>
<tr>
<td>Equine Genetics and Breeding</td>
<td>Term 1</td>
<td>Literature review/ Lab report</td>
<td>3 hour exam</td>
</tr>
<tr>
<td>Equine Behaviour and Welfare</td>
<td>Term 1, Term 2</td>
<td>Literature review Seminar</td>
<td>No exam</td>
</tr>
<tr>
<td>Equine Pasture, Forage and</td>
<td>Term 1</td>
<td>Seminar Paper synopsis</td>
<td>No exam</td>
</tr>
<tr>
<td>Turf Management</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Students have the summer planned as a data collection period, and then write up their dissertation for presentation in the form of a thesis or research paper by the first Monday of the summer term, the following year (18 months from start of the programme), to enable graduation with MSc, that summer. An extension to the dissertation submission date of up to a further 12 months maybe granted by agreement with the supervisor and the dissertation module manager, but additional fees will be charged.

The research leading to dissertation should usually be suitable for publication as a conference paper, or for publication in a refereed learned journal. Therefore the dissertation can be presented either in the form of a thesis or written as a research paper. Students will be given guidance on the most appropriate form their dissertation should take by the dissertation module leader, and students will be guided on preparing research for publication within the Research Methodology and Statistics module. Suitability for the mode of presentation of the thesis will be judged on the nature of the study. Research based on gathering information from the public (questionnaire based) and topics that require several small preliminary data gathering exercises would be suitable for the dissertation format. Examples of previous dissertations that have been good pieces of work and well suited to this format are:
• An investigation into the incidence of stereotypical behaviour in event horses
• An investigation into the relationship between horse body condition and management factors

Examples of experimental work that has been published that would be appropriate for research paper format are:-


Students who register for the equine science research paper are also required to give a research seminar to present their findings. The seminar presentation will be assessed, and given a weighting of 30% of the equine science research module. This will not only promote the research to a wider audience within the University, but also help prepare students if their work is accepted for a conference.

Research opportunities have used RAU facilities in DNA typing, parasitology, forage and pasture management, behavioural analysis, and feeding trials. Students have also secured dissertation positions in a wide range of other learned institutions in research areas such as nutrition, genetics of disease, equine welfare and exercise physiology.
Credit accumulation and awards

**Taught Programme**

**First Term only**
- Research Methodology (7.5 credits)
- Equine Pasture, Forage and Turf Management (7.5 credits)

**Taught Programme**
(October – March)
- Equine Nutrition (15 credits)
- Equine Genetics and Breeding (15 credits)
- Exercise Physiology (15 credits)
- Management of Reproduction (15 credits)
- Equine Health (15 credits)
- Equine Behaviour and Welfare (15 credits)

**Summer Term only**
EXAMS
- Research Methodology and Statistics (15 credits)

---

**Student workload**
All full-time academic programmes at the RAU are constructed using a selection of modules, each of which requires engagement with a variety of learning activities. Successful completion of module assessments will result in the award of credits, and students are required to achieve a total of 120 credits for each year of a full-time programme.
The credit system is used to ensure a balanced workload across each programme, with each credit point representing a notional learning time of 10 hours of student work. Thus a 15-credit module will require a notional input of 150 hours of work, and a complete academic year of 120 credits will require 1200 hours of work, or approximately 40 hours per week.

Within this total time, students can expect to participate in formal timetabled activities; such as lectures, seminars, tutorials, practicals and visits; for approximately one third of the total time – usually around 2 hours per week for a 15-credit module studied over 20 weeks of the year. Thus the majority of module activities; such as reading around the subject, preparing for tutorials and seminars, preparing for, and completing, module assessments and revision for, and sitting, examinations; will take place outside of these scheduled activities, but are an essential part of a student’s learning journey.

Students attempting to short-cut their learning activities may find themselves experiencing difficulties as each module progresses, and as the level of assumed understanding increases. Thus it is vitally important that new students establish an effective routine for their studies as soon as possible. Maintaining a balanced workload from the start of the programme will help to avoid intense periods of activity, and ensure knowledge and understanding gradually develop throughout the year in readiness for any end-of-module examinations.

14. **Student support services**

The Programme Management Group includes the Programme Manager, and staff responsible for individual modules, as well as the Dean of the School of Equine Management and Science, and student representation (see section 18). Each student is allocated a personal tutor upon registration, to whom any academic and/or personal (if relevant) issues may be addressed.

Support facilities also include:

1. Induction programme for orientation
2. Student handbook, programme specification and module handbooks
3. Library and study skill packages
4. Student e-mail and inter/intranet facilities
5. Programme manager and personal tutor
6. Personal access to lecturing staff
7. Access to additional learning support services
8. Student Liaison Officer
9. Student Information and Welfare Officer
10. Careers Advisor

See Student Handbook for details.
15. Criteria for admissions

The programme is designed to build upon underpinning biological/animal science knowledge by applying this to the equine model. Candidates are therefore expected to have obtained:

- A good honours degree in a cognate scientific subject (preferably a bioscience at least 2:1)
- Other FHEQ level 7 academic qualifications with extensive relevant professional or other experience, although exceptional entry may be offered to persons who do not fulfil these requirements. The course team may be available to aid such students prior to entry, to assess their learning requirements. The use of formative assessments during this time has been standard practice for those who have not recently been in HE.

16. Teaching, learning and assessment

This programme is inclusive of disabled people (e.g. hearing impaired, vision impaired, speech impaired, dyslexic and mobility impaired) with particular regard to teaching, learning and assessment, in accordance with Part 10: Inclusive Practice of the University’s Teaching Quality Handbook and the Equality Act 2010. Students are encouraged to disclose any impairment to the Disability Officer so that the appropriate support can be provided. Students have the right to request that the nature of their impairment be treated as confidential.

The forms of disseminating knowledge employed on the MSc Applied Equine Science include lectures (including those from guest speakers), seminars (group, individual-led, student-led), tutorials, visits to other institutions and equine establishments, conference attendance, literature-based research, computer assisted learning and practical instruction. The emphasis of further development of independent learning skills is a key cognitive attribute of M level study and so directed and private study constitutes a major element of scholarship, and culminates in the research leading to dissertation.

The Research Methodology module (4085) equips students with the skills required to study at level 7 whether they have been out of an educational environment for some time, or whether they are recent graduates. This module is delivered in the first few weeks of the first term, and is recommended to be included in the first year for part-time students. It ensures students are familiar with referencing, critiquing scientific literature, using electronic resources, and have a general understanding of statistics. This is good background for the more in-depth Research Methodology and Statistics module (4027) which is delivered in the summer term in preparation for the research proposal, and hence students are expected to be competent at data handling and would be expected to run appropriate statistical tests that are relevant to their intended dataset.
It is helpful to make clear distinction between some of these methods of teaching and to consider their role and purpose:

**Lectures**
Lecturers are not intended to be seen as the founts of all knowledge. The purpose of lectures is to interest students in a particular subject matter in order that they can research it further.

At postgraduate level in equine science related modules lectures lend themselves to generalised debate, due to small group size. Where this is impractical there may be question times offered at various intervals.

Lectures are intended to:
- Stimulate interest in the subject matter
- Give information
- Offer different perspectives on a subject
- Explaining higher level concepts and theories
- Show students how to deepen their knowledge
- Provide an opportunity to listen to specialist guest lecturers

**Seminars and Tutorials**
Seminars and tutorials are primarily interactive and provide an opportunity for students to inter-relate with each other in an academic context. They are an occasion for the exchange of ideas and information under the guidance of a lecturer/tutor. Individual or group preparation of a topic is usually required, and performance may contribute to assessment.

Seminars and tutorials are intended to
- Offer the chance for students to express their views
- Allow academic interaction
- Give students valuable practice in making presentations
- Facilitating discussions
- Encouraging structured research
- Sharing and diversification of information and experience
- Consolidate experience of group work

**Practicals**
Student practicals, visits and demonstrations will take a variety of forms on equine businesses, research establishments and laboratories. They form an important part of overall course provision and help to reinforce and apply the subject principles.

**Directed and private study**
Students are expected to undertake private study as the important learning method within the course. This will normally involve reading texts and learned journals to explore the breadth and depth of the syllabus, and familiarisation with web-based abstracts services. The preparation of tutorial/seminar work, of coursework, of case study submissions and of major projects will involve in-depth knowledge of current theories in the field of equine science. The use of
the full range of resources provided by the University library is very important for the effective use of private study time. The academic and library staff provide advice and assistance on both finding and using relevant material. Guidance in private study and self-directed learning is a key element of the Research Methodology I module.

17. Work-based learning

N/A

18. Quality Assurance Procedures

(Taken from RAU Teaching Quality Handbook Part 4)

Programme Management

The Dean of the School responsible for a particular programme will appoint a Manager for each programme of study, who should normally be an experienced member of academic staff and may teach modules or part modules or may have specific expertise in the disciplines relevant to the programme.

A Programme Committee, comprising the Programme Manager, Year Managers where appropriate, the School Dean, relevant teaching staff and elected student representatives from each cohort year, have responsibility for monitoring delivery of the programme of study during the academic year.

The responsibilities of a Programme Manager are to:

(i) Convene the meetings of the Programme Committee.
(ii) Coordinate teaching input and agree timetable arrangements in each year of the programme.
(iii) Be responsible for producing the Programme Specification and the programme documents as approved by Academic Quality and Standards Committee (AQSC).
(iv) Present an Annual Programme Manager’s Report to AQSC through the respective Dean – see Part 3 of the Teaching Quality Handbook for more details.
(v) Have delegated authority to respond to immediate problems or difficulties within the management of a programme.
(vi) Liaise with all members of teaching staff, including visiting lecturers.
(vii) Ensure Module Leaders keep Module Reference Sheets up-to-date.

The Programme Committee will consist of the following persons:

(i) Programme Manager (Chair).
(ii) Year Managers (where appropriate).
(iii) School Dean (ex officio).
(iv) Academic staff representatives – those who have a significant responsibility for, or input into, the modules, which together comprise the programme.

(v) Up to 2 student representatives for each year of the programme, elected by the relevant year group.

(vi) Learning Resources representative (ex officio).

(vii) Employer representatives where appropriate (ex officio).

Programme Committees are expected to meet a minimum of twice per academic year.

Terms of Reference for Programme Committees will be to:

(i) Monitor the delivery of the programme, including recruitment, induction and retention of students, teaching and curriculum, assessment of progress and general programme administration.

(ii) In addition to (i), authorise the Programme Manager or School Dean to permit minor variations from the programme as may be reasonable, for example extensions of student work submission times and/or topics for study visits. Programme Committees may not alter assessment methods, pass levels or curriculum content.

(iii) Assume responsibility for general staff/student liaison for the programme, for arranging meetings between the Committee and students on the programme and for obtaining feedback from present and immediate past students on the programme in a format which enable cross-University comparisons to be readily made.

(iv) Submit minutes of its meetings to AQSC via the Academic Registrar as an annex to the Programme Manager’s Annual Report. The AQSC may also require an additional report from the Programme Committee convenor on specific matters.

19. Marking guides and assessment regulations

Work at postgraduate level must show high-level academic skills, especially demonstrating the ability to analyse, synthesise and evaluate information. The final award is calculated on the basis of the dissertation element being double-weighted prior to calculating the overall final average based on the relative credit value of each module. The University marking criteria and assessment regulations are available from the University website.

The final award classifications are:
Pass 50-59%
Merit 60-69%
Distinction 70% and above
The type of work that is necessary at Master's level will show:

- evidence of a wide knowledge of relevant theory;
- clear evidence of selection of appropriate material, logical structure and clear argument;
- evidence of an ability to evaluate information and synthesise generalisms from it;
- evidence of ability to state and defend on the basis of evidence a personal position in relation to an issue;
- evidence of a high level of analysis resulting in judgement based on evidence;
- evidence on emphasis on criteria and the weighting of these in forming a judgement;
- evidence of the application of knowledge to new situations;
- evidence of full and precise knowledge of the possibilities and limitations of the methodology(ies) being used;
- correct and clear English with very few imprecise statements.

A distinction may be obtained if the work shows the addition of:

- having seen all the possibilities inherent in both the question and the material;
- evidence to maintain a personal position in original terms;
- evidence of creative and intelligent innovation;
- evidence of ability to range widely and eclectically for information and synthesise in a way that shows a grasp of the material;
- lively and articulate writing free from cliché, jargon etc, giving evidence of knowledge, enthusiasm and editing ability.

The marking guidelines [see marking criteria guidelines for coursework and examinations (Level 7) in Student Handbook, and on the RAU website] outline the quality of work expected for the award of a grade (indicating the percentage band range marks). Tutors take these guidelines into account when awarding the grade. These descriptors are not the minimum criteria, which must be met in all respects in order to gain a particular grade, but rather as being indicative of the general standard of work provided at each level. The overall threshold pass mark for coursework and exams is 50%.

20. Ownership of programme specification

School of Equine Management and Science

21. Curriculum Map

See overleaf.
## Curriculum Map

<table>
<thead>
<tr>
<th>MODULE</th>
<th>CODE</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>A5</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>B4</th>
<th>B5</th>
<th>B6</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>D4</th>
<th>D5</th>
<th>D6</th>
<th>D7</th>
<th>D8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Methodology 1</td>
<td>4085</td>
<td>✗</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✗</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equine Genetics and Breeding</td>
<td>4045</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of Reproduction</td>
<td>4050</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equine Pasture and Turf Management</td>
<td>4048</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equine Nutrition</td>
<td>4037</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise Physiology</td>
<td>4049</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Methodology and Statistics</td>
<td>4027</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Equine Behaviour and Welfare</td>
<td>4044</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equine Health</td>
<td>4046</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissertation</td>
<td>4005</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Equine Science Research</td>
<td>4204</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**KNOWLEDGE & UNDERSTANDING** the students will be able to demonstrate a knowledge and understanding of:-

- A1 a systematic understanding of the knowledge appropriate to the module disciplines
- A2 a theoretical basis of research methodologies appropriate to equine science
- A3 recent developments in the field of equine and animal science
- A4 concepts enabling them to evaluate and critique advanced scholarship and methodologies in equine science, and where appropriate, to propose new hypotheses

**COGNITIVE SKILLS** the students will be able to:-

- B1 interpret data and abstract meaning
- B2 critically analyse literature
- B3 identify and solve problems, dealing with complex issues systematically and creatively
- B4 demonstrate independence of thought, acting autonomously in planning and implementing tasks
- B5 develop skills of critical self reflection, and make sound judgements and conclusions
- B6 demonstrate the skills necessary to plan, conduct and report original research

**PRACTICAL SKILLS** the student will be able to:-

- C1 evaluate the work of others
- C2 write for different audiences
- C3 locate and critically appraise data from a variety of sources
- C4 produce a bibliographically based piece of research
- C5 demonstrate originality in the application of knowledge
- C6 have a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline
- C7 have a critical awareness of current problems and/or insights, informed by the forefront of the particular discipline
- C8 manage project work effectively

**TRANSFERABLE SKILLS** the student will be able to:-

- D1 learn through self reliance
- D2 produce work in groups
- D3 work effectively independently
- D4 communicate effectively
- D5 develop skills in IT to a high level
- D6 exercise initiative and personal responsibility
- D7 make decisions in complex and unpredictable situations
- D8 show the independent learning ability required for continuing professional development
22. Career prospects

Students who have obtained MSc/PGDip Applied Equine Science have been employed in the following occupations:

- Lecturing in FE colleges and HEIs (usually subject to CPD to obtain PGCertHE)
- Registration for further research degrees
- Postgraduate research assistant in animal science
- Technical advice/consultancy for example in the field of equine nutrition
- Continuing practical equine career(s) with application of scientific principles
- The course is considered by the McTimoney College of Chiropractic to provide a cognate animal science base for entry. Several students have pursued this route of further post-graduate training to become qualified chiropractors.
- Management trainee for a national human food manufacturer
- Extend career in equine journalism with increased science base.
- Director of a haysteamer company having completed research on the effects of the haysteamer on microorganisms and nutrient content of hay for the MSc thesis.

23. Further information

The programme specification document is designed to be a concise summary of the main features of the MSc in Applied Equine Science programme. More detailed information about the modules is available in the individual module handbooks and the module websites available from the University’s VLE (Gateway). The University regulations, which include the assessment regulations, are available from the RAU website. The student handbook also includes details of the University’s Equal Opportunities and Disabilities statements and the details of the learning resources available to students.

24. Module Reference Sheets

<table>
<thead>
<tr>
<th>Module</th>
<th>code</th>
<th>credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Methodology</td>
<td>4085</td>
<td>(7.5 credits)</td>
</tr>
<tr>
<td>Equine Nutrition</td>
<td>4037</td>
<td>(15 credits)</td>
</tr>
<tr>
<td>Equine Genetics and Breeding</td>
<td>4045</td>
<td>(15 credits)</td>
</tr>
<tr>
<td>Exercise Physiology</td>
<td>4049</td>
<td>(15 credits)</td>
</tr>
<tr>
<td>Management of Reproduction</td>
<td>4050</td>
<td>(15 credits)</td>
</tr>
<tr>
<td>Equine Pasture, Forage and Turf</td>
<td>4048</td>
<td>(7.5 credits)</td>
</tr>
<tr>
<td>Management</td>
<td>4046</td>
<td>(15 credits)</td>
</tr>
</tbody>
</table>
Equine Behaviour and Welfare 4044 (15 credits)
Research Methodology and Statistics 4027 (15 credits)
Equine Science Research 4204 (60 credits)
Or
Dissertation 4005 (60 credits)

Module reference sheets, for all modules studied on the programme, are available on the University website and can also be accessed via the University VLE (Gateway) (http://gateway.rau.ac.uk). There will also be a module handbook provided for each module which outlines the topics studied, the assessment details and reading lists.