Programme Specification

Title and name of awards

Masters of Science in Livestock Health and Production (MSc)
Postgraduate Diploma in Livestock Health and Production
Postgraduate Certificate in Livestock Health and Production

Masters of Science in Veterinary Epidemiology and Public Health (MSc)
Postgraduate Diploma in Veterinary Epidemiology and Public Health
Postgraduate Certificate in Veterinary Epidemiology and Public Health

The University offers some individual courses of these programmes as:

- 35 hour non-credit bearing short courses
- 50 hour non-credit bearing short courses
- 240 hour credit bearing short courses

Level of the programmes

The FHEQ forms part of the academic infrastructure of the Quality Assurance Agency for Higher Education (QAA) in England and Wales.

The awards are placed at the following Levels of the Framework for Higher Education Qualifications (FHEQ):

The awards are placed at the following Levels of the Framework for Higher Education (FHEQ):
MSc - Masters degree - Level 7 (formerly level 'M')
Postgraduate Diploma - Level 7
Postgraduate Certificate - Level 7

Relevant QAA subject benchmarks group(s)

See the QAA website for information.

Not applicable

Awarding body

University of London

Registering body

www.londonexternal.ac.uk

University of London, through the External System

Lead College

Royal Veterinary College

Accreditation by professional or statutory body

Not applicable

Language of study and assessment

See also section 4 of the Detailed Regulations.

English

Mode of study

Find further details about student support in the student handbook.

Distance learning

Programme structures and requirements

The **MSc degree** consists of **seven** courses as follows:

- **three** compulsory core courses *plus*
- **four** further optional courses from a selection.

The **Postgraduate Diplomas** consists of **four** courses as follows:

Postgraduate Diploma in Livestock Health and Production

- **one** compulsory core course *plus*
- **one** further core course chosen from two *plus*
- **two** optional courses from a selection.

Postgraduate Diploma in Veterinary Epidemiology and Public Health

- **two** compulsory core courses *plus*
- **two** optional courses from a selection.

Students with an effective date of registration of 1 January 2011 or after must successfully pass the assessment for the core courses prior to commencing the optional courses for all programmes. Students with an effective date of registration of 1 January 2010 or before are **advised** to study one or more of the core courses before taking any optional courses. Students wishing to take the optional Research Project course are encouraged to study the optional course on *Research Design, Management and Grant Application Writing* prior to this.

The **Postgraduate Certificates** consist of **two** core courses as follows:

Postgraduate Certificate in Livestock Health and Production

- **one** compulsory core course plus
- **one** further core course chosen from two.

Postgraduate Certificate in Veterinary Epidemiology and Public Health

- **two** compulsory core courses.

Details of credits and exemptions are to be found in section 2 of the Detailed Regulations.

Applications for credit from students and graduates of the University of London will be considered on a discretionary basis.

No exemptions are available for these programmes.

The maximum and minimum periods of registration, from a student's effective date of registration, are:

	Minimum	**Maximum**
Postgraduate Certificate	One year	Five years
Postgraduate Diploma	Two years	Five years
MSc	Two years	Five years

Full details are in section 3 of the Detailed Regulations.

Some courses of these programmes are offered as non-credit bearing short courses and credit bearing short courses. A 240 hour credit bearing short course student who successfully completes the assessment for the 240 hour credit bearing short course may be considered for progression to one of the MSc degrees, Postgraduate Diplomas or Postgraduate Certificates. There is no progression from the 35 hour, or 50 hour, non-credit bearing short courses. A short course student may take any number of non-credit bearing and credit bearing short courses, but only two relevant 240 hour short courses can be counted as credit towards a Postgraduate Diploma or MSc degree, or one relevant 240 hour short course may be counted towards a Postgraduate Certificate.

In order to be able to **progress** from the Postgraduate Certificate to the related Postgraduate Diploma or MSc degree, students are advised to pass both core courses and receive a recommendation from the Examiners that they may proceed to the remaining courses of the related diploma or degree.

In order to be able to **progress** from the Postgraduate Diploma to the MSc degree, students are advised to pass the four Postgraduate Diploma courses and receive a recommendation from the Examiners that they may proceed to the remaining courses of the related degree.

At the discretion of the Board of Examiners, a student registered for the MSc degree who does not pass all the courses for the degree may be awarded *either*

- the Postgraduate Diploma **provided** they have passed the four courses comprising the Diploma *or*
- the Postgraduate Certificate provided they have passed the **two** core courses comprising the Certificate.

Awards are given on the following basis:

- **MSc degree**, students must have attempted, and passed in seven courses.
- **Postgraduate Diploma**, students must have attempted and passed in four courses.
- **Postgraduate Certificate**, students must have attempted and passed in two courses.

The award of the MSc degree, Postgraduate Diploma and Postgraduate Certificate is normally given on the basis of achieving an average mark within the appropriate range. Examiners have discretion to take into account a student's overall performance.

The MSc degree, Postgraduate Diploma and Postgraduate Certificate may be awarded with the following grading - Distinction, Merit, Pass or Fail as follows:

Mark range	**Class Equivalent**
75+	Distinction
65-74	Merit
50-64	Pass
0-49	Fail

Entrance requirements

The prospectus gives details of the application process alternative qualifications that may be accepted and English Proficiency tests.

In order to be eligible to register for the **MSc degree** an applicant must have:

Either

a) a second class honours degree, or the equivalent, in a scientific subject, veterinary science, animal science, agriculture, biological sciences or medicine, from a university or other institution acceptable to the University of London.

Or

b) a second class honours degree, or the equivalent, in a scientific discipline which has, in the opinion of the University, included suitable preliminary training, from a university or other institution acceptable to the University of London.

In order to be eligible to register for the **Postgraduate Diploma**, **Postgraduate Certificate**, **240-hour short courses and 50-hour short courses** a student must have a degree or a technical or professional qualification and work experience considered appropriate and relevant by the University.

All applicants must provide evidence of their English language ability. Applicants whose first language is not English must provide documentary evidence acceptable to the University that the applicant has, no more than three years prior to the application, **either**

- been educated in English (minimum 18 months), **or**
- worked in English (minimum 18 months), **or**
- passed a test of English proficiency acceptable to the University of London within the past three years – for example IELTS with an overall score of 6.5, with a minimum of 6.0 in each sub-test, or TOEFL score of 580 (or 237 in the computerised test) plus 4.5 in the Test of Written English (TWE)/Essay rating.

Applicants who do not meet these requirements may be considered by the University on an individual basis.

Some modules will require students to have access to computer hardware and software as described in the prospectus.

Educational aims and learning outcomes of the programmes

MSc degree, Postgraduate Diploma and Postgraduate Certificate in Livestock Health and Production:

These programmes are aimed primarily at veterinarians, animal health specialists and livestock farmers. Optional courses make these programmes suitable for people from a range of professional backgrounds. The programmes address contemporary issues of livestock production and have a worldwide relevance.

Successful completion of the Postgraduate Certificate or Postgraduate Diploma may allow progression to the related MSc degree. Successful completion of the MSc degree may allow students to progress to postgraduate research in the field of study or a related area.

The core courses provide an essential introduction to a variety of approaches, methods and subjects. These courses are designed to equip students with the preliminary practical and intellectual skills necessary for progression to the next level. Within the Postgraduate Diploma and the MSc degree there is a natural progression from the core courses to the optional courses. Within the selection of optional courses there is an element of choice in subject matter and disciplinary areas of study. Although the optional courses may not in themselves be more difficult, students will develop a greater understanding and a sophistication of thinking as they work through the courses.

The programmes aim to provide students with:

- Knowledge on agents of animal diseases and how animals respond to them.
- Advanced knowledge in animal nutrition, breeding and management to optimise animal health and production.
- Farming systems approach to animal production and an understanding of how to appraise and monitor livestock production systems through development and execution.

Depending on the options taken, the MSc degree and Postgraduate Diploma also aim to provide students with:

- Comprehensive appreciation of welfare and ethical issues connected with farm animal practice.
- A detailed knowledge of animal diseases of major economic importance with diagnostic principles and control and treatments.
- Comprehensive insight in to the management of fertility to optimise animal productivity.
- The use of economic concepts in animal health and production.
- The perceptions of what constitutes safe food production and the necessary tools to make an objective judgment of contemporary issues such as antibiotic resistance.
- Facts on economic and livestock policy for development under different socio-economic conditions.
- Information on how to formulate a hypothesis and undertake a research project, analyze and present data and how to develop a grant application.
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The **learning outcomes** of the programmes are as follows:

Knowledge and Understanding

A student will be able to demonstrate an understanding of:

- Internal and external components of health and how animals respond to agents of disease, at an individual and population level.
- How feeding, breeding, management and interaction with the environment, influence animal production and disease.
- Appropriate husbandry for different animals in diverse environmental and socio-economic conditions.
- The role in the protection of human health through the safe production of foods of animal origin, control of zoonotic disease and environment.
- The diseases of major economic importance in each category of farm animal production.
- Management and manipulation of fertility to optimise animal productivity.
- Future livestock development and the provision and use of tools to analyse the issues confronting producers, their advisers, planners and policy makers.
- Concepts of epidemiological investigations and the use of economic methods in animal health and production.

Practical skills

A student will be able to:

- Adapt locally available raw materials, conditions, rules and management structure to optimise animal health and production.
- Demonstrate scientific skills, including critical review of the scientific literature.
- Use decision making skills to analyse animal health problems at farm and national level.

Intellectual and Cognitive skills

A student will be able to develop skills in:

- Planning
- Logic and reasoning
- Comprehension
- Visual and auditory processing
- Long-term memory

Transferable skills

A student will be able to develop and demonstrate**:**

- Independent learning, taking responsibility for own studies.
- Time management skills.
- Organizational skills.
- Becoming a reflective self-manager, by taking a systematic, analytical, strategic and reflective approach to study tasks.
- Information gathering and analytical skills to make own judgements about ideas and knowledge.

- Language skills.
- Information technology skills.
- Understanding of own strengths and weaknesses, remaining optimistic by positive thinking in an isolated study situation.

MSc degree, Postgraduate Diploma and Postgraduate Certificate in Veterinary Epidemiology and Public Health

These programmes are aimed at animal health specialists, epidemiologists and public health specialists with an understanding of the conceptual basis of veterinary epidemiology and public health.

Successful completion of the Postgraduate Certificate or Postgraduate Diploma may allow progression to the related MSc degree. Successful completion of the MSc degree may allow students to progress to postgraduate research in the field of study or a related area.

The core courses provide an essential introduction to a variety of approaches, methods and subjects. These courses are designed to equip students with the preliminary practical and intellectual skills necessary for progression to the next level. Within the Postgraduate Diploma and the MSc degree there is a natural progression from the core courses to the optional courses. Within the selection of optional courses there is an element of choice in subject matter and disciplinary areas of study. Although the optional courses may not in themselves be more difficult, students will develop a greater understanding and a sophistication of thinking as they work through the courses.

The programmes aim to provide students with:

- An understanding of the role of veterinary epidemiology and economics in the design and delivery of effective livestock services.
- Knowledge of risk analysis approaches in food safety and how human health can be protected through control of zoonotic diseases.
- Skills in basic and advanced statistical methods in order to undertake epidemiological investigations and disease modelling.

Depending on the options taken, the MSc degree and Postgraduate Diploma also aim to provide students with:

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- An understanding of the farming systems approach to animal production and how to appraise and monitor livestock production systems through development and execution.
- Information on how to formulate a hypothesis and undertake a research project, analyse and present data and how to develop a grant application.
- Facts on economic and livestock policy for development of farming systems under different socio-economic conditions.
- Knowledge so that they can develop their own strategies for combating chronic farm animal diseases, control zoonotic diseases through surveillance and apply herd health programmes to maximise economic returns from animal production.

The **learning outcomes** of the programmes are as follows:

Knowledge and Understanding

A student will be able to demonstrate an understanding of:

- Concepts of epidemiological investigations and to use economic methods in animal health and production.
- Statistical methods used in veterinary epidemiology to analyse data
- Spatial data analysis methods to interpret geographic data
- The role in the protection of human health through the safe production of foods of animal origin, control of zoonotic disease and environment.
- Future livestock development and the provision and use of tools to analyse the issues confronting producers, their advisers, planners and policy makers.
- Appropriate husbandry for different animals in diverse environmental and socio-economic conditions.

- Disease surveillance programmes and the tools that can be used to assist decision making in relation to disease control and prevention.

Practical skills

A student will be able to:
- Analyse epidemiological data and interpret them clearly
- Display spatial maps using geographical information systems software
- Perform risk analysis and build and analyse risk models using @RISK software
- Develop scientific skills, including critical review of the scientific literature.
- Demonstrate decision making skills to analyse animal health problems at farm and national level.

Together with the specific knowledge based and practical skills, all students are expected to acquire a range of cognitive and transferable skills.

Intellectual and Cognitive skills

A student will be able to develop skills in:
- Planning
- Logic and reasoning
- Comprehension
- Visual and auditory processing
- Long-term memory

Transferable skills

A student will be able to develop and demonstrate:
- Independent learning skills, taking responsibility for own studies.
- Time management skills.
- Organizational skills.
- Becoming a reflective self-manager, by taking a systematic, analytical, strategic and reflective approach to study tasks.
- Information gathering and analytical skills to make own judgements about ideas and knowledge.
- Written skills.
- Information technology skills.
- Understanding of own strengths and weaknesses, and ability to work effectively in an isolated study situation.

Teaching, learning and assessment strategies

These programmes are designed so that the student is provided with all the primary material required to complete the course. This includes directed study notes in a Study Guide, a collection of reading material such as journal articles and extracts from text books (the Reader) and text-books where appropriate. Wider reading to supplement the study material is recommended.

These programmes combine educational methods that encourage self-directed learning, reflection on personal experience, and critical thinking with web technology and access to online resources. The programme uses a virtual learning environment that enables students to engage in collaborative learning. Students can also contact academic tutors through the distance learning office at RVC.

Up to three Tutor Marked Assignments (TMAs) may be assessed for each course. These assignments act both as formative and summative assessments. Each assignment is marked and returned to the student to help the student understand how well they are doing and learn how to improve. The highest mark gained counts towards the formal coursework assessment element for the course.

It is External System policy that there should be a preponderance of unseen written examinations in the assessment of programmes. This is to ensure security and reduce the possibility of

plagiarism. In these programmes unseen written examination constitutes 80% of the programme assessment. The unseen written examinations are structured not only to assess knowledge and understanding but also to examine the way that students manage data, solve problems, evaluate ideas and the organizational skills they use to structure answers, while allowing the standard of intellectual and transferable skills to be assessed.

There is one optional course (the Research Project) available to the MSc degree which is assessed by submission of a research paper and by an oral examination. Specific practical skills and transferable skills are assessed.

Assessment criteria for the programme will indicate the level at which the skills have been achieved.

Assessment methods

Find full details of the assessment and the scheme of award sections 7 of the Detailed Regulations.

With the exception of the Research Project, the 50-hour and 35-hour short courses, each course will be assessed by a three-hour unseen written examination, which may contain essay and/or shorter questions.
Students will also be required to submit up to three Tutor Marked Assignments (TMAs) per course and, the highest mark of which, will count as part of the formal assessment.

The mark awarded for each course will be based on both the written examination and the TMA weighted in the scale 80:20 respectively.

All candidates must have completed and been assessed in one TMA prior to the examination. Written examinations will be held in October at examination centres throughout the world. TMAs can be submitted any time during the year leading up to the examination.

The optional Research Project is assessed by the submission of a paper suitable for publication in an identified scientific journal (80%) and an oral examination conducted either face-to-face or via the telephone (20%).

The written examinations take place on one occasion each year, normally commencing in October. These will be held at established centres worldwide.

Student support and guidance

There is further information on support and guidance is in the student handbook.

The following summarises the support and guidance available to students.

- a Study Guide for each course studied (containing directed learning notes);
- a Reader (containing photocopied journal articles and book chapters);
- textbooks for certain courses;
- CD-ROMs material for certain courses;
- Regulations, containing full details of syllabuses, programme structure, assessment regulations, degree classification criteria, etc;
- Past examination papers and Examiners' commentaries, which provide generic feedback from assessment where these are available;
- Student handbook:
  - Programme section includes information about the resources available and how to access them and procedures for assessment and examinations. Handbooks also give study skills advice.
  - General Section gives information which is common to all programmes in the External System. It reflects the student life cycle and gives information about matters of importance from the start of a students' relationship with the External System through to their graduation. This section also puts the Regulations in context for the student.
- Students are also offered tutorial support for academic matters through the Distance Learning Office at the Royal Veterinary College;

- Virtual learning environment - discussion board and academic tutorials
- Access to an Online Library which provides a range of full-text, multidisciplinary databases. Journal articles, book reviews and reports can be found on the databases to which the Library subscribes on your behalf;
- University of London library - registered students may use the resources located within the Senate House library (for a small additional fee);

Quality evaluation and enhancement

Refer to the External System website for its policies and procedures in quality assurance.

The External System is a partnership between the central University and individual Lead Colleges/ Consortia. The policies, partnerships and systems are defined within our key documents: The Quality Framework, the Quality Assurance Schedules, Guidelines for Examinations and Detailed Regulations for each programme.

Parity of award standards

University Regulations state that "candidates granted degrees and other awards shall have attained the same academic standard irrespective of mode or place of study or examination".

- Every programme of study is developed and approved by a Lead College, or Consortia, to the same standards and requirements as would be applied in the Lead College(s);
- Learning materials are written and examinations are set and marked by academic staff employed or chosen by the Lead Colleges, who are required to apply the University's academic standards.

Review and evaluation mechanisms

Procedures are in place to assure the quality of the programme development, delivery, management, systematic monitoring and ongoing review and enhancement of all External programmes. Enhancements are made as necessary to ensure that systems remain effective and rigorous.

- Annual programme reports are prepared in order to enhance individual programmes and to plan ahead;
- Periodic programme reviews are conducted on a 4-6 year cycle to review how a programme has developed over time and ensure that it remains current and up-to-date;
- Annual External Examiner reports are prepared by Independent External Examiners to confirm that a programme has been assessed properly and meets the appropriate academic standards;
- Comprehensive student information statistics are reviewed annually and feed into all systematic reporting within the External System.

Student feedback mechanisms

- Annual Student Experience Surveys collect programme level feedback according to the student lifecycle and the stages reached by students in their learning. In addition some Lead Colleges schedule their own modular or unit level surveys;
- Virtual Learning Environments (VLEs) provide the opportunity for informal feedback and discussion;
- External System committees and sub-committees include student membership where appropriate. Some External programmes recruit their own student representatives at the programme level.

The Committee Zone on the External System website provides further information on the External System governance structure, including Terms of Reference, Agendas and Papers and can be accessed via: http://www.londonexternal.ac.uk/quality/comte_zone/index.shtml

This Programme Specification is presented in support of our commitment to the nationally agreed reference points for assuring the quality and standards of higher education, known as the

Academic Infrastructure. Further information can be found at:
http://www.qaa.ac.uk/academicinfrastructure/default.asp