

MVetMed Programme Specification and Assessment & Award Regulations

Applies to cohort commencing 2011

1. Awarding institution	The Royal Veterinary College
2. Teaching institution	The Royal Veterinary College (University of London)
3. Programme accredited by	N/A
4. Final award	Master of Veterinary Medicine (MVetMed)
5. Programme Title	Senior Clinical Training
6. Date of First Intake	2008
7. Frequency of Intake	Annually
8. Duration and Mode(s) of Study	3 full-time calendar years
9. Timing of Examination Board meetings	Annually in July
10. Date of Last Quinquennial Review	N/A
11. Date of Next Quinquennial Review	N/A [First cohort review 2011/12]
12. Entry Requirements	A veterinary degree registrable with the RCVS and Membership of the RCVCS or temporary Membership of the RCVS entitling the applicant to work in the RVC's hospitals. Must normally be a Clinical Training Scholar at the RVC. Completion of an appropriate internship programme or at least 12 months working in a relevant clinical or veterinary pathology environment Applicants from overseas will be required to provide evidence of proficiency in spoken and written English and will be required to achieve an overall score of 7.0 in IELTS with a minimum of 6.5 in each sub-test; or a TOEFL score of at least 93 (internet-based test), 580 (paper-based test) or 237 (computer-based test), plus 4.5 in the Test of Written English (TWE)/Essay rating.
13. UCAS code	N/A

14. JACS Code	D200
15. Relevant QAA subject benchmark group(s)	N/A

16. Reference points	
N/A	
17. Educational aims of programme	
The programme aims to: • produce high quality graduates with additional personal and professional skills poised to take up leading positions as veterinary clinicians or pathologists in academia worldwide, in private practice, or in industry. • produce graduates with experience and expertise in clinical veterinary medicine or veterinary pathology • produce graduates with critical analysis skills and experience in conducting research projects • produce graduates with good communication and teaching skills, who are able to take advantage of current developments in information technology	
18. Programme outcomes - the programme offers opportunities for students to achieve and demonstrate the following learning outcomes.	
1. Knowledge and understanding of: • their clinical discipline • the pathophysiological principles behind their clinical area of study • related clinical disciplines • clinical research methodology • ethical and welfare issues relating to clinical practice,	Assessment by • Continuous formative assessment of case management (on a daily basis) by senior clinicians/ pathologists • Review by senior clinician/pathologist of owner and/or referring vet communication documents • Continuous assessment of participation in clinical/pathology rounds by senior clinicians/pathologists • Assessment of contributions to graduate seminars by senior clinicians/pathologists on a weekly basis • Assessment of participation in journal and text reviews by senior clinicians/pathologists

teaching and research Teaching/ learning methods Students will acquire knowledge and understanding through participation in: • Management of clinical cases under supervision • Clinical rounds • Speciality journal clubs • Core taught modules (A modules) • Non-core taught modules (B modules)	• Oral presentations to the relevant Department on an annual basis • Written examinations for the taught component of each module (MCQ, EMQ, essays, practical spot-test exams) • Assessment of the research project report by an internal and external examiner, with an oral defence • Annual appraisal by clinical / pathology and research supervisors
2. Cognitive (thinking) skills: • Systematic understanding and critical awareness of new developments in the relevant area of clinical expertise • Planning • Logic • Comprehension • Visual and auditory	Assessment by • Continuous formative assessment of evidence-based case management (on a daily basis) by senior clinicians/pathologists • Review by senior clinician/pathologist of owner and referring vet communication documents • Formative assessment of participation in clinical rounds by senior clinicians/pathologists • Formative assessment of contributions to Graduate seminars by senior clinicians/pathologists on a weekly basis

processing

- A critical approach to study design and implementation
- Confidence in applying statistical analysis to clinical or laboratory studies

Teaching/ learning methods

Students cognitive skills will be developed through participation in:

- clinical case or pathological case management/ under supervision
- critical assessment of the literature in Speciality journal clubs
- Speciality resident rounds
- Clinical and research presentations
- Taught modules

- Formative assessment of participation in journal and text reviews by senior clinicians/pathologists on a weekly basis
- Summative feedback from module written exams
- Formative feedback at annual appraisal

C. Practical skills and Abilities	Teaching/learning methods
Graduates will have developed and improved the following: • Proficiency in dealing with complex clinical or diagnostic cases in a referral setting • Competence in performing diagnostic and therapeutic interventions at a referral level, or specialised laboratory techniques • Organisational skills • Interpersonal skills • An ability to communicate clearly to both scientific and non-scientific personnel • Presentation skills, including small group teaching and formal oral presentations • Teaching and learning skills • Information technology skills	• Management of clinical / diagnostic cases under the supervision of senior clinicians/pathologists • Supervised participation in diagnostic and therapeutic techniques • Participation in daily clinical/pathological rounds • Contribution to weekly Graduate seminars • Participation in group review of journal articles and scientific texts • Problem-solving exercises • Attendance at Continuing Professional Development courses within the college • Formal lectures within the taught component of the MVetMed programme at a level above undergraduate or Continuing Professional Development courses • Attendance at Scientific conferences • Preparation and delivery of oral presentations • An individual research project Assessment • Clinical case log • Continuous formative assessment of evidence-based case management (on a daily basis) by senior clinicians/pathologists • Review by senior clinician/pathologist of owner and referring vet communication documents • Continuous assessment of participation in clinical rounds

	by senior clinicians/pathologists • Assessment of contributions to Graduate seminars by senior clinicians/pathologists on a weekly basis • Assessment of participation in journal and text reviews by senior clinicians/pathologists on a weekly basis • Oral presentations to the relevant Department on an annual basis • Written examinations for the taught component at the end of each module • Annual appraisal by clinical and research supervisors • Assessment of the research project report by research supervisor and external examiner, with an oral defence
D. Key skills • Clinical problem solving skills • Practical clinical skills • Organisational skills • Data analysis skills • Presentation skills • Teaching skills • Information technology skills Teaching/ learning methods • Clinical case management • Client and referring vet communication	Assessment: Written research project Oral exam End of year annual appraisal End-of-module written examinations

- Preparation and execution of research project
- Oral presentations within the department and at national/international meetings

19. Programme structures and requirements, levels, modules, credits and awards

Students will

- be assigned to the clinic or diagnostic pathology duty rota and assume primary case responsibility under supervision. Where appropriate, a case log will be kept of all cases managed, and a case summary will be written as part of the client and referring vet communication document.
- participate in Department and speciality seminars and presentations
- participate in weekly journal and /or book review with senior clinicians/pathologists
- participate in weekly training sessions pertinent to chosen discipline

Research Project

Students will conduct a structured research project in the area of their choice over the three year programme, and produce a written research report in the format of a literature review and article in a format suitable for publication in an approved peer-reviewed journal.

Modules

Students will complete all 5 core modules and any 5 elective modules from the lists below.

Core modules

1. Describing and Interpreting Clinical Data
2. Applied Research Skills
3. Information Technology skills
4. Practical Veterinary Education
5. Ethics and welfare

Elective modules

Problem solving in Veterinary Neurology

Cardiovascular pathophysiology

Dermatology

Immunology

Nephrology & Urology

Oncology

	Endocrine
	Evidence Based Veterinary Medicine
	Gastrointestinal pathophysiology
	Advanced general surgery
	ECC Module 1: Cardiovascular Focus
	ECC Module 2: Respiratory Focus
	ECC Module 3: Haemostasis Focus
	Musculoskeletal Physiology and Locomotion
	Respiratory physiology and pathophysiology
	Molecular and cellular biology –clinical diagnostics
	Clinical Pharmacology
	Scientific writing
	Applied statistics and SPSS
	Pathology of the Alimentary Tract
	Pathology of the Respiratory Tract
	Urogenital Pathology
	Neurologic and ophthalmic pathology
	Pathology of the haemopoietic and lymphoreticular system
	Infectious diseases of dogs and cats
	Pathology of the Cardiovascular and Endocrine system
	Neonatology and paediatrics
	Echocardiography I
	Small animal gastrointestinal system

20. Work Placement Requirements (BVetMed and FdSc only)	N/A
ASSESSMENT	
21. Form of Examination	Examinations - Written examinations associated with each module (format individualised by module: e.g. essays, MCQs, EMQs, spot tests) Research project - Formative feedback on a structured 300 word research abstract in year 1 as part of the appraisal form - Formative feedback on literature review (<5000 words) by end of year 2 by supervisor - Dissertation that includes the literature review and description of the research project written in the format of a paper suitable for publication in a peer-reviewed journal appropriate for their Specialty Board, OR an original research first-author publication accepted in a peer-reviewed journal with an accompanying literature review - Oral examination of research project at end of year 3
22. Any requirements to be completed to permit entry to the examination	- Recommendation to continue to next year at the annual appraisal at the end of year 1 and year 2 AND 3 oral presentations (may be within the RVC) AND - A minimum of 50% in combined marks for 5 group A (core) modules with a minimum of 40% for each individual group A module AND

- A minimum of 50% in combined marks for 5 group B (elective) modules with a minimum of 40% for each individual group B module

AND

- A research report submitted by the due deadline before the final 3rd year oral defence

23. Marking Criteria

See general marking scheme

24. Allocation of Marks

25% 'Core' Modules

25% 'Elective' Modules

50% Research Project

Module marking (Core and Elective) (total 50%)

Each module will be marked according to the common marking scheme and scaled to 5% for each module.

If more than five elective modules have been completed, the five modules with the highest marks shall be selected..

Research Project marking (total 50%)

Written research project (45% total)

Oral defence (5%)

25. Any additional requirements

26. Requirements to Pass Overall

To achieve a total average mark of 50% for all assessments combined, with a minimum of 50% in each of the individual components (core module assessments, elective module assessments, and research project) and a minimum of 40% in individual modules.

27. Consequences of Failure	A student who fails to receive a recommendation to continue to the following academic year at either the 1st or 2nd year annual appraisal will be considered to be 'on probation' for the next 3 months until progress is reviewed at a follow-up appraisal. The student will normally be referred to APRICOT at this stage. If satisfactory progress has not been achieved by the 3-month follow-up appraisal, the studentship will be terminated. A student who has not achieved more than 40% in each of the five core module examinations would require a pass at a resit exam the following year. A student who has achieved less than 40% in an elective module may have to complete an alternative module in order to accrue marks from 5 elective modules to submit towards the 'elective' module component. A student who has achieved less than 40% in the research project will be given the opportunity to resubmit the following year.
28. Classification	Distinction: 75% or more; Merit: 65-74%; Pass: 50-64%; Fail: less than 50%
29. Disclosure of Marks	Results will be published by candidate number
30. Dates of Examinations	Module examinations will be held at the end of each module. The final oral examination will be held in July of the 3rd year.
31. Date of production/revision	

ii Subject Benchmark

The MVetMed aims to formalise and provide structure to the teaching and learning of Senior Clinical Training Scholars: students who are enrolled at the Royal Veterinary College so as to become experts within their chosen clinical speciality. The MVetMed encompasses a wide range of clinical and paraclinical disciplines above those that are expected of the related undergraduate BVetMed degree. In particular, the degree has a strong vocational element and encompasses (1) validating a range of practical and professional generic skills, (2) ensuring a comprehensive depth of understanding within a student's chosen speciality and (3) completion of an in depth programme of clinical research. The MVetMed will therefore be awarded after a (typically 3 year) programme to students who demonstrate a thorough understanding in depth of their clinical field in addition to that of their research project. Unlike undergraduate level courses, students enrolled in the MVetMed are expected to respond to current developments within their field, and to be capable of critical reflection of these developments and of their own developing competence in a focussed clinical area. Assessment of MVetMed students' abilities (for example in professional interactions, critiquing of published

research, seminar presentations etc) will be assessed on a continuous formative basis and at annual appraisals. Individual module assessments will be set at a standard equivalent to that expected by the European Board of Veterinary Specialisation. Finally, each student's research project should be at a level suitable for publication in an approved refereed journal.

iii Attainment and assessment of generic skills

MVetMed degrees will be awarded to students who have demonstrated:

1. A comprehensive understanding of the physiology and pathophysiology pertinent to their chosen clinical speciality.
2. Ability to master new techniques and practical skills pertinent to their chosen clinical speciality.
3. An ability to solve advanced problems within their chosen clinical speciality.
4. An ability to plan and execute under supervision a research project and to analyse critically the results and draw appropriate valid conclusions in the context of other published work.
5. An ability to evaluate critically published work in veterinary or related scientific journals.
6. A working knowledge of a variety of experimental techniques and study designs.
7. Effective use of Information technology skills relevant to both their clinical and research work.
8. The ability to communicate complex clinical and scientific ideas to colleagues and lay persons, concisely, accurately and informatively.
9. The ability to manage their own learning through consultation and interaction with colleagues, by didactic teaching, use of appropriate texts and research articles, attendance at meetings and other primary sources.

Assessment will be made by examining (i) objective scores achieved in modular courses; (ii) the quality of a literature review and description of an original piece of scientific research; (iii) appraisal by supervisors of the students' clinical or pathological skills and knowledge whilst performing daily duties. The relative contribution of each of these components is outlined elsewhere in this document.

iv. Start date: September 2008; thereafter July each year

v. Module components

See attached sheets

vi. List of teachers

See attached sheets

vii. Extent of commonality with the BVetMed

MVetMed students will be expected to have a thorough understanding of the taught components of the BVetMed within their chosen area of clinical speciality. However there will be no formal overlap in the taught components of the 2 degrees.