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| Awarding institution: | The University of Edinburgh |
| Teaching institution: | The University of Edinburgh |
| Programme accredited by: | The Royal College of Veterinary Surgeons, American Veterinary Medical Association |
| Final award: | Bachelor of Veterinary Medicine and Surgery (BVM&S) |
| Programme title: | Veterinary Medicine |
| UCAS code: | D102 |
| Relevant QAA subject benchmarking group(s): | Veterinary Science |
| Postholder with overall responsibility for QA: | Professor David Argyle |
| Date of production/revision: | June 2015 |

External summary

The veterinary profession and its work are held in high esteem by the general public and is a source of considerable interest, with unprecedented exposure of veterinary matters in the popular media. Veterinarians are regarded as guardians of animal health and welfare, and the veterinary schools have a responsibility to continue to produce graduates in whom the public will have confidence.

The sustained public appeal of veterinary work has led to a level of demand for places on veterinary courses which far exceeds supply. Most applicants are attracted in the first instance by the prospect of veterinary clinical practice with its unique combination of science, art, practical skills, human-

animal and interpersonal interaction. However, an increasing number follow other career paths as they become aware of the diverse opportunities provided by a veterinary degree. [3 QAA Subject benchmark statement]

In 2011/12, the R(D)SVS relocated all of its teaching and learning activities to the Easter Bush Campus. The campus contains a purpose built teaching building as well as the existing veterinary hospitals and the Roslin Institute. The schools mission is to benefit society and the environment by educating veterinary surgeons to become members of worldwide public and professional healthcare teams; and to advance veterinary and comparative medicine through research into disease with the goal of improving the health and welfare of both animals and humans.

Using outstanding clinical and research facilities the school aims to:

- ensure a stimulating educational environment to equip students for the profession and life-long learning
- undertake veterinary clinical and biomedical research to improve animal health and welfare
- protect society through safe food production and control of emerging and zoonotic diseases

Educational aims of programme

The four year BVM&S degree at the Royal (Dick) School of Veterinary Studies provides students with breadth and depth of knowledge in veterinary science. This allows appreciation of fundamental scientific principles and their integration with, and application to, the whole animal. This holistic education combines with the staged acquisition of specific clinical and generic skills to produce graduates trained to the core competencies identified by the accrediting bodies.

The aims of the programme are broadly:

- To provide an understanding of the normal biological function and welfare needs of animals
- To enable clinical disciplines to be learnt within the context of a firm foundation in basic science
- To produce graduates for the practising arm of the profession and allied research, commercial and public health positions
- To encourage responsible and professional behaviour encompassing legal and ethical considerations

- To foster a spirit of enquiry and equip graduates with an appreciation of the importance of lifelong learning

Programme outcomes: Knowledge and understanding

BVM&S graduates will have acquired relevant and contextualised knowledge in the following areas [1]

- The sciences on which the activities of veterinary surgeons are based
- The structure and functions of healthy animals, and all aspects of their husbandry
- The aetiology, pathogenesis, clinical signs, diagnosis and treatment of the common diseases and disorders that occur in the common domestic species in the UK.
- Legislation relating to the welfare (including transport) of animals and notifiable diseases
- The fundamentals of financial and people management as they apply to veterinary businesses
- Medicines legislation and guidelines on responsible use of medicines
- The principles of disease prevention and the promotion of health and welfare
- Veterinary public health issues including zoonoses

Programme outcomes: Graduate attributes - Skills and abilities in research and enquiry

BVM&S graduates will:

- have a strong appreciation of the contribution of basic and applied research in furthering the practice of veterinary medicine [2] [1]
- be able to evaluate evidence [1]
- recognise the importance of reflecting on their learning experiences and be aware of their own learning style
- be able to critically assess existing understanding and the limitations of their own knowledge and recognise the need to regularly challenge all knowledge
- be able to identify, define and analyse problems and identify or create processes to solve them
- be able to exercise critical judgment in creating new understanding
- be ready to ask key questions and exercise rational enquiry
- assess and implement basic health and welfare records (and production records where appropriate)

- be able to identify, define and analyse problems affecting animal health and identify or create processes to address them
- be able to collect, evaluate and use the best available evidence to diagnose, prevent, cure or manage animal health problems
- be able to apply an understanding of normal and abnormal animal structure, function and behaviour for diagnosis, management and prevention of animal disease
- maintain effective skills for identifying and responding to emerging animal diseases and issues
- be able to critically assess existing understanding and the limitations of their own knowledge and recognise the need to regularly challenge all knowledge
- engage in research-based practice, using critical judgment and creativity
- be willing to use their professional capabilities to contribute as far as possible to the advancement of veterinary knowledge in order to benefit veterinary practice and further improve the quality of animal care and public health

Programme outcomes: Graduate attributes - Skills and abilities in personal and intellectual autonomy

BVM&S graduates will be able to work independently and sustainably, in a way

that is informed by openness, curiosity and a desire to meet new challenges. Graduates will:

- be aware of personal limitations, and demonstrate awareness of when and from where to seek professional advice, assistance and support.[1]
- be aware of the ethical responsibilities of the veterinary surgeon in relation to individual patient care and client relations, and also more generally in the community in relation to their possible impact on the environment and society as a whole [1]
- be able to evaluate their own abilities and demonstrate an understanding of the need and professional obligation for a commitment to continuing education and training, and professional development, throughout one's professional life [1]
- be open to new ideas, methods and ways of thinking
- be able to make independent, informed decisions on the basis of rigorous and independent thought, taking into account ethical and professional issues

- be able to use collaboration and debate effectively to test, modify and strengthen their own views
- be intellectually curious and able to sustain intellectual interest
- be able to respond effectively to unfamiliar problems in unfamiliar contexts
- have a personal vision and goals and be able to work towards these in a sustainable way
- be creative and imaginative thinkers

Programme outcomes: Graduate attributes - Skills and abilities in communication

BVM&S graduates will recognise and value good communication skills both within the practice environment and elsewhere. Graduates will:

- communicate effectively with clients, the lay public, professional colleagues and responsible authorities; listen effectively and respond sympathetically to clients and others, using language in a form appropriate to the audience and the context [1]
- obtain an accurate and relevant history of the individual animal or animal group, and its/their environment
- prepare clear case reports and maintain patient records [1]
- make effective use of oral, written and visual means to critique, negotiate, create and communicate understanding within and outside the practice environment
- seek and value open feedback to inform genuine self-awareness
- use effective communication to articulate their skills as identified through self-reflection
- develop a capacity for self-audit and willingness to participate in the peer-review process [1]
- provide advice on principles of husbandry, nutrition, prophylaxis and maintenance of health and welfare records
- advise on treatments, the principles of husbandry and feeding and preventive and prophylactic programmes appropriate to the species and commensurate with accepted animal health, welfare and public health standards

Programme outcomes: Graduate attributes - Skills and abilities in personal effectiveness

BVM&S Graduates will:

- work effectively as individuals, partners and a member of a multi-disciplinary team in the delivery of services to clients, appreciating and using talents constructively [1]
- be able to cope with uncertainty and adapt to change [1]
- be able to apply an elementary knowledge of the organisation and management of a veterinary practice[1]
- conduct themselves in a professional manner with regard to the veterinary surgeon's professional and legal responsibilities and understand and apply the ethical codes as set out in the RCVS Guide to Professional Conduct [1]
- be aware of the economic and emotional climate in which the veterinary surgeon operates, and respond appropriately to the influence of such pressures [1]
- be able to manage risk while initiating and managing change
- be responsive to their changing surroundings, being both flexible and proactive
- be able to flexibly transfer their knowledge, learning, skills and abilities from the veterinary context to others
- work with, manage, and lead others in ways that value their diversity and equality and that encourage their contribution to the organisation and the wider community

Programme outcomes: Technical/practical skills

BVM&S graduates will have gained experience in the following subject specific and generic technical and practical skills [1]

- Handle and restrain an animal safely and humanely, and instruct others in performing these techniques
- Perform a complete clinical examination
- Attend all species in an emergency and perform basic first aid
- Assess correctly the nutritional status of an animal
- Collect, preserve and transport samples, perform standard laboratory tests, and interpret the results of those generated in-house, as well as those generated by other laboratories. Use radiographic, ultrasonic, and other technical equipment which can be used as a diagnostic aid, safely and in accordance with current regulations
- Follow correct procedures after diagnosing notifiable, reportable and zoonotic diseases
- Know and apply the RCVS twelve Principles of Certification correctly
- Access the appropriate sources of data on licensed medicines; prescribe and dispense medicines correctly and responsibly in accordance with

relevant legislation and ensure that medicines and waste are safely stored and/or disposed of

- Correctly apply principles of sterilisation of surgical equipment
- Correctly apply principles of aseptic surgery
- Safely perform sedation, general and regional anaesthesia, implement chemical methods of restraint, and assess and control pain
- Administer appropriate treatment
- Recognise when euthanasia is necessary and perform it humanely, using an appropriate method, whilst showing sensitivity to the feelings of owners and others, and with due regard to the safety of those present; advise on disposal of the carcass
- Perform a basic gross post mortem examination, record details, sample tissues, store and transport them
- Perform ante mortem inspection of animals destined for the food chain and correctly identify conditions affecting the quality and safety of products of animal origin
- Carry out preventive and prophylactic programmes appropriate to the species and commensurate with accepted animal health, welfare and public health standards
- Minimise the risks of contamination, cross infection and accumulation of pathogens in the veterinary premises and in the field

1. *RCVS Day and Year 1 Competences*. [cited; Available from: <http://www.rcvs.org.uk/document-library/day-one-competences-updated-march-2014/>]

2. *AAVMC Clinical Competences Outcomes*. [cited; Available from: <https://www.avma.org/ProfessionalDevelopment/Education/Accreditation/Colleges/Pages/coe-pp-requirements-of-accredited-college.aspx>]

3. QAA subject benchmark statement: Veterinary Science

Programme Structure and Features

The course is Full-time only with no options for part-time or distance learning strategies

** For FULL entry requirements see <http://www.ed.ac.uk/schools-departments/vet/studying/bachelor-vet-medicine/overview>

| GEP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|--|---|--|
| <u>The Animal Body GEP</u> 130 credits Level 8 | <u>The Animal Body 1</u> 50 credits Level 8 | <u>The Animal Body 3</u> 60 credits Level 8 | <u>Veterinary Pathology</u> 30 credits Level 9 | <u>Integrated Clinical Course: Farm Animal</u> 40 credits Level 10 | <u>Final Year Core Rotations</u> 80 credits Level 11 |
| | <u>The Animal Body 2</u> 40 credits Level 8 | <u>The Animal Body 4</u> 20 credits Level 8 | <u>Integrated Clinical Course: Dog & Cat</u> 40 credits Level 9 | <u>Integrated Clinical Course: Equine</u> 30 credits Level 10 | <u>Student Research Component</u> 20 credits Level 11 |
| <u>Animal Life & Food Safety GEP</u> 60 credits Level 8 | <u>Animal Life & Food Safety 1</u> 40 credits Level 8 | <u>Animal Life & Food Safety 2</u> 40 credits Level 8 | <u>Clinical Foundation Course</u> 40 credits Level 9 | <u>Integrated Clinical Course: Exotics</u> 10 credits Level 10 | <u>Final Year Selectives</u> 80 credits Level 11 |
| <u>Professional & Clinical Skills GEP</u> 10 credits Level 8 | <u>Professional & Clinical Skills 1</u> 10 credits Level 8 | <u>Professional & Clinical Skills 2</u> 10 credits Level 8 | <u>Professional & Clinical Skills 3</u> 10 credits Level 9 | <u>Professional & Clinical Skills 4</u> 60 credits Level 10 | |
| | | <u>Student Research Component (Foundation Skills)</u> 10 credits Level 8 | | <u>Veterinary Public Health</u> 20 credits Level 10 | |

All students repeating/resitting a course will be required to take: Professional Development 0 credits Level 8

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|--------------------------|---------------------------------|-----------------------------|---|--|---------------------------|
| Total Credits: 200 | Total Credits: 140 | Total Credits: 140 | Total Credits: 120 | Total Credits: 160 | Total Credits: 180 |
| Accumulated Credits: 200 | Accumulated Credits: 140 | Accumulated Credits: 280 | Accumulated Credits: 400 (exiting GEP students awarded RPL credits) | Accumulated Credits: 560 | Accumulated Credits: 740 |
| Exit Qualification: | Exit Qualification: Certificate | Exit Qualification: Diploma | Exit Qualification: BSc Vet Sci | Exit Qualification: **BSc (Hons) Vet Studies | Exit Qualification: BVM&S |

Following successful completion of this year the students progress to Year 3 of the 5 year programme



**On completion of SRC

Teaching and learning methods and strategies

Teaching and Learning strategies employed at the University of Edinburgh consist of a variety of different methods appropriate to the programme aims. The graduate attributes listed above are met through a teaching and learning framework (detailed below) which is appropriate to the level and content of the course.

| | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| Lectures | ★ | ★ | ★ | ★ |
| Laboratories | ★ | ★ | ★ | ★ |
| Practicals | ★ | ★ | ★ | ★ |
| Tutorial | ★ | ★ | ★ | ★ |
| Seminars | ★ | ★ | ★ | ★ |
| Problem and case based learning activities | ★ | ★ | ★ | ★ |
| Peer group learning | ★ | ★ | ★ | ★ |
| Fieldwork | ★ | ★ | ★ | ★ |
| Clinics | | ★ | ★ | ★ |

Assessment methods and strategies

Courses can be assessed by a diverse range of methods and often take the form of formative work which provides the students with on-going feedback as well as summative assessment which is submitted for credit.

| | 1 | 2 | 3 | 4 |
|--------------------------------|---|---|---|---|
| Laboratory Reports | ★ | ★ | ★ | ★ |
| Oral Presentations | ★ | | | ★ |
| Practical Skills | ★ | ★ | ★ | ★ |
| Poster Presentations | ★ | | | |
| Essays | ★ | | | |
| Written Examinations | ★ | ★ | ★ | ★ |
| Multiple Choice Question Exams | ★ | ★ | ★ | ★ |
| OSCE | | ★ | ★ | ★ |
| Research report | | | ★ | ★ |

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Career opportunities

The degree programme prepares you for general veterinary practice or more specialist work with small animals, equine or farm animals, exotic animals or laboratory animals.

Outside veterinary practice, there are many opportunities for graduates to join organisations working to prevent wildlife disease, working in the conservation of endangered species, or teaching livestock husbandry in the developing world.

You can also pursue a research career, from biomedical research to government-led research into disease control. The School incorporates the Roslin Institute of the University of Edinburgh which, along with the Moredun Research Institute and the Scottish Agricultural College, are members of the Easter Bush Research Consortium (EBRC) representing one of the highest concentrations of animal scientists in the world.

Other items

Student Support:

Every BVM&S undergraduate student is a member of a House led by a Senior House Tutor with 5-6 Personal Tutors. Every student has a Personal Tutor. Personal Tutors provide academic and pastoral guidance for students within the University. Students can contact them to discuss any issues they may be having and if they are unable to help, they will assist in finding the right support.

You can approach your Personal Tutor for guidance and support at any time throughout your studies and if for some reason your Personal Tutor is unavailable, you can contact any other Personal Tutor within your House as well as the Senior House Tutor or Student Experience Officer.

Study Skills:

Having the correct study skills techniques is important to ensure that you make the most of your time at University. The School offers a range of study skill advice sessions that are open to all students.

We recognise that students come with a whole range of experiences and backgrounds and more importantly all are

individual in their needs. Therefore, we have a team of staff available to help students.

We offer dedicated study skills advice, through drop-in and individual bookable sessions. Typically during these sessions, current methods will be reviewed and alternative strategies are suggested. Often students find just small changes can make a big difference to their enjoyment and success at University.

We also offer workshops and other events where students can try out various techniques and talk to fellow students about what methods they use.

University Services and Outreach:

The University provides a number of support services for students across its campuses. The R(D)SVS ensures we have outreach services at our Easter Bush Campus and this includes Counselling, Careers, Disability and the EUSA Advice Place.

EMS:

Extra Mural Studies (EMS) allows students to gain practical experience in as many aspects of veterinary work as possible.

"Seeing Practice" for 26 weeks has been a requirement for all veterinary students in the UK since 1932 and is currently referred to as EMS.

EMS consists of two distinct phases:

Pre-clinical or animal husbandry phase, which comprises a total of 12 weeks.

Clinical EMS, which comprises 26 weeks towards the latter part of the degree course. Clinical EMS should include time in abattoirs, laboratories, and with the government veterinary services, as well as in clinical practices. These periods can include overseas placements. Students can also spend time working on research projects or attending research summer schools as part of EMS. Veterinary practices provide a vital contribution to this part of the veterinary student's training.

