

**PROGRAMME SPECIFICATION: BSc/MSci Biological Sciences**  
**Applies to Cohort Commencing 2018**

1. Awarding institution	The Royal Veterinary College
2. Teaching institution	The Royal Veterinary College (University of London)
3. Programme accredited by	Royal Society of Biology
4. Final award	Bachelor of Science / Master in Science
5. Programme Title	Biological Sciences
6. Date of First Intake	2014 for BSc Biological Sciences 2015 for MSci Biological Sciences
7. Frequency of Intake	Annually in September
8. Duration and Mode(s) of Study	Three or four years full-time
9. Timing of Examination Board meetings	Annually in July
10. Date of Last Periodic Review	N/A
11. Date of Next Periodic Review	2019/20
12. Entry Requirements	<a href="#">See RVC Website</a>  <u>Progression to Year 4</u> To be considered for progression to Year 4, applicants must have achieved an aggregate Year 2 mark of at least 50%.
13. UCAS Code	C100, C102
14. JACS Code	C000
15. Relevant QAA subject benchmark group(s)	Biosciences
<b>16. Reference points</b>	
<p>Report of the Committee of Enquiry into Veterinary Research (the Selborne Report)</p> <p>Quality Assurance Agency, The framework for higher education qualifications in England, Wales and Northern Ireland</p> <p>Higher education credit framework for England: guidance on academic credit arrangements in higher education in England, Quality Assurance Agency, 2008</p> <p>Regulations of the University of London Future Fit, CBI 2009</p> <p>Degree Accreditation Criteria, Society of Biology</p> <p>SEEC Level Descriptors for Higher Education, SEEC, 2010</p>	
<b>17. Educational aims of programme</b>	
<p><b><u>BSc Biological Sciences</u></b></p> <ul style="list-style-type: none"> <li>To offer a high quality course, in which students are challenged by, and stimulated to challenge, accepted wisdom in all fields of biological sciences.</li> <li>To prepare graduates for careers in academic and industrial research, biotechnology and the pharmaceutical industry in general, and in other biological, veterinary and medicine-related industries.</li> <li>To offer a high quality preparation for students aspiring to graduate entry to Veterinary Medicine, Medicine or Dentistry.</li> </ul>	

### **MSci Biological Sciences**

- To offer a high quality course incorporating extensive research experience, in which students are challenged by, and stimulated to challenge, accepted wisdom in all fields of biological science.
- To prepare graduates for a PhD or career in academic and industrial research, biotechnology and the pharmaceutical industry in general, and in other veterinary and medicine-related industries.
- To offer a high quality preparation for students aspiring to graduate entry to Veterinary Medicine, Medicine or Dentistry.

The specific aims of the MSci Year are to enable students to:

- Gain research experience within the biological sciences that is relevant to their degree.
- Gain a deep and systematic understanding of current questions, problems and methods employed within the selected specialised research topic.
- Implement principles of project and experimental design and carefully execute, record and clearly disseminate research.
- Use self-reflection to improve levels of knowledge, professionalism, personal skills and research skills.
- Develop a sound appreciation of the research environment in which the student is working and their role within it.

### **18. Programme outcomes - the programme offers opportunities for students to achieve and demonstrate the following learning outcomes.**

At the time of graduation students should, to a standard appropriate for a new bachelor of science graduate, be able to:

- A. Demonstrate knowledge and understanding of:
1. Specialised terminology which underpins an individual discipline or subject area.
  2. Cognate sciences.
  3. The political, social and economic context of the applications of science.
- B. Display the following cognitive (thinking) skills: The ability to:
1. Access information and skills as required by a task.
  2. Make methodical observations on the normal and abnormal functioning of biological systems.
  3. Discriminate between important and relatively unimportant information and observations.
  4. Reflect on information and observations, and solve problems.
  5. Discuss uncertainty in relation to scientific "facts", and balance different schools of thought.
- C. Display the following practical skills including the ability to:
1. Design and execute experiments, and to analyse and interpret the resultant data.
  2. Present conclusions in a variety of formats.
- D. The following are considered to be Key Skills:
1. Communication.
  2. Teamwork.
  3. Personal management and career development.
  4. Effective learning.
  5. Problem-solving.
  6. Information technology.
  7. Numeracy.
  8. Acting with integrity, being honest, fair and compassionate in all your work.
  9. Maintaining high ethical principles in relation to business dealings, the use of information and experimentation in man and animals.

**At the time of graduation students should, to a standard appropriate for a new master in science graduate, be able to:**

- A. Demonstrate knowledge and understanding of:

1. Specialised terminology which underpins an individual discipline or subject area.
  2. Cognate sciences.
  3. The political, social and economic context of the applications of science.
- B. Display the following cognitive (thinking) skills: The ability to:
1. Access information and skills as required by a task.
  2. Make methodical observations on the normal and abnormal functioning of biological systems.
  3. Discriminate between important and relatively unimportant information and observations.
  4. Reflect on information and observations, and solve problems.
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1. Design and execute experiments, and to analyse and interpret the resultant data.
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- D. The following are considered to be Key Skills:
1. Communication.
  2. Teamwork.
  3. Personal management and career development.
  4. Effective learning.
  5. Problem-solving.
  6. Information technology.
  7. Numeracy.
  8. Acting with integrity, being honest, fair and compassionate in all your work.
  9. Maintaining high ethical principles in relation to business dealings, the use of information and experimentation in man and animals.
- E. Demonstrate the following advanced skills:
1. Clearly communicate their project aims, background, results, relevance and own proposals for future research, demonstrating critical analysis and a deep and systematic knowledge and understanding of the literature.
  2. Clearly and properly record their research.
  3. Demonstrate excellent professional conduct.
  4. Identify specific areas for personal and skill development.

### **Teaching/Learning methods**

Students develop their knowledge and understanding through attendance at lectures, seminars, workshops, tutorials and through a variety of directed and self-directed learning activities, including practical exercises. They will learn cognitive skills through problem solving, case studies, reflection and role modelling. Practical skills will be learned through demonstration, observation, prosecution, feedback, role modelling and experimentation. Finally, Key Skills will be taught through group work and exercises, structured learning, practical work, reflection, presentations (oral and written) and problem-solving exercises.

During Year 4, the MSci Research year, an extended project is carried out under the supervision of a Supervisor. Training will be given to the student as appropriate by the supervisor and other work colleagues, with regular meetings with the supervisor.

### **Assessment**

#### **A. Knowledge and understanding:**

Students will be assessed through a combination of formative, in-course and summative examinations, using a range of question formats.

#### **B. Cognitive (thinking) skills:**

Cognitive skills will be assessed through appropriately structured written examinations, together with project reports and discussion of poster presentations.

**C. Practical skills:**

Practical skills will be assessed using structured tasks and laboratory-based projects.

**D. Key Skills:**

Through key skills assessment criteria, alongside systems and discipline-based assessment criteria, these skills will be assessed in a variety of ways throughout the course.

**E. Research Skills:**

Research skills are assessed in all years through written and oral presentation of a literature-based project and experimental projects in Years 2, 3 and 4, with supervisor assessments for experimental projects. Formative assessment of the project during Year 4 (MSci Research Year) will be via participation in lab meetings, journal clubs, supervisory meetings and tutorials; self-assessment of skills. Summative assessment will be assessment of a Project Report and associated poster, an oral examination and a Supervisor's assessment. Assessment of the Research Skills module is via a Research Proposal, with presentation at two journal clubs being required.

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

This is a modular programme: See Award and Assessment Regulations Part 2 "Award Map" for the Course for details.

**20. Work Placement Requirements**

Optional Certificate in Work-based Learning and Research placement year