Royal Veterinary College
University of London

PROGRAMME SPECIFICATIONS

Bachelor of Science / Master in Science in Biological Sciences (BSc Bio Sci) / (MSci Bio Sci)

Bachelor of Science / Master in Science in Biological Sciences with Placement Year (BSc Bio Sci PY) / (MSci Bio Sci PY)

Royal Veterinary College
University of London

PROGRAMME SPECIFICATION

1. Applies to cohort commencing in:	2022
2. Degree Granting Body	University of London
3. Awarding institution	The Royal Veterinary College (University of London)
4. Teaching institution	The Royal Veterinary College (University of London) and Institute of Zoology (IoZ, Zoological Society of London)
5. Programme accredited by	Royal Society of Biology
6. Name and title	Bachelor of Science / Master in Science in Biological Sciences (BSc Bio Sci) / (MSci Bio Sci)
7. Intermediate and Subsidiary Award(s)	Cert HE in Biological Sciences (WHS) Dip HE in Biological Sciences (WHS)
8. Course Management Team	Course Director: Dr Charlotte Lawson; Pathway Leader: Dr Stuart Patterson Year 1 Leader: Dr Donald Palmer; Year 2 Leader: Dr Abir Mukherjee; Year 3 Leader: Dr Isabel Orriss Year 4 Leader: Dr Stuart Patterson
9. FHEQ Level of Final Award	BSc Level 6 MSci Level 7 See: http://www.qaa.ac.uk/en/Publications/Documen ts/qualifications-frameworks.pdf
10. Date of First Intake	September 2021
11. Frequency of Intake	Annually in September
12. Duration and Mode(s) of Study	Full time: BSc – three years MSci – four years A mix of teaching approaches including onsite and digital, synchronous and asynchronous, class and self-paced, expert-led, group and individual.

13. Registration Period *(must be in line with the General Regulations for Study and Award)*

	Full Time		Part Time	
	Minimum	Maximum	Minimum	Maximum
BSc	2 Academic years	5 Academic years	4 Academic years	6 Academic years
MSci	3 Academic years	6 Academic years	4 Academic years	7 Academic years

14. Timing of Examination Board meetings	Annually in July and September
15. Date of Last Periodic Review	n/a
16. Date of Next Periodic Review	2023
17. Language of study and assessment	English

18. Entry Requirements	BSc: https://www.rvc.ac.uk/study/undergraduate/bsc-wildlife-health-sciences#tab-entry-requirements MSci:

	https://www.rvc.ac.uk/study/undergraduate/bsc-wildlife-health-sciences#tab-entry-requirements Progression to Year 4 To be considered for progression to Year 4, applicants must have achieved an aggregate Year 2 mark of at least 50%
19. UCAS code	BSc: C301 MSci: C302
20. HECoS Code	tbc
21. Relevant QAA subject benchmark	Biosciences

22. Other External Reference Points

Quality Assurance Agency, The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies, 2014

Higher education credit framework for England: guidance on academic credit arrangements in higher education in England, Quality Assurance Agency, 2008

Degree Accreditation Criteria, Royal Society of Biology 2019

23. Aims of programme

The programme aims to:

• Produce graduates equipped to play a leading role in conservation as researchers, epidemiologists, academics and senior management in in-situ conservation programmes, national parks, zoological collections, universities and government departments worldwide

• Produce high-calibre graduates who can proceed to study for higher research degrees

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

• Gain research experience within the field of wildlife health sciences.

• 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

24. Overall Programme Level Learning Outcomes - the programme offers opportunities for students to achieve and demonstrate the following learning outcomes. Learning outcomes should be specified for all intermediate awards as well as for the terminal award.

On successful completion of the BSc course, students will be able to:	**Modules in which each learning outcome will be developed and assessed:**
Have a detailed understanding of cell biology, physiology, and genetics	Year 1 modules
Have a detailed understanding of the basis of infectious & non-communicable diseases and an appreciation of pharmacology and the broader applications for disease control	Year 2 modules
Display practical skills including the ability to design and execute experiments, analyse and interpret the resultant data, and present conclusions in a variety of formats.	Year 2 Research Project

Have developed the ability to access appropriate information, make methodical observations on the normal and abnormal functioning of biological systems, discriminate between important and relatively unimportant information and observations, reflect on information and observations, and solve problems, and discuss uncertainty in relation to scientific “facts”, and balance different schools of thought.	Year 3 Research Project Year 4 Research Project

Develop independent and lifelong learning skills to promote their own personal and professional development	Tutorials & Skills Workshops (across all modules)
Develop important employability skills including: Communication, Teamwork, Personal management and career planning, effective learning, Problem-solving, digital literacy, numeracy	Across all modules, with particular emphasis in projects and tutorials
Act with integrity, be honest, fair and compassionate in all their work. Maintain high ethical principles in relation to professional dealings, the use of information and experimentation in humans and animals	Investigative Projects (all years)
Have an appreciation of health and safety appropriate to laboratory and field work, including completion and understanding of risk assessment and COSHH documents,	Investigative Projects (all years)
Be able to assess the range of options available to practically intervene in wild animal health, and evaluate the practical limitations of a set of options	Interventions module
Be able to explain the basics of ecological theory and apply it to a range of wildlife health situations	Ecology: Individuals, Populations & Communities
On completion of the MSci course, students will additionally be able to:	
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.	• Research Skills module
Clearly and properly record their research.	• Research Skills module & Year 4 project
Demonstrate excellent professional conduct.	• Year 4 project
Identify specific areas for personal and skill development.	• Research Skills module
25. Teaching/learning methods	**Approximate total number of hours**
Lectures	8-10 hours per week
Practical Classes	8-10 hours per week
Tutorials and self-directed learning	5 hours per week
Research project (year 4)	20 hours per week
26. Assessment methods	**Percentage of total assessment load**
Coursework	BSc: 22% MSci: 20%
Written Exams	BSc: 45% MSci: 33%
Research Project	BSc: 33% MSci: 47%
27. Feedback	

In each module in each year, there are a number of formative feedback opportunities. These include written formative feedback on individual coursework, online quizzes with answers, group question and answer sessions, feedback to the year group about exam and ICA performance, feedback to individual students about exam and ICA performance (in one-to-one tutorials). Students are encouraged to seek feedback from lecturers and tutors as needed during all small group learning and practical classes. Frequent opportunities for formative feedback (oral and written) during investigative projects.

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

Term	Module Title	FHEQ Level	Credits	Compulsory or optional
Year 1, Term 1	Biology of the Cell	4	15	Compulsory
Year 1, Term 1	Inheritance, Genes and Evolution	4	15	Compulsory
Year 1, Term 1	Developmental Biology	4	15	Compulsory
Year 1, Term 2	The Moving Animal	4	15	Compulsory
Year 1, Term 2	Integrated Physiology 1	4	15	Compulsory
Year 1, Term 2	Integrated Physiology 2	4	15	Compulsory
Year 1, Term 3	Problem Definition and Investigation	4	15	Compulsory
Year 1, Term 3	Wildlife Health Sciences-based Research Project	4	15	Compulsory
Year 2, Term 1	Ageing and Degeneration	5	15	Compulsory
Year 2, Term 1	Basis of Disease	5	15	Compulsory
Year 2, Term 1	Principles of Infectious Diseases	5	15	Compulsory
Year 2, Term 2	Control of Infectious Diseases	5	15	Compulsory
Year 2, Term 2	Introduction to Wild Animal Biology	5	15	Compulsory
Year 2, Term 2	Imaging of Disease	5	15	Optional
Year 2, Term 2	Introduction to Animal Behaviour, Welfare, and Ethics	5	15	Optional
Year 2, Term 2	Introduction to One Health	5	15	Optional
Year 2, Term 3	Wildlife Health Sciences-based Research Project	5	30	Compulsory
Year 3, Pre-Term 1	Practical Investigative Biology	6	15	Optional
Year 3, Term 1	Comparative Animal Locomotion	6	30	Optional
Year 3, Term 1	Advanced Concepts in Reproduction	6	15	Optional
Year 3, Term 1	Development & Disease	6	15	Optional
Year 3, Term 1	Animal Behaviour & Cognition	6	15	Optional
Year 3, Term 1	Applied Molecular Microbiology	6	15	Optional

Year 3, Term 1	Parasitology of Human & Veterinary Tropical Diseases	6	15	Optional
Year 3, Term 1	Endocrine & Metabolic Syndromes	6	15	Optional
Year 3, Term 1	Advanced Skeletal Pathobiology	6	15	Optional
Year 3, Term 1	Science of Animal Welfare	6	15	Optional
Year 3, Term 1	Omic Approaches to Biology	6	15	Optional
Year 3, Term 1	KCL modules (various)	6	15	Optional
Year 3, Term 1	Biodiversity Action Plan Dissertation	6	30	Compulsory
Year 3, Term 2	Interventions (RVC & IoZ)	6	15	Compulsory
Year 3, Term 2	Ecology: Individuals, Populations and Communities	6	15	Compulsory
Year 3 Term 2	Wildlife Health Sciences-based Research Project (RVC or IoZ)	6	30	Compulsory
Year 4	Research Skills	7	15	Compulsory
Year 4	Wildlife Health Sciences-based Research Project (RVC or IoZ)	7	105	Compulsory
29. Work Placement Requirements or Opportunities		N/A, however BSc/MSci Biological Sciences (Wildlife Health Sciences) with Placement Year is also available		
30. Student Support		https://www.rvc.ac.uk/study/support-for-students and https://www.kcl.ac.uk/campuslife/services/student-services		
31. Assessment Assessment and Award Regulations https://www.rvc.ac.uk/about/the-rvc/academic-quality-regulations-procedures				

Version Number	Amended by	Date
1	Academic Quality Manager	13.07.2020
2	Pathway Leader – Stuart Patterson	12-8-20
3	Sciences Course Support Manager	30.06.2021
4	Academic Quality Manager	10.08.21
5	Course Director & Sciences Course Support Manager	25.04.22

Royal Veterinary College
University of London

PROGRAMME SPECIFICATION

1. Applies to cohort commencing in:	2022
2. Degree Granting Body	University of London
3. Awarding institution	The Royal Veterinary College (University of London)
4. Teaching institution	The Royal Veterinary College (University of London) and Institute of Zoology (IoZ, Zoological Society of London)
5. Programme accredited by	N/A
6. Name and title	Bachelor of Science / Master in Science in Biological Sciences with Placement Year (BSc Bio Sci PY) / (MSci Bio Sci PY)
7. Intermediate and Subsidiary Award(s)	Cert HE in Biological Sciences (WHS) Dip HE in Biological Sciences (WHS)
8. Course Management Team	Course Director: Dr Charlotte Lawson; Pathway Leader: Dr Stuart Patterson Year 1 Leader: Dr Donald Palmer; Year 2 Leader: Dr Abir Mukherjee; Year 3 Leader: Dr Claire Russell Year 4 Leader: Dr Isabel Orriss Year 5 Leader: Dr Stuart Patterson
9. FHEQ Level of Final Award	BSc Level 6 MSci Level 7 See: https://www.qaa.ac.uk/quality-code/qualifications-frameworks
10. Date of First Intake	2022
11. Frequency of Intake	Annually in September
12. Duration and Mode(s) of Study	Full time BSc with Placement Year– four years MSci with Placement Year– five years Face to face. A mix of teaching approaches including onsite and digital, synchronous and asynchronous, class and self-paced, expert-led, group and individual.
13. Registration Period *(must be in line with the General Regulations for Study and Award)*	

	Full Time		Part Time	
	Minimum	Maximum	Minimum	Maximum
BSc	2 Academic years	5 Academic years	4 Academic years	6 Academic years
MSci	3 Academic years	6 Academic years	4 Academic years	7 Academic years

14. Timing of Examination Board meetings	Annually in July (Year 1, 2, 4, 5), Annually in July the following year (Year 3).
15. Date of Last Periodic Review	n/a
16. Date of Next Periodic Review	2023
17. Language of study and assessment	English

18. Entry Requirements	BSc: https://www.rvc.ac.uk/study/undergraduate/bsc-wildlife-health-sciences#tab-entry-requirements MSci:

	https://www.rvc.ac.uk/study/undergraduate/bsc-wildlife-health-sciences#tab-entry-requirements Progression to the Placement Year Written offer of a Placement for year 3 from a placement provider. The proposed placement project must address the Learning Outcomes. The placement provider must satisfactorily complete an 'RVC Collaborative Partners' form. The student must attend a Placement Health and Safety Induction at the RVC. Travel Risk Assessments must be performed if the placement is abroad. A Placement Supervisor must be named, and their details provided. Progression to Year 5 To be considered for progression to Year 5, applicants must have achieved an aggregate Year 2 mark of at least 50%
19. UCAS code	BSc: C303 MSci: C304
20. HECoS Code	TBA
21. Relevant QAA subject benchmark	Biosciences

22. Other External Reference Points

Quality Assurance Agency, The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies, 2014

Higher education credit framework for England: guidance on academic credit arrangements in higher education in England, Quality Assurance Agency, 2008

ABPI, 2019, Bridging the skills gap in the biopharmaceutical industry: Maintaining the UK's leading position in life sciences.

23. Aims of programme

BSc Biological Sciences (Wildlife health Sciences)

• Produce graduates equipped to play a leading role in conservation as researchers, epidemiologists, academics and senior management in in-situ conservation programmes, national parks, zoological collections, universities and government departments worldwide

• Produce high-calibre graduates who can proceed to study for higher research degrees

Placement Year

- To prepare students for the workplace through development of employability skills and understanding of the sector and organisation in which they are placed
- To increase student employability by providing work and research experience with a placement provider
- To provide students with a framework for lifelong learning
- To provide opportunity to develop research skills, including synthesis of information, critical analysis and an appreciation of factors that contribute to uncertainties

MSci Biological Sciences (Wildlife health Sciences) Year

• Gain research experience within the field of wildlife health sciences.

• 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

24. Overall Programme Level Learning Outcomes - the programme offers opportunities for students to achieve and demonstrate the following learning outcomes. Learning outcomes should be specified for all intermediate awards as well as for the terminal award.

On successful completion of the BSc course, students will be able to:	**Modules in which each learning outcome will be developed and assessed:**
Have a detailed understanding of cell biology, physiology, and genetics	Year 1 modules
Have a detailed understanding of the basis of infectious & non-communicable diseases and an appreciation of pharmacology and the broader applications for disease control	Year 2 modules
Display practical skills including the ability to design and execute experiments, analyse and interpret the resultant data, and present conclusions in a variety of formats.	Year 2 Research Project
Have developed the ability to access appropriate information, make methodical observations on the normal and abnormal functioning of biological systems, discriminate between important and relatively unimportant information and observations, reflect on information and observations, and solve problems, and discuss uncertainty in relation to scientific “facts”, and balance different schools of thought.	Year 1, 2, 3, 4 and 5 Research Projects

Develop independent and lifelong learning skills to promote their own personal and professional development	Tutorials & Skills Workshops (across all modules)
Develop important employability skills including: Communication, Teamwork, Personal management and career planning, effective learning, Problem-solving, digital literacy, numeracy	Across all modules, with particular emphasis in projects and tutorials
Act with integrity, be honest, fair and compassionate in all their work. Maintain high ethical principles in relation to professional dealings, the use of information and experimentation in humans and animals	Investigative Projects (all years)
Have an appreciation of health and safety appropriate to laboratory and field work, including completion and understanding of risk assessment and COSHH documents,	Year 2, 3, 4 and 5 Research Projects
Be able to assess the range of options available to practically intervene in wild animal health, and evaluate the practical limitations of a set of options	Interventions module
Be able to explain the basics of ecological theory and apply it to a range of wildlife health situations	Ecology: Individuals, Populations & Communities
On completion of the placement year, students will additionally be able to:	
Employ models of reflection to explore and critically evaluate how these influence own learning, personal and professional planning; providing recommendations and action plan to improve	Placement Year 3: Professionalism module
Demonstrate experience within the biological sciences that is relevant to their degree	Year 1, 2, 3, 4 and 5 Research Project Placement Year 3: Both Professionalism and Project modules
Demonstrate an appreciation of the sector in which the student is working, a broad knowledge of the field, and their role within it	Placement Year 3: Both Professionalism and Project modules
Devise, interrogate and sustain arguments using scholarly sources and the accurate deployment of established techniques of analysis and enquiry within one topic.	Year 1, 2, 3, 4 and 5 Research Project Placement Year 3: Both Professionalism and Project modules
Demonstrate an appreciation of uncertainties and limits of knowledge	Year 1, 2, 3, 4 and 5 Research Project Placement Year 3: Both Professionalism and Project modules
On completion of the MSci course, students will additionally be able to:	

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.	• Research Skills module
Clearly and properly record their research.	• Research Skills module & Year 5 project
Demonstrate excellent professional conduct.	• Year 5 project
Identify specific areas for personal and skill development..	• Research Skills module
25. Teaching/learning methods	**Approximate total number of hours** These figures may differ during the COVID-19 pandemic
Lectures	8-10 hours per week
Practical Classes	8-10 hours per week
Tutorials and self-directed learning	5 hours per week
Placement Year 3	35 hours per week
Research project (year 5)	20 hours per week
26. Assessment methods	**Percentage of total assessment load**
Coursework	BSc: 20% MSci: 20%
Written Exams	BSc: 40% MSci: 30%
Research Project	BSc: 40% MSci: 50%
27. Feedback	

In each module in each year, there are a number of formative feedback opportunities. These include written formative feedback on individual coursework, online quizzes with answers, group question and answer sessions, feedback to the year group about exam and ICA performance, feedback to individual students about exam and ICA performance (in one-to-one tutorials). Students are encouraged to seek feedback from lecturers and tutors as needed during all small group learning and practical classes. Frequent opportunities for formative feedback (oral and written) during investigative projects.

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

Term	Module Title	FHEQ Level	Credits	Compulsory or optional
Year 1, Term 1	Biology of the Cell	4	15	Compulsory
Year 1, Term 1	Inheritance, Genes and Evolution	4	15	Compulsory
Year 1, Term 1	Developmental Biology	4	15	Compulsory
Year 1, Term 2	The Moving Animal	4	15	Compulsory
Year 1, Term 2	Integrated Physiology 1	4	15	Compulsory
Year 1, Term 2	Integrated Physiology 2	4	15	Compulsory
Year 1, Term 3	Problem Definition and Investigation	4	15	Compulsory
Year 1, Term 3	Wildlife Health Sciences-based Research Project	4	15	Compulsory
Year 2, Term 1	Ageing and Degeneration	5	15	Compulsory
Year 2, Term 1	Basis of Disease	5	15	Compulsory
Year 2, Term 1	Principles of Infectious Diseases	5	15	Compulsory
Year 2, Term 2	Control of Infectious Diseases	5	15	Compulsory
Year 2, Term 2	Introduction to Wild Animal Biology	5	15	Compulsory
Year 2, Term 2	Imaging of Disease	5	15	Optional
Year 2, Term 2	Introduction to Animal Behaviour, Welfare, and Ethics	5	15	Optional
Year 2, Term 2	Introduction to One Health	5	15	Optional
Year 2, Term 3	Wildlife Health Sciences-based Research	5	30	Compulsory
Year 3, sandwich placement year	Wildlife Health Sciences-related Placement Project	6	75	Compulsory
Year 3, sandwich placement year	Professionalism	6	45	Compulsory
Year 4, Pre-Term 1	Practical Investigative Biology	6	15	Optional
Year 4, Term 1	Comparative Animal Locomotion	6	30	Optional
Year 4, Term 1	Advanced Concepts in Reproduction	6	15	Optional
Year 4, Term 1	Development & Disease	6	15	Optional
Year 4, Term 1	Animal Behaviour & Cognition	6	15	Optional
Year 4, Term 1	Applied Molecular Microbiology	6	15	Optional

Year 4, Term 1	Parasitology of Human & Veterinary Tropical Diseases	6	15	Optional
Year 4, Term 1	Endocrine & Metabolic Syndromes	6	15	Optional
Year 4, Term 1	Advanced Skeletal Pathobiology	6	15	Optional
Year 4, Term 1	Science of Animal Welfare	6	15	Optional
Year 4, Term 1	Omic Approaches to Biology	6	15	Optional
Year 4, Term 1	KCL modules (various)	6	15	Optional
Year 4, Term 1	Biodiversity Action Plan Dissertation	6	30	Compulsory
Year 4, Term 2	Interventions (RVC & IoZ)	6	15	Compulsory
Year 4, Term 2	Ecology: Individuals, Populations and Communities	6	15	Compulsory
Year 4 Term 2	Wildlife Health Sciences-based Research Project (RVC or IoZ)	6	30	Compulsory
Year 5 (MSci only)	Research Skills	7	15	Compulsory
Year 5 (MSci only)	Wildlife Health Sciences-based Research Project (RVC or IoZ)	7	105	Compulsory
29. Work Placement Requirements or Opportunities		Compulsory Placement year at Level 6		
30. Student Support		https://www.rvc.ac.uk/study/support-for-students and https://www.kcl.ac.uk/campuslife/services/student-services		
31. Assessment Assessment and Award Regulations https://www.rvc.ac.uk/about/the-rvc/academic-quality-regulations-procedures				

Version Number	Amended by	Date
1	Academic Quality Manager	13.07.2020
2	Pathway Leader – Stuart Patterson	12-8-20
3	Sciences Course Support Manager	30.06.2021
4	Academic Quality Manager	10.08.21