Royal Veterinary College
University of London

1. Applies to cohort commencing in:	2024
2. Degree Granting Body	University of London
3. Awarding institution	The Royal Veterinary College
4. Teaching institution	The Royal Veterinary College
5. Programme accredited by	Royal Society of Biology (Advanced Accreditation)
6. Name and title	Master in Science in Applied Biological Research (MSci ABR) Master in Science in Applied Biological Research with Placement Year (MSci ABR PY)
7. Intermediate and Subsidiary Award(s)	Cert HE in Applied Biological Research, Dip HE in Applied Biological Research
8. Course Management Team	Course Director: Dr Charlotte Lawson Year 1 Leader: Dr Donald Palmer Year 2 Leader: Dr Abir Mukherjee Placement Year Leader (if applicable): Dr Claire Russell Year 3/4 Leader: Dr Isabel Orriss Years 4/5 MSci Year Leader: Dr Claire Russell
9. Level of Final Award	Level 7 See Office for Students (OfS) Sector-recognised standards
10. Date of First Intake	September 2002 for BSc, September 2014 for transfer from BSc Biological Sciences to MSci year 4 September 2015 for MSci Applied Biological Research September 2022 for Placement Year
11. Frequency of Intake	Annually in September
12. Duration and Mode(s) of Study	MSci – four years, full time. MSci with Placement Year– five years, full time. 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 Minimum: 3 Academic years; 4 Academic Years with Placement Year Maximum: 6 Academic years; 7 Academic Years with Placement Year
14. Timing of Examination Board meetings	Annually in July and September
15. Date of Last Periodic Review	2020
16. Date of Next Periodic Review	2024-2025
17. Language of study and assessment	English
18. Entry Requirements	https://www.rvc.ac.uk/study/undergraduate/msci-applied-biological-research#tab-entry-requirements

	Progression to the Placement Year and/or the Msci Placement Year Written offer of a Placement 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. Additional progression requirement to Msci Year To be considered for progression to MSci Year, applicants must have achieved an aggregate Year 2 mark of at least 50%
19. UCAS code	MSci: C103 MSci with Placement Year: C105
20. HECoS Code	100345
21. Relevant QAA subject benchmark	Biosciences
22. Other External Reference Points	
Regulations of the University of London Office for Students (OfS) Sector-recognised standards Quality Assurance Agency, The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies, 2014 Credit Level Descriptors for Higher Education, SEEC Royal Society of Biology Degree Accreditation Criteria	
23. Aims of programme	

BSc Biological Sciences:

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

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 Applied Biological Research Year:

- Gain research experience within biological and biomedical 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.

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 Bachelor of Science course, students will:	**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 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, solve problems, discuss uncertainty in relation to scientific “facts”, and balance different schools of thought.	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.	Projects
• Have an appreciation of health and safety appropriate to laboratory and field work, including completion and understanding of risk assessment and COSHH documents,	Projects
On successful 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	Professionalism and Project modules
• Demonstrate experience within the biological sciences that is relevant to their degree	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	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.	Professionalism and Project modules
• Demonstrate an appreciation of uncertainties and limits of knowledge	Professionalism and Project modules
On successful completion of the Master in Science 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 & MSci Year project
• Clearly and properly record their research.	Research Skills module & MSci Year project
• Demonstrate excellent professional conduct	Project
• Identify specific areas for personal and skill development.	Research Skills module & Placement Year
• Demonstrate an understanding of professional conduct within the workplace.	MSci Placement Year
• Appreciate the placement provider's strategic aims, finances and profitable activities.	MSci Placement Year
• Understand the importance of intellectual property and confidentiality in business and research.	MSci Placement Year
• An appreciation of the culture of the placement provider and of the relevance of the project to the organisation.	MSci Placement Year
• Demonstrate extensive research experience within biological sciences that is relevant to their degree.	Projects
• Demonstrate a deep and systematic understanding of current questions, problems and methods employed within the selected specialised research topic	Research Skills module Project
• Implement principles of project and experimental design and carefully execute, record and clearly disseminate research.	Year 5 Research Skills module Projects
• Use self-reflection to improve levels of knowledge, professionalism, personal skills and research skills.	Tutorials & Skills Workshops (across all modules) Projects Professionalism module Research Skills module

• Develop a sound appreciation of the research environment in which the student is working and their role within it.	Professionalism and Project modules Research Skills module Project

25. Teaching/learning methods	**Approximate total number of hours**
Lectures	8 -10 hours per week
Practical / Directed Learning sessions	8 -10 hours per week
Tutorials & self-directed Learning	5 hours per week
Placement Year	35 hours per week
MSci Year	35 hours per week

26. Assessment methods	**Percentage of total assessment load**
Coursework	Placement Year: 20% MSci Year: 25%
Written Exams	Placement Year: 30% MSci Year: 31%
Projects	Placement Year: 50% MSci Year: 44%

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 projects.

28. Work Placement Requirements or Opportunities	Yes, if doing the Placement Year at Level 6
29. Student Support	http://www.rvc.ac.uk/study/support-for-students and https://www.kcl.ac.uk/campuslife/services/student-services
30. Assessment Assessment and Award Regulations https://www.rvc.ac.uk/about/the-rvc/academic-quality-regulations-procedures	

31. Programme structures and requirements, levels, modules, credits and awards
NB: Students planning more than a Stage ahead should be aware that the College will not deliver any module or part of a programme if circumstances have changed to threaten its quality or viability. Such offerings could change after a student has started the course. However, the College will always offer alternatives that will be of equal cost in both fees and add-on expenses to the student and of equal academic value.

Stage 1 (Year One) Credit and Awards	**Details**
Total Credit to be studied at this stage	120 at Level 4
There are no optional modules at this stage	
Award available for completion of the Stage	Certificate in Higher Education Biological Sciences

Stage 1 (Year One) Compulsory Studies

Year	Term	Delivery Institution	Module Code	Module Title	Level	Credit Value	Status for Award	Prerequisites
1	1	RVC		Biology of the Cell	4	15	Compulsory	None
1	1	RVC		Inheritance, Genes and Evolution	4	15	Compulsory	None
1	1	RVC		Developmental Biology	4	15	Compulsory	None
1	2	RVC		The Moving Animal	4	15	Compulsory	None
1	2	RVC		Integrated Physiology 1	4	15	Compulsory	None
1	2	RVC		Integrated Physiology 2	4	15	Compulsory	None
1	3	RVC		Problem Definition and Investigation	4	15	Compulsory	None
1	3	RVC		Project	4	15	Compulsory	None

Stage 2 (Year Two) Credit and Awards	**Details**
Total Credit to be studied at this stage	120 at Level 5

Optional modules required in addition to compulsory modules	15 credits
Award available for completion of the Stage	Diploma in Higher Education Biological Sciences

Stage 2 Compulsory Studies

Year	Term	Delivery Institution	Module Code	Module Title	Level	Credit Value	Status for Award	Prerequisites
2	1	RVC		Basis of Disease	5	15	Compulsory	Stage 1
2	1	RVC		Ageing and Degeneration	5	15	Compulsory	Stage 1
2	1	RVC		Principles of Infectious Diseases	5	15	Compulsory	Stage 1
2	2	RVC		Control of Infectious Diseases	5	15	Compulsory	Stage 1
2	2	RVC		Principles of Pharmacology	5	15	Compulsory	Stage 1
2	3	RVC		Biological Sciences Project	5	30	Compulsory	Stage 1

Stage 2 Optional Studies

Year	Term	Delivery Institution	Module Code	Module Title	Level	Credit Value	Status for Award	Prerequisites
2	2	RVC		Applied Pharmacology	5	15	Optional	Stage 1
2	2	RVC		Imaging of Disease	5	15	Optional	Stage 1
2	2	RVC		Introduction to Animal Behaviour, Welfare & Ethics	5	15	Optional	Stage 1
2	2	RVC		Introduction to One Health	5	15	Optional	Stage 1

Stage 3 PY (Year Three Placement Year only) Credit and Awards	**Details**
Total Credit to be studied at this stage	120 at Level 6

There are no optional modules at this stage	
Award available for completion of the Stage	Diploma in Higher Education Biological Sciences with Placement Year

Year	Term	Delivery Institution	Module Code	Module Title	Level	Credit Value	Status for Award	Prerequisites
PY	All	RVC		Biological Sciences related Placement Project	6	75	Compulsory	Stage 2
PY	All	RVC		Professionalism	6	45	Compulsory	Stage 2

Stage 3 (Year Three without a Placement Year) Credit and Awards **Stage 4 PY (Year Four with a Placement Year) Credit and Awards**	**Details**
Total Credit to be studied at this stage	120 at Level 6
Optional modules required in addition to compulsory modules	60 credits
Award available for completion of the Stage	BSc (Hons) Biological Sciences with or without Placement Year (PY)

Stage 3 (Year Three without a Placement Year) Compulsory Studies
Stage 4 (Year Four with a Placement Year) Compulsory Studies

Year	Term	Delivery Institution	Module Code	Module Title	Level	Credit Value	Status for Award	Prerequisites
3 4 (PY)		RVC		Designated Biological Sciences Project	6	60	Compulsory	Stage 2

Stage 3 (Year Three without a Placement Year) Optional Studies
Stage 4 (Year Four with a Placement Year) Optional Studies

Year	Term	Delivery Institution	Module Code	Module Title	Level	Credit Value	Status for Award	Prerequisites
3, 4 PY	2	RVC		Advanced Concepts in Biobusiness	6	15	Optional	
3, 4 PY	1	RVC		Advanced Concepts in Reproduction	6	15	Optional	
3, 4 PY	1	RVC		Advanced Concepts in Skeletal Pathobiology	6	15	Optional	
3, 4 PY	1	RVC		Animal Behaviour and Cognition	6	15	Optional	

3, 4 PY	2	RVC		Animals and Human Society	6	15	Optional	
3, 4 PY	1	RVC		Applications of Pathology	6	30	Optional	Principles of Pathology
3, 4 PY	2	RVC		Applied Animal Welfare	6	15	Optional	
3, 4 PY	1	RVC		Applied Molecular Microbiology	6	15	Optional	
3, 4 PY	1	RVC		Comparative Animal Locomotion	6	30	Optional	
3, 4 PY	2	RVC		Comparative Anatomy	6	15	Optional	
3, 4 PY	2	RVC		Comparative Models of Disease	6	15	Optional	
3, 4 PY	1	RVC		Development and Disease	6	15	Optional	
3, 4 PY	1	RVC		Endocrine and Metabolic Syndromes	6	15	Optional	
3, 4 PY	2	RVC		Epidemiology: the Bigger Picture	6	15	Optional	
3, 4 PY	2	RVC		Infection and Immunity	6	30	Optional	
3, 4 PY	1	RVC		Omic Approaches to Biology	6	15	Optional	
3, 4 PY	1	RVC		Parasitology of Human and Veterinary tropical Diseases	6	15	Optional	
3, 4 PY	Pre-1	RVC		Practical Investigative Biology	6	15	Optional	
3, 4 PY	1	RVC		Principles of Pathology	6	30	Optional	Applications of Pathology
3, 4 PY	1	RVC		Science of Animal Welfare	6	15	Optional	
3, 4 PY	1&2	King's College London		Various KCL modules	6	15 or 30	Optional	

Stage 4 (Year Four without a Placement Year) Credit and Awards **Stage 5 (Year Five with a Placement Year) Credit and Awards**	**Details**

Total Credit to be studied at this stage	120 at Level 7
There are no optional modules	
Award available for completion of the Stage	MSci Applied Biological Sciences Research with or without a Placement Year (PY)

Stage 4 (Year Four without a Placement Year) Compulsory Studies
Stage 5 (Year Five with a Placement Year) Compulsory Studies

Year	Term	Delivery Institution	Module Code	Module Title	Level	Credit Value	Status for Award	Prerequisites
4 MSci only, 5 PY	1	RVC		Research Skills	7	15	Compulsory	
4 MSci only, 5 PY	All	RVC		Applied Biological Sciences Research Project	7	105	Compulsory	60 credit Stage 4 project

KCL = King's College London
PY = Placement Year
RVC = Royal Veterinary College

Version Number	Amended by	Date
1.0	Academic Quality Manager	06.02.2020
1.1	Academic Quality Manager	17.06.2020
1.2	Academic Quality Manager	30.06.2020
1.3	Course Director	02.02.2021
1.4	Course Director & Sciences Course Support Manager	25.04.2022
1.5	Academic Quality Manager	06.01.2023
1.6	BSc/MSci Course Director	18.10.2023
1.7	BSc/MSci Course Director	20.12.2023