Royal Veterinary College
University of London

PROGRAMME SPECIFICATIONS

Bachelor of Science in Animal Biology, Behaviour, Welfare and Ethics (BSc ABBWE)

Bachelor of Science in Animal Biology, Behaviour, Welfare and Ethics with Placement Year (BSc ABBWE 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
4. Teaching institution	The Royal Veterinary College
5. Programme accredited by	Royal Society of Biology
6. Name and title	Bachelor of Science in Animal Biology, Behaviour, Welfare and Ethics (BSc ABBWE)
7. Intermediate and Subsidiary Award(s)	Cert HE, Dip HE
8. Course Management Team	Course Director: Dr Charlotte Lawson; Pathway Leader: Dr Charlotte Burn; Year 1 Leader: Dr Donald Palmer; Year 2 Leader: Dr Abir Mukherjee; Year 3 Leader: Dr Isabel Orriss
9. FHEQ Level of Final Award	Level 6 See: https://www.qaa.ac.uk/quality-code/qualifications-and-credit-frameworks
10. Date of First Intake	2015
11. Frequency of Intake	Annually in September
12. Duration and Mode(s) of Study	Three 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 2 Academic years; Maximum 5 Academic years Part Time: Minimum 4 Academic years; Maximum 6 Academic years
14. Timing of Examination Board meetings	Annually in July
15. Date of Last Periodic Review	2020
16. Date of Next Periodic Review	2023
17. Language of study and assessment	English
18. Entry Requirements	https://www.rvc.ac.uk/study/undergraduate/bsc-animal-behaviour-and-welfare#tab-entry-requirements
19. UCAS code	D390
20. HECoS Code	100345
21. Relevant QAA subject benchmark	Biosciences
22. Other External Reference Points	
Regulations of the University of London	

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

SEEC Level Descriptors for Higher Education, SEEC, 2010

Royal Society of Biology Degree Accreditation Criteria 2019

23. Aims of programme

- 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 careers in academic and commercial research, and in a range of graduate careers that involve the management and welfare of companion, farm, laboratory, working and wild animals.

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.

E.g. 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 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
• Be able to scientifically measure, explain, and evaluate animal behaviour and welfare	Y1-3: Projects; Y2: Introduction to Animal Behaviour, Welfare and Ethics; Y3: Science of Animal Welfare; Animal Behaviour and Cognition; Applied Animal Welfare
• Be able to debate and analyse the political, social, legal and economic context of animal welfare	Y1-3: Projects; Y2: Introduction to Animal Behaviour, Welfare and Ethics; Y3: Applied Animal Welfare; Animals and Human Society
• 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.	Y3 Project

• 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)

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
26. Assessment methods	**Percentage of total assessment load**
Coursework	22%
Written Exams	45%
Projects	33%

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
NB: 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.

	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	Animal Behaviour Welfare & Ethics based Project	4	15	Compulsory
Year 2, Term 1	Basis of Disease	5	15	Compulsory
Year 2, Term 1	Aging and Degeneration	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	Principles of Pharmacology	5	15	Optional

Year 2, Term 2	Wild Animal Biology	5	15	Optional
Year 2, Term 2	Introduction to Animal Behaviour, Welfare and Ethics	5	15	Compulsory
Year 2, Term 3	Animal behaviour and Welfare Research Project	5	30	Compulsory
Year 3, Term 1	Science of Animal Welfare	6	15	Compulsory, unless all three other Compulsory Y3 modules are taken, in which case an optional 15 credit module maybe substituted
Year 3, Term 1	Animal Behaviour and Cognition	6	15	Compulsory, unless all three other Compulsory Y3 modules are taken, in which case an optional 15 credit module maybe substituted
Year 3, Term 2	Applied Animal Welfare	6	15	Compulsory, unless all three other Compulsory Y3 modules are taken, in which case an optional 15 credit module maybe substituted
Year 3, Term 2	Animals and Human Society	6	15	Compulsory, unless all three other Compulsory Y3 modules are taken, in which case an optional 15 credit module maybe substituted
Year 3	Animal Behaviour, Welfare or Ethics Research Project	6	60	Compulsory
Year 3, pre-Term 1	Practical Investigative Biology	6	15	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	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	Omic Approaches to Biology	6	15	Optional
Year 3, Term 2	Advanced Concepts in Biobusiness	6	15	Optional
Year 3, Term 2	Comparative Models of Disease	6	15	Optional
Year 3, Term 2	Epidemiology: the Bigger Picture	6	15	Optional
Year 3, Term 2	Comparative Anatomy	6	15	Optional
Year 3, Terms 1 & 2	Various KCL modules	6	15	Optional
29. Work Placement Requirements or Opportunities		N/A, however BSc Animal Biology, Behaviour, Welfare & Ethics with Placement Year option is also available		
30. Student Support		http://www.rvc.ac.uk/study/support-for-students		
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	17.06.2020
2	Dr Charlotte Lawson	12.08.2020
3	Sciences Course Support Manager	30.06.2021
4	Course Director & Sciences Course Support Manager	25.04.2022

Royal Veterinary College
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<table>
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Year 1 Leader: Dr Donald Palmer;
Year 2 Leader: Dr Abir Mukherjee;
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Year 4 Leader: Dr Isabel Orriss</td></tr>
<tr><td>9. FHEQ Level of Final Award</td><td>Level 6
See:
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<tr><td>10. Date of First Intake</td><td>2022</td></tr>
<tr><td>11. Frequency of Intake</td><td>Annually in September</td></tr>
<tr><td>12. Duration and Mode(s) of Study</td><td>Four years, full-time, face to face. A mix of teaching approaches including onsite and digital, synchronous and asynchronous, class and self-paced, expert-led, group and individual.</td></tr>
<tr><td>13. Registration Period (must be in line with the General Regulations for Study and Award)</td><td><table><tr><td colspan="2">Full Time</td><td colspan="2">Part Time</td></tr><tr><td>Minimum</td><td>Maximum</td><td>Minimum</td><td>Maximum</td></tr><tr><td>2 Academic years</td><td>5 Academic years</td><td>4 Academic years</td><td>6 Academic years</td></tr></table></td></tr>
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<tr><td>16. Date of Next Periodic Review</td><td>2023</td></tr>
<tr><td>17. Language of study and assessment</td><td>English</td></tr>
<tr><td>18. Entry Requirements</td><td>https://www.rvc.ac.uk/study/undergraduate/bsc-animal-behaviour-and-welfare#tab-entry-requirements

Progression to the Placement Year
Written offer of a Placement from a placement provider. The proposed placement project must address the Learning Outcomes. The</td></tr>
</table>

	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.
19. UCAS code	D391
20. HECoS Code	100345
21. Relevant QAA subject benchmark	Biosciences

22. Other External Reference Points

Regulations of the University of London

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

SEEC Level Descriptors for Higher Education, SEEC, 2010

Royal Society of Biology Degree Accreditation Criteria 2019

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

23. Aims of programme

BSc ABBWE

- 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 careers in academic and commercial research, and in a range of graduate careers that involve the management and welfare of companion, farm, laboratory, working and wild animals.

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

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.

E.g. 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 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
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• 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 and 4 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, and 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 and 4 Research Projects
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, and 4 Research Projects 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, and 4 Research Projects Placement Year 3: Both Professionalism and Project modules
• Demonstrate an appreciation of uncertainties and limits of knowledge	Year 1, 2, 3, and 4 Research Projects Placement Year 3: Both Professionalism and Project modules

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 / Directed Learning sessions	8-10 hours per week
Tutorials & self-directed Learning	5 hours per week
Placement Year 3	35 hours per week
26. Assessment methods	**Percentage of total assessment load**
Coursework	20%
Written Exams	40%
Projects	40%

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
NB: 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.

	Module Title	FHEQ Level	Credits	Compulsory or optional
Year 1, Term 1	Biology of the Cell	4	15	Compulsory
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Year 1, Term 1	Developmental Biology	4	15	Compulsory
Year 1, Term 2	The Moving Animal	4	15	Compulsory
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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	Animal Behaviour Welfare & Ethics based Project	4	15	Compulsory
Year 2, Term 1	Basis of Disease	5	15	Compulsory
Year 2, Term 1	Aging and Degeneration	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	Principles of Pharmacology	5	15	Optional
Year 2, Term 2	Wild Animal Biology	5	15	Optional
Year 2, Term 2	Introduction to Animal Behaviour, Welfare and Ethics	5	15	Compulsory
Year 2, Term 3	Animal behaviour and Welfare Research Project	5	30	Compulsory
Year 3, sandwich placement	ABBWE-related Placement Project	6	75	Compulsory
Year 3, sandwich placement	Professionalism	6	45	Compulsory
Year 4, Term 1	Science of Animal Welfare	6	15	Compulsory, unless all three other Compulsory Y3 modules are taken, in which case an optional 15 credit module maybe substituted
Year 4, Term 1	Animal Behaviour and Cognition	6	15	Compulsory, unless all three other Compulsory Y3 modules are taken, in which case an optional 15 credit module maybe substituted
Year 4, Term 2	Applied Animal Welfare	6	15	Compulsory, unless all three other Compulsory Y3 modules are taken, in which case an optional 15 credit module maybe substituted
Year 4, Term 2	Animals and Human Society	6	15	Compulsory, unless all

				three other Compulsory Y3 modules are taken, in which case an optional 15 credit module maybe substituted
Year 4	Animal Behaviour, Welfare or Ethics Research Project	6	60	Compulsory
Year 4, pre-Term 1	Practical Investigative Biology	6	15	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	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	Omic Approaches to Biology	6	15	Optional
Year 4, Term 2	Advanced Concepts in Biobusiness	6	15	Optional
Year 4, Term 2	Comparative Models of Disease	6	15	Optional
Year 4, Term 2	Epidemiology: the Bigger Picture	6	15	Optional
Year 4, Term 2	Comparative Anatomy	6	15	Optional
Year 4, Terms 1 & 2	Various KCL modules	6	15	Optional
29. Work Placement Requirements or Opportunities		Compulsory Placement year at Level 6		
30. Student Support		http://www.rvc.ac.uk/study/support-for-students		
31. Assessment Assessment and Award Regulations https://www.rvc.ac.uk/about/the-rvc/academic-quality-regulations-procedures				

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