

**Royal Holloway, University of London**  
**Course specification for an undergraduate award**  
**BSc Zoology with a Year in Industry (C302)**

**Section 1 – Introduction to your course**

This course specification is a formal document, which provides a summary of the main features of your course and the learning outcomes that you might reasonably be expected to achieve and demonstrate if you take full advantage of the learning opportunities that are provided. Further information is contained in the College prospectus, and in various handbooks, all of which you will be able to access online. Alternatively, further information on the College's academic regulations and policies can be found [here](#). Further information on the College's Admissions Policy can be found [here](#).

Your degree course in Zoology with a Year in Industry is delivered in four stages, each of which, apart from the year in industry, comprises one year of full-time study, or two years of part-time study, during which you must follow modules to the value of 120 national credits. The curriculum is based around a core set of mandatory modules providing a broad base of biology and zoology in the first stage, with essential training in evolution, systematic and quantitative biology and animal behaviour in stage two and a study of behavioural ecology and biodiversity as well as an individual research project in the final Stage.

**Stage one** comprises six mandatory modules (totalling 90 credits) which seek to provide a broadly based introduction to zoology. These modules introduce the core areas of Ecology and Conservation, Vertebrate Evolution and Diversity, Genetics, Cell Biology and Animal Physiology. The remaining credits are taken from the optional choices available, from the selection of Biomes and Ecosystems, Biology in a Changing World, Pathophysiology or Fundamental Biochemistry, enabling you to adapt the degree towards your particular interests. In **Stage two** you take 4 mandatory modules to the value of 60 credits and choose further optional modules from the range of organismal and molecular options available. The mandatory modules include Animal Behaviour, Evolution and Invertebrate Biology. The Stage two options include a residential Marine Biology field course held at the Millport Marine Biology Centre in Scotland, as well as the Practical Field Ecology module that operates on and around the campus. Other options include Developmental Biology, Microbiology, Cell Dynamics and Human Physiology. In **Stage three** you spend a year in a relevant placement setting, to gain valuable experience in the workplace. The assessment from this placement counts as 30 credits which for the purposes of award classification is counted in the final stage. In **Stage four** you take 2 mandatory modules to the value of 45 credits, including Behavioural Ecology and the Individual Research Project. You also choose 4 of the organismal and molecular options available. Most of these modules closely reflect the research interests of members of staff who are all specialists in their fields. Optional modules at this Stage include Extreme Animal Physiology, Conservation Science, Evolutionary Ecology of Vertebrates, Circadian Biology, as well as the residential overseas field module considering Mediterranean Conservation and Ecology. The individual research project provides training in a specialised research area of zoology and also in generic skills such as literature searching, report writing, use of word processing, graphics and statistics and in independent work. The project is regarded as your graduate capstone experience, as it is the culmination of your training in experimental design, research techniques, data analysis and presentation.

The course provides coverage across a range of modern animal topics, and involves training in a variety of practical techniques and skills relevant to research in the biological sciences. The system is also flexible and allows you to transfer to other degree streams within the Department up to the start of the second term, or indeed to other Organismal Bioscience degrees up to the start of the second year. You can also take up to 30 credits from outside the Department of Biological Sciences, but within other Science Departments, during stage two/four. Options are selected in consultation with the student's Personal Tutor and the Director of Teaching/Department Lead in UG Education.

While Royal Holloway keeps all the information made available under review, courses and the availability of individual modules, especially optional modules are necessarily subject to change at any time, and you are therefore advised to seek confirmation of any factors which might affect your decision to follow a specific course. In turn, Royal Holloway will inform you as soon as is practicable of any significant changes which might affect your studies.

The following is brief description for some of the most important terminology for understanding the content of this document:

*Degree course* – May also be referred to as 'degree programme' or simply 'programme', these terms refer to the qualification you will be awarded upon successful completion of your studies.

*Module* – May also be referred to as 'course', this refers to the individual units you will study each year to complete your degree course. Undergraduate degrees at Royal Holloway comprise a combination of modules in multiples of 15 credits to the value of 120 credits per year. On some degree courses a certain number of optional modules must be passed for a particular degree title.

Section 2 – Course details			
<b>Date of specification update</b>	March 2020	<b>Location of study</b>	Egham Campus
<b>Course award and title</b>	BSc Zoology with a Year in Industry	<b>Level of study</b>	Undergraduate
<b>Course code</b>	3480	<b>UCAS code</b>	C302
<b>Year of entry</b>	2020/21		
<b>Awarding body</b>	Royal Holloway, University of London		
<b>Department or school</b>	Department of Biological Sciences School of Life Sciences and the Environment	<b>Other departments or schools involved in teaching the course</b>	N/A
<b>Mode(s) of attendance</b>	Full-time or Part-time	<b>Duration of the course</b>	Four years
<b>Accrediting Professional, Statutory or Regulatory Body requirement(s)</b>	You must pass the BS3010 Individual Research Project in order to qualify for an Honours Degree in Zoology with a Year in Industry; this is a requirement of the Royal Society of Biology for an accredited degree.		
<b>Link to Coursefinder for further information:</b>	<a href="https://www.royalholloway.ac.uk/studying-here/">https://www.royalholloway.ac.uk/studying-here/</a>	<b>For queries on admissions:</b>	<a href="mailto:study@royalholloway.ac.uk">study@royalholloway.ac.uk</a>

Section 3 – Degree course structure										
3.1 Mandatory module information										
The following table summarises the mandatory modules which students must take in each year of study										
Year	Module code	Module title	Contact hours*	Self-study hours	Written exams**	Practical assessment**	Coursework**	Credits**	FHEQ level	Module status (see below)
1	BS1021	Becoming a Bioscientist	66	84		25%	75%	15	4	MC
1	BS1042	Vertebrate Evolution and Diversity	43	107	70%		30%	15	4	MC
1	BS1051	Ecology and Conservation	42	108	70%		30%	15	4	MC
1	BS1061	Introductory Animal Physiology	39	111	70%		30%	15	4	MC
1	BS1071	Cell Biology and the Origin of Life	45	105	60%	10%	30%	15	4	MC
1	BS1072	Genetics	35	115	70%		30%	15	4	MC
2	BS2010	Invertebrate Biology: Structure, Behaviour and Evolution	48	102	70%		30%	15	5	MC
2	BS2120	Biological Data Analysis and Interpretation	40	110	25%	45%	30%	15	5	MC
2	BS2140	Animal Behaviour	29	121	70%		30%	15	5	MC
2	BS2160	Evolution	29	121	80%		20%	15	5	MC
3	BS3900	Year in Industry	Up to 50 weeks	101		40%	60%	30	6	MNC
4	BS3010	Individual Research Project	183	117		25%	75%	30	6	MNC
4	BS3160	Behavioural Ecology	30	120	60%	10%	30%	15	6	MC

This table sets out the most important information for the mandatory modules on your degree course. These modules are central to achieving your learning outcomes, so they are compulsory, and all students on your degree course will be required to take them. You will be automatically registered for these modules each year. Mandatory modules fall into two categories; 'condonable' or 'non-condonable'.

In the case of mandatory 'non-condonable' (MNC) modules, you must pass the module before you can proceed to the next year of your course, or to successfully graduate with a particular degree title. In the case of mandatory 'condonable' (MC) modules, these must be taken but you can still progress or graduate even if you do not pass them. Please note that although Royal Holloway will keep changes to a minimum, changes to your degree course may be made where reasonable and necessary due to unexpected events. For example; where requirements of relevant Professional, Statutory or Regulatory Bodies have changed and course requirements must change accordingly, or where changes are deemed necessary on the basis of student feedback and/or the advice of external advisors, to enhance academic provision.

\*Contact hours come in various different forms, and may take the form of time spent with a member of staff in a lecture or seminar with other students. Contact hours may also be laboratory or, studio-based sessions, project supervision with a member of staff, or discussion through a virtual learning environment (VLE). These contact hours may be with a lecturer or teaching assistant, but they may also be with a technician, or specialist support staff.

\*\*The way in which each module on your degree course is assessed will also vary, however, the assessments listed above are all 'summative', which means you will receive a mark for it which will count towards your overall mark for the module, and potentially your degree classification, depending on your year of study. On successful completion of the module you will gain the credits listed. 'Coursework' might typically include a written assignment, like an essay. Coursework might also include a report, dissertation or portfolio. 'Practical assessments' might include an oral assessment or presentation, or a demonstration of practical skills required for the particular module.

### 3.2 Optional modules

In addition to mandatory modules, there will be a number of optional modules available during the course of your degree. The following table lists a selection of optional modules that are likely to be available. However, not all may be available every year. Although Royal Holloway will keep changes to a minimum, new options may be offered or existing ones may be withdrawn. For example; where reasonable and necessary due to unexpected events, where requirements of relevant Professional, Statutory or Regulatory Bodies (PSRBs) have changed and course requirements must change accordingly, or where changes are deemed necessary on the basis of student feedback and/or the advice of External Advisors, to enhance academic provision. There may be additional requirements around option selection, so it is important that this specification is read alongside your department's Student Handbook, which you can access via their [webpage](#).

Year 1	Year 2	Year 4
BS1032: Fundamental Biochemistry	BS2001X: Marine Biology	BS3020: Special Study: Dissertation
BS1041: Biology in a Changing World	BS2005: Microbiology	BS3030: Biology of Parasitic Diseases
BS1052: Biomes and Ecosystems	BS2040: Cell Dynamics: Division and Movement	BS3060: Conservation Science

BS1062: Introduction to Human Physiology in Health and Disease	BS2050: Human Physiology in Health and Disease II	BS3090: Entomology: Pure and Applied
BS1091: Protein Biochemistry and Enzymology	BS2060: Developmental Biology	BS3100 Borneo Rainforest Field Course
	BS2090: Insects, Plants and Fungi: Ecology & Applications	BS3110: Mediterranean Conservation and Ecology Field Course
	BS2110: Practical Field Ecology	BS3120: Population and Community Ecology
	BS2150: Applications of Molecular Genetics in Biology	BS3180: Marine Ecology and Biodiversity
	BS2530: Molecular Biology	BS3210: Evolutionary Ecology of Vertebrates
	BS2540: Molecular and Cellular Immunology	BS3220: Extreme Animal Physiology
		BS3230: Circadian Biology
		BS3530: Applications of Genetic Engineering in Health and Disease
		BS3540: Cell and Molecular Biology of Cancer
		BS3570: Human Embryology and Endocrinology
<b>3.3 Optional module requirements</b>		
<p>In stage 1 you must choose options to the value of 30 credits from the list of stage one modules offered by the Department.</p> <p>In stage 2 you must choose options to the value of 60 credits from the list of stage two modules offered by the Department.</p> <p>In stage 4 you must choose options to the value of 75 credits from the list of stage three modules offered by the Department.</p>		

**Section 4 - Progressing through each year of your degree course**

For further information on the progression and award requirements for your degree, please refer to Royal Holloway's [Academic Regulations](#).

**Year in Industry**

Students taking an industrial year take additional module BS3900 and thus have 150 credits in their final year.

Students on degree courses with Year in Industry need to fulfil the requirements set out in the departmental Year in Industry Handbook in order to progress to the placement and be eligible for the degree title.

### Section 5 – Educational aims of the course

The aims of the Honours Degree course in Zoology with a Year in Industry are to:

- provide a sound knowledge and understanding of the organismal and molecular principles of the subject through a core set of modules, and develop an insight into the current frontiers of knowledge, primarily by selecting a series of second and more particularly specialised final year module options which focus on selected areas of topical importance in zoology;
- develop through a flexible and progressive structure, a range of subject-specific and transferable skills, including practical laboratory skills, fieldwork skills, self-management, information retrieval, communication and presentation skills, working with others, decision making and meeting deadlines, that equip you for future employment;
- provide professional experience in a relevant workplace environment;
- provide experience of independent research through a final year project that focuses on an area of zoology;
- produce graduates who can work safely and responsibly with biological materials, laboratory equipment and in the field.

## Section 6 - Course learning outcomes

In general terms, the courses provide opportunities for students to develop and demonstrate the following learning outcomes. (*Categories – Knowledge and understanding (K), Skills and other attributes (S), and Transferable skills (\*)*)

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. a critical understanding of the diversity and complexity of life and life processes <b>(K)</b>;</li> <li>2. a familiarity with terminology, nomenclature and classification systems <b>(K)</b>;</li> <li>3. a critical understanding of the physiology, and molecular and cellular basis of life processes <b>(K)</b>;</li> <li>4. a critical understanding of genetics and of the evolutionary processes that give rise to the diversity and complexity of life <b>(K)</b>;</li> <li>5. a critical understanding of the diversity and evolution of animals, their adaptations to different life-styles and habitats, how they function and their behaviour <b>(K)</b>;</li> <li>6. a critical knowledge of ecological systems and of the interrelationships between organisms and the environment they live in <b>(K)</b>;</li> <li>7. understanding cutting-edge developments in a range of areas specific to the subject <b>(K)</b>;</li> <li>8. knowledge and engagement with philosophical and ethical issues arising from some of the current developments in the biosciences <b>(K)</b>;</li> <li>9. well-developed strategies for updating, maintaining and enhancing their knowledge of the Biosciences <b>(K)</b>.</li> <li>10. appreciation for the relevance of zoology and the importance of the scientific (research) approach in employment settings and organisations, and an understanding of expected professional standards in the workplace <b>(K)</b>.</li> <li>11. a range of laboratory and fieldwork techniques of key importance in zoology <b>(S)</b>;</li> <li>12. working safely in a scientific laboratory and in the field, with some knowledge and understanding of standard safety protocols and Good Laboratory Practice <b>(S)</b>;</li> <li>13. the ability to employ and evaluate suitable experimental methods (both laboratory and fieldwork based) for the investigation of relevant areas of zoology <b>(S)</b>;</li> </ol> | <ol style="list-style-type: none"> <li>14. the ability to apply relevant numerical skills, including statistics to biological data <b>(S)</b>;</li> <li>15. the ability to access bioscience information from a variety of sources in order to maintain and enhance knowledge of the Biosciences and to communicate the principles clearly in oral and written forms <b>(S)</b>;</li> <li>16. assessing the merits of contrasting subject-specific theories, paradigms, concepts and principles <b>(S)</b>;</li> <li>17. applying subject-specific knowledge and understanding to address familiar and unfamiliar problems <b>(S)</b>;</li> <li>18. ability to plan, design, execute and present an independent piece of research through a theoretical or practical project in zoology, including the production of the final year research project/report <b>(S)</b>;</li> <li>19. taking personal responsibility for learning, and developing habits of reflection on that learning <b>(S*)</b>;</li> <li>20. identifying, retrieving (including the use of online computer searches), sorting and exchanging information through study skills session and tutorial course <b>(S*)</b>;</li> <li>21. abstracting and synthesising information, and developing a reasoned argument <b>(S*)</b>;</li> <li>22. critically interpreting and evaluating experimental data and relevant literature, analysing and solving problems, and decision-making <b>(S*)</b>;</li> <li>23. developing creativity by applying original ideas, being imaginative or using innovative approaches for tackling problems <b>(S*)</b>;</li> <li>24. written communication and verbal presentation <b>(S*)</b>;</li> <li>25. information technology (including spreadsheets, databases, word processing, email and WWW) <b>(S*)</b>;</li> <li>26. interpersonal skills, including working in groups/teams and recognising and respecting the viewpoints of others <b>(S*)</b>;</li> <li>27. CV and career preparation <b>(S*)</b>;</li> <li>28. demonstrating the key skills for successful employment to a professional standard in industry or other organisations, including good time management, team working, record keeping, showing appreciation of health and safety issues, and showing leadership or management potential <b>(S*)</b>.</li> </ol> |
|---|---|



### Section 7 - Teaching, learning and assessment

The overall strategy is to provide a progressive approach to biological concepts and systems of increasing complexity through teaching methods that aid learning and stimulate interest. Teaching is mostly by means of lectures, laboratory and fieldwork classes, seminars, tutorials, study/revision sessions, with knowledge and understanding further developed by guided independent study. Learning and analytical ability are developed and reinforced through problem solving, essay writing, practical classes (both laboratory and fieldwork), critical evaluation and by giving you the opportunity to design, execute and evaluate your own experiments. You are encouraged to acquire further knowledge beyond taught material, e.g. by reading topical reviews, original research literature and attending research seminars, especially in the final year.

The practical assignments associated with stage one and stage two modules provide training in a range of subject specific laboratory techniques, including safety assessment. The culmination of these skills is demonstrated in the final stage research project, and for literature skills the preparation of a literature report. You have to prepare your own risk assessment prior to commencing your final year project work.

Training in intellectual and key transferable skills is embodied throughout the course and forms a strong element of the tutorial and study session programme. You are required to meet basic standards in information technology.

Assessment of knowledge and understanding is by formal written examinations, practical exams, and a range of coursework including practical assignments (both laboratory and fieldwork based), poster preparation, oral presentations, essays and the individual research project. Full details of the assessments for individual modules can be obtained from the [Department](#).

### Section 8 – Additional costs

Other essential costs - £223.

**These estimated costs relate to studying this particular degree course at Royal Holloway. General costs such as accommodation, food, books and other learning materials and printing etc., have not been included, but further information is available on our website.**

Section 9 – Indicators of quality and standards	
<b>QAA Framework for Higher Education Qualifications (FHEQ) Level</b>	4-6
Your course is designed in accordance with the FHEQ to ensure your qualification is awarded on the basis of nationally established standards of achievement, for both outcomes and attainment. The qualification descriptors within the FHEQ set out the generic outcomes and attributes expected for the award of individual qualifications. The qualification descriptors contained in the FHEQ exemplify the outcomes and attributes expected of learning that results in the award of higher education qualifications. These outcomes represent the integration of various learning experiences resulting from designated and coherent courses of study.	
<b>QAA Subject benchmark statement(s)</b>	<a href="http://www.qaa.ac.uk/quality-code/subject-benchmark-statements">http://www.qaa.ac.uk/quality-code/subject-benchmark-statements</a>
Subject benchmark statements provide a means for the academic community to describe the nature and characteristics of courses in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should have demonstrated.	

### Section 10 – Further information

This specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate when taking full advantage of the learning opportunities that are available. More detailed information on modules, including teaching and learning methods, and methods of assessment, can be found via the online [Module Catalogue](#). The accuracy of the information contained in this document is reviewed regularly by the university, and may also be checked routinely by external agencies, such as the Quality Assurance Agency (QAA).

Your course will be reviewed regularly, both by the university as part of its cyclical quality enhancement processes, and/or by your department or school, who may wish to make improvements to the curriculum, or in response to resource planning. As such, your course may be revised during the course of your study at Royal Holloway. However, your department or school will take reasonable steps to consult with students via appropriate channels when considering changes. All continuing students will be routinely informed of any significant changes.

### Section 11 – Intermediate exit awards (where available)

You may be eligible for an intermediate exit award if you complete part of the course as detailed in this document. Any additional criteria (e.g. mandatory modules, credit requirements) for intermediate awards is outlined in the sections below.

Award	Criteria	Awarding body
Diploma in Higher Education (DipHE)	Pass in 210 credits of which at least 90 must be at or above FHEQ Level 4 and at least 120 of which must be at or above FHEQ Level 5	Royal Holloway and Bedford New College
Certificate in Higher Education (CertHE)	Pass in 120 credits of which at least 90 must be at or above FHEQ Level 4	Royal Holloway and Bedford New College

### Section 12 - Associated award(s)

BSc Zoology with a Year in Industry	BSc Zoology
-------------------------------------	-------------