

**Overview**

<b>Programme Code</b>	41243
<b>Programme Title</b>	Animal Behaviour
<b>Awarding Institution</b>	Liverpool John Moores University
<b>Programme Type</b>	Degree with Foundation
<b>Programme Leader</b>	Adam Reddon
<b>Link Tutor(s)</b>	

## Awards

Award Type	Award Description	Award Learning Outcomes
Alternative Exit	Diploma of Higher Education (Fnd) - DHEF	Apply a broad knowledge base, both theoretical and practical, to determine solutions to a range of scientific problems relating to animal behaviour. Critically analyse information, synthesising and summarising outcomes as they pertain to the study of animal behaviour. Design an experiment, investigation, survey or other means to test a hypothesis about an aspect of animal behaviour, with an awareness of ethical issues and report on those investigations. Accept responsibility for determining and achieving personal and/or group outcomes.
Alternative Exit	Diploma in Higher Education (SW) (Fnd) - SDHEF	Apply a broad knowledge base, both theoretical and practical, to determine solutions to a range of scientific problems relating to animal behaviour. Critically analyse information, synthesising and summarising outcomes as they pertain to the study of animal behaviour. Design an experiment, investigation, survey or other means to test a hypothesis about an aspect of animal behaviour, with an awareness of ethical issues and report on those investigations. Accept responsibility for determining and achieving personal and/or group outcomes. In addition to the learning outcomes for the main target award, demonstrate the professional and personal skills necessary for effective employment within a professional environment.
Alternative Exit	Bachelor of Science (SW) (Fnd) - SBSF	Demonstrate a broad and comparative knowledge of the general scope of the subject, its different areas and applications, and its interactions with related subjects. A detailed knowledge of a defined subject or a more limited coverage of a specialist area balanced by a wider range of study. In each case, specialised study will be informed by current developments in the subject. Demonstrate a critical understanding of the essential theories, principles and concepts of the subject(s) and of the ways in which these are developed through the main methods of enquiry in the subject.
Alternative Exit	Bachelor of Science (Fnd) - BSF	Demonstrate a broad and comparative knowledge of the general scope of the subject, its different areas and applications, and its interactions with related subjects. A detailed knowledge of a defined subject or a more limited coverage of a specialist area balanced by a wider range of study. In each case, specialised study will be informed by current developments in the subject. Demonstrate a critical understanding of the essential theories, principles and concepts of the subject(s) and of the ways in which these are developed through the main methods of enquiry in the subject.
Target Award	Bachelor of Science with Honours (Fnd) - BSHF	See Learning Outcomes Below

Alternative Exit	Certificate of Higher Education (Fnd) - CHEF	Recall basic principles and theory of animal behaviour and its practical application. Recall basic principles and theory of animal behaviour and its practical application. Explain key biological concepts underpinning animal behaviour and interpret scientific data. Explain key biological concepts underpinning animal behaviour and interpret scientific data. Operate in a range of scientific contexts related to animal behaviour and use appropriate written and presentation skills to portray animal behaviour issues. Operate in a range of scientific contexts related to animal behaviour and use appropriate written and presentation skills to portray animal behaviour issues.
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<b>Alternate Award Names</b>	
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## External Benchmarks

<b>Subject Benchmark Statement</b>	UG-Biosciences (2019)
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## Programme Offering(s)

Mode of Study, Mode of Delivery	Intake Month	Teaching Institution	Programme Length
Full-Time, Face to Face	September	LJMU Taught	5 Years
Full-Time, Face to Face	September	LJMU Taught	4 Years

## Aims and Outcomes

### Educational Aims of the Programme

The Animal Behaviour programme aims to develop a core of knowledge, understanding and skills associated with the scientific study of animal behaviour, in order to produce graduates who are equipped to pursue employment in animal welfare, husbandry, conservation and research. Core modules provide a comprehensive understanding to four key explanations of animal behaviour: 1. The adaptive function of behaviour in the wild 2. The evolutionary history of behaviour 3. The physiological underpinnings (neural and hormonal control) of behaviour 4. The development of processes involved in the expression of behaviour The programme aims to provide opportunities for work-related learning to enable students to engage with the applied nature of animal behaviour and appreciate how their skills and learning can contribute to their future career. To encourage students to engage with the development of employability skills by completing a self-awareness statement. In addition to the aims for the main target award, the sandwich programme aims to provide students with an extended period of work experience at an approved partner that will complement their programme of study at LJMU. This will give the students the opportunity to develop professional skills relevant to their programme of study, as well as attitude and behaviours necessary for employment in a diverse and changing environment.

## Learning Outcomes

Code	Description
PLO1	demonstrate an understanding of the fundamental principles of genetics, ecology, physiology and neurobiology and their role in behavioural expression
PLO2	recognise the implications of professional ethics and standards and apply them
PLO3	design, plan, and collect primary (lab or field), or secondary, data using appropriate methodologies to address a specific question or problem
PLO4	prepare, process, interpret and present data, using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and programmes for presenting data visually
PLO5	undertake field and/or laboratory investigations with due regard for health and safety policies
PLO6	demonstrate an understanding of and apply professional standards and ethical issues relating to animal welfare and behavioural research
PLO7	demonstrate written communication using appropriate academic style and format with regard to academic integrity
PLO8	understand and manipulate numerical data, apply appropriate statistical analyses, and problem solving
PLO9	communicate effectively using a variety of methods including written, verbal and visual techniques and in formats appropriate to the audience
PLO10	work in a team and demonstrate self-awareness and interpersonal skills
PLO11	develop the skills necessary for independent lifelong learning (for example working independently, time management, organisational, enterprise and knowledge transfer skills)
PLO12	explain the evolutionary origins of behaviour
PLO13	discuss the adaptive function of behaviour including the concept of inclusive fitness and its significance in the survival and reproductive strategies shown by animals
PLO14	explain the developmental processes of behavioural expression
PLO15	create and apply studies in animal behaviour to husbandry, welfare and conservation
PLO16	demonstrate knowledge of the key underlying concepts in the natural sciences
PLO17	recognise and apply key theories, paradigms, concepts or principles in animal behaviour
PLO18	analyse, synthesise and summarise information critically including published research or reports
PLO19	apply knowledge and understanding to problem solving, and formulate and test hypotheses

## Programme Structure

### Programme Structure Description

Study Abroad Students will be offered the opportunity of study abroad at Level 5. Students can choose either Option A or Option B unless they undertake the Sandwich Year, in which case Option B is not available: Option A: replacement of 60 credits of Level 5 with appropriate study abroad The programme will offer the opportunity of 60 credits of study at Level 5. Students will be enrolled on a 480 credit honours with study abroad programme. A 60 credit Level 5 study abroad module [5257NATSCI Study Semester Abroad Animal Behaviour] will normally replace the semester 2 modules on the standard programme. This study abroad should cover the same learning outcomes as the modules being replaced. The modules to be studied in the host institution must be agreed in advance. The Level 5 mean for the final award mark will be calculated based upon the 120 credits at Level 5. Option B: additional study year abroad following Level 5 The programme will offer the opportunity of an additional study year abroad following Level 5. Students will be enrolled on a 600 credit honours with study abroad programme. Of those 600 credits, 120 will be taken via a Level 5 study abroad module [5253NATSCI Study Year abroad]. The modules to be studied in the host institution must be agreed in advance. The Level 5 mean for the final award mark will be calculated based upon the 240 credits at Level 5. Sandwich Year The placement year will follow Level 5 and students will be enrolled on a 480 credit honours sandwich programme. Students must successfully complete a 12 month (or two 6 month) professional training placement and take module 5221NATSCI. The Level 5 mean for the final award mark will be calculated based upon the 240 credits at Level 5. This updated version of the programme applies to students commencing level 6 of the programme in September 2022 or later.

<b>Programme Structure - 780 credit points</b>	
<b>Level 3 - 120 credit points</b>	
<b>Level 3 Core - 120 credit points</b>	<b>CORE</b>
[MODULE] 3401FNDSCI Skills and Perspectives in Science 1 Approved 2022.01 - 20 credit points	
[MODULE] 3403FNDSCI Wildlife Studies Approved 2022.03 - 20 credit points	
[MODULE] 3405FNDSCI Skills and Perspectives in Science 2 Approved 2022.01 - 20 credit points	
[MODULE] 3406FNDSCI Anatomy and Physiology Approved 2022.01 - 20 credit points	
[MODULE] 3407FNDSCI Understanding the Environment Approved 2022.02 - 20 credit points	
[MODULE] 3409FNDSCI Building Blocks of Life Approved 2022.02 - 20 credit points	
<b>Level 4 - 120 credit points</b>	
<b>Level 4 Core - 120 credit points</b>	<b>CORE</b>
[MODULE] 4201NATSCI Fundamentals of Scientific Research Approved 2022.01 - 20 credit points	
[MODULE] 4205NATSCI Practical Skills for Animal Behaviour Approved 2022.02 - 20 credit points	
[MODULE] 4207NATSCI Evolution and Inheritance Approved 2022.03 - 20 credit points	
[MODULE] 4208NATSCI Animal Behaviour Approved 2022.02 - 20 credit points	
[MODULE] 4209NATSCI Ecology Approved 2022.02 - 20 credit points	
[MODULE] 4210NATSCI Animal Physiology Approved 2022.01 - 20 credit points	
<b>Level 5 - 300 credit points</b>	
<b>Level 5 Core - 80 credit points</b>	<b>CORE</b>
[MODULE] 5201NATSCI Research Skills and Employability Approved 2022.03 - 20 credit points	
[MODULE] 5203NATSCI Behavioural Ecology Approved 2022.02 - 20 credit points	
[MODULE] 5217NATSCI Animal Communication Approved 2022.01 - 20 credit points	
[MODULE] 5218NATSCI Animals in Motion Approved 2022.02 - 20 credit points	
<b>Level 5 Optional - 40 credit points</b>	<b>OPTIONAL</b>
[MODULE] 5213NATSCI Animal Field Skills Approved 2022.02 - 20 credit points	
[MODULE] 5223NATSCI Companion Animal Behaviour Approved 2022.01 - 20 credit points	

<b>Optional Study Semester - 180 credit points</b>	OPTIONAL
<b>Placement Year - 120 credit points</b>	OPTIONAL
[MODULE] 5221NATSCI Sandwich Year - Animal Behaviour Approved 2022.01 - 120 credit points	
<b>OR Study Abroad - 180 credit points</b>	OPTIONAL
[MODULE] 5257NATSCI Study Semester Abroad - Animal Behaviour Approved 2022.01 - 60 credit points	
[MODULE] 5253NATSCI Study Year Abroad - Animal Behaviour Approved 2022.01 - 120 credit points	
<b>Level 6 - 240 credit points</b>	
<b>Level 6 Core - 60 credit points</b>	CORE
[MODULE] 6201NATSCI Research Project Approved 2022.01 - 40 credit points	
[MODULE] 6223NATSCI Current Topics in Animal Behaviour Approved 2022.01 - 20 credit points	
<b>Level 6 Optional - 180 credit points</b>	OPTIONAL
[MODULE] 6206NATSCI Advanced Field Skills Expedition Approved 2022.01 - 20 credit points	
[MODULE] 6208NATSCI Animal Learning and Cognition Approved 2022.02 - 20 credit points	
[MODULE] 6210NATSCI Zoo Conservation and Genebanks Approved 2022.02 - 20 credit points	
[MODULE] 6211NATSCI Neurobiology Approved 2022.02 - 20 credit points	
[MODULE] 6215NATSCI Animal Welfare Approved 2022.02 - 20 credit points	
[MODULE] 6216NATSCI Applied Animal Behaviour Approved 2022.01 - 20 credit points	
[MODULE] 6219NATSCI Current Topics in Primatology Approved 2022.02 - 20 credit points	
[MODULE] 6220NATSCI Animal Social Systems Approved 2022.02 - 20 credit points	
[MODULE] 6300NATSCI Work-Based Learning Approved 2022.01 - 20 credit points	

Module specifications may be accessed at <https://proformas.ljmu.ac.uk/Default.aspx>

## Teaching, Learning and Assessment

The acquisition of knowledge is promoted through formal taught sessions including lectures, structured workshops, laboratory practicals, computer sessions and fieldwork. Understanding is facilitated through seminars, tutorials, workshops, field projects, group work, interactive classroom activities and independent study. Knowledge and understanding is assessed via examination (multiple choice, short answer, essay and interpretative questions) and coursework such as laboratory and field reports, poster and seminar presentations, essays, data interpretation exercises, reflective practice and problem-based learning. Cognitive skills are developed in many interactive and hands-on sessions such as workshops, practicals, seminars, tutorials, IT workshops and directed independent learning, with an increasing emphasis as students progress from level 4 to level 6. Such skills are especially developed during laboratory/fieldwork, workshops and tutorials and during the Research Project / Work-based Learning modules. Essay / interpretative exam questions are used to assess students' ability for critical thinking. Coursework elements such as field / laboratory reports, problem-based learning exercises and, in particular, the Research Project or Work-based Learning report allow students to demonstrate the full range of their cognitive skills. Practical skills are taught during practical (laboratory/computer) classes and fieldwork, which form a component of the teaching on all modules. Core principles and minimum standards required for effective field and laboratory work are introduced at Level 4. Methods and specialist equipment for the collection and analysis of behavioural data from observational studies are introduced at level 4 and developed at level 5. Students develop these skills independently at level 6 in practical and field work sessions and when completing the Research Project or Work-based Learning placement. Practical skills are assessed directly in practical / fieldwork / computer workshop sessions and by submission of practical schedules or field /laboratory reports and online tests. The Research Project / Work-based Learning portfolio and other Level 6 reports allow students to demonstrate the full range of skills they have acquired. As well as having the opportunity to develop transferable skills in all academic modules, key skills are specifically taught in specially designed core modules at each level. These are as follows: Level 4 Fundamentals of Scientific Research; Level 5 Research Skills & Employability; Level 6 Research Project or Work-based Learning. Teaching in these modules includes delivery via small tutorial groups, seminars, computer sessions and workshops. Transferable skills are assessed through coursework (e.g. scientific writing, oral presentation, poster presentation and field reports) at all levels across modules and specifically in the core modules mentioned above.

## Opportunities for work related learning

Graduate Skills are taught and practised within a wide range of modules and assessed within the core modules at Level 4 Fundamentals of Scientific Research, Level 5 Research Skills & Employability and at Level 6 Research Project and/or Work-based Learning. Additional opportunity is provided through modules at Level 5 (Animal Field Skills) & Level 6 (International Expedition). Work-related learning opportunities are available through e.g. employer seminars, guest lectures / workshops, employer-driven assignments or contact during fieldwork. The Work-based Learning placement (135 hrs) and the Sandwich placement (12 months) offer the opportunity for students to gain work experience with a relevant, professional, animal based organisation. The School has a good record of providing relevant, vocational training for students. Students are supported by the Professional Training Tutor who is responsible for advertising placements and promoting vocational training to students. Appropriate Work-based Learning or Sandwich placements (home or abroad) include working with e.g. zoos, wildlife parks; animal welfare and rescue centres; RSPCA; police, behaviour consultants, animal assisted therapy centres, kennels / catteries / livery yards; conservation trusts.

## Entry Requirements

Type	Description
A levels	Applicants should have (or expect to obtain) at least two A2 Levels or equivalent, at least one of which should normally be in an appropriate science subject. Our minimum points tariff is 88 points. Our offers may be grade specific e.g. we usually expect at least 24 points in an appropriate science subject.

Alternative qualifications considered	Prior to starting the programme applicants must have obtained grade 4 or grade C or above in English Language and Mathematics GCSE or: • Key Skills Level 2 in English/ Maths • NVQ Level 2 Functional skills in Maths and English Writing and or Reading • Skills for Life Level 2 in Numeracy/English • Higher Diploma in Maths/ English • Functional skills level 2 in Maths/ English
BTECs	Applicants should be studying an appropriate Diploma and have (or expect to obtain) a pass with at least 3 merit grades at Level 3 in appropriate units.
Other international requirements	Applicants should have acquired passes in appropriate examinations in their country of origin and provide evidence of English language ability equivalent to 6.0 IELTS.
International Baccalaureate	Applicants must have (or expect to obtain) the full award including grade 4 in one appropriate science.