

PROGRAMME SPECIFICATION

Bachelor of Science with Honours (Fnd) in Animal Behaviour

Awarding institution	Liverpool John Moores University
Teaching institution	LJMU
UCAS Code	C302
JACS Code	C300
Programme Duration	Full-Time: 4 Years, Sandwich Thick: 5 Years
Language of Programme	All LJMU programmes are delivered and assessed in English
Subject benchmark statement	Biosciences (2015)
Programme accredited by	
Description of accreditation	
Validated target and alternative exit awards	<p>Bachelor of Science with Honours (Fnd) in Animal Behaviour</p> <p>Bachelor of Science with Honours (SW) (Fnd) in Animal Behaviour</p> <p>Diploma of Higher Education (Fnd) in Animal Behaviour</p> <p>Diploma in Higher Education (SW) (Fnd) in Animal Behaviour</p> <p>Certificate of Higher Education in Animal Behaviour</p>
Programme Leader	Ross Macleod

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.

Alternative Exit/ Interim Award Learning Outcomes - Certificate of Higher Education

A student who is eligible for this award will be able to:

Recall basic principles and theory of animal behaviour and its practical application.

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.

Alternative Exit/ Interim Award Learning Outcomes - Diploma of Higher Education (Fnd)

A student who is eligible for this award will be able to:

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.

Demonstrate knowledge of the key underlying concepts in the natural sciences

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.

Target award Learning Outcomes - Bachelor of Science with Honours (Fnd)

A student successfully completing the programme of study will have acquired the following subject knowledge and understanding as well as skills and other attributes.

A student who is eligible for this award will be able to:

1. demonstrate an understanding of the fundamental principles of genetics, ecology, physiology and neurobiology and their role in behavioural expression
2. explain the evolutionary origins of behaviour
3. discuss the adaptive function of behaviour including the concept of inclusive fitness and its significance in the survival and reproductive strategies shown by animals
4. explain the developmental processes of behavioural expression
5. create and apply studies in animal behaviour to husbandry, welfare and conservation
6. demonstrate knowledge of the key underlying concepts in the natural sciences
7. recognise and apply key theories, paradigms, concepts or principles in animal behaviour
8. analyse, synthesise and summarise information critically including published research or reports
9. apply knowledge and understanding to problem solving, and formulate and test hypotheses
10. recognise the implications of professional ethics and standards and apply them
11. design, plan, and collect primary (lab or field), or secondary, data using appropriate methodologies to address a specific question or problem
12. prepare, process, interpret and present data, using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and programmes for presenting data visually
13. undertake field and/or laboratory investigations with due regard for health and safety policies
14. demonstrate an understanding of and apply professional standards and ethical issues relating to animal welfare and behavioural research
15. demonstrate written communication using appropriate academic style and format with regard to academic integrity
16. understand and manipulate numerical data, apply appropriate statistical analyses, and problem solving
17. communicate effectively using a variety of methods including written, verbal and visual techniques and in formats appropriate to the audience
18. work in a team and demonstrate self-awareness and interpersonal skills
19. develop the skills necessary for independent lifelong learning (for example working independently, time management, organisational, enterprise and knowledge transfer skills)

Teaching, Learning and Assessment

The methods used to enable outcomes to be achieved and demonstrated are as follows:

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.

Programme structure - programme rules and modules

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.

Level 6	Potential Awards on completion	Bachelor of Science with Honours
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		(Fnd)
Core	Option	Award Requirements
6201NATSCI RESEARCH PROJECT (40 credits)	6206NATSCI INTERNATIONAL EXPEDITION (20 credits) 6208NATSCI ANIMAL LEARNING AND COGNITION (20 credits) 6210NATSCI ZOO CONSERVATION AND GENE BANKS (20 credits) 6211NATSCI NEUROBIOLOGY (20 credits) 6215NATSCI ANIMAL WELFARE (20 credits) 6216NATSCI ADVANCES IN ANIMAL BEHAVIOUR (20 credits) 6219NATSCI CURRENT TOPICS IN PRIMATOLOGY (20 credits) 6220NATSCI ANIMAL SOCIAL SYSTEMS (20 credits) 6300NATSCI WORK-BASED LEARNING (20 credits)	40 core credits at level 6 80 option credits at level 6
Level 5		Potential Awards on completion
Core	Option	Award Requirements
5201NATSCI RESEARCH SKILLS AND EMPLOYABILITY (20 credits) 5203NATSCI BEHAVIOURAL ECOLOGY (20 credits) 5216NATSCI BRAIN, HORMONES and BEHAVIOUR (20 credits) 5217NATSCI ANIMAL COMMUNICATION (20 credits) 5218NATSCI ANIMALS IN MOTION (20 credits)	5213NATSCI ANIMAL FIELD SKILLS (20 credits) 5223NATSCI COMPANION ANIMAL BEHAVIOUR (20 credits)	100 core credits at level 5 20 option credits at level 5
Level 4		Potential Awards on completion
Core	Option	Award Requirements
4201NATSCI FUNDAMENTALS OF SCIENTIFIC RESEARCH (20 credits) 4205NATSCI PRACTICAL SKILLS FOR ANIMAL BEHAVIOUR (20 credits) 4207NATSCI EVOLUTION AND INHERITANCE (20 credits) 4208NATSCI ANIMAL BEHAVIOUR (20 credits) 4209NATSCI ECOLOGY (20 credits) 4210NATSCI ANIMAL PHYSIOLOGY (20 credits)		120 core credits at level 4 0 option credits at level 4
Level 3		Potential Awards on completion
Core	Option	Award Requirements
3401FNDSCI SKILLS AND PERSPECTIVES IN SCIENCE 1 (20 credits) 3403FNDSCI WILDLIFE STUDIES (20 credits) 3405FNDSCI SKILLS AND PERSPECTIVES IN SCIENCE 2 (20 credits) 3406FNDSCI ANATOMY AND PHYSIOLOGY (20 credits) 3407FNDSCI UNDERSTANDING THE ENVIRONMENT (20 credits)		120 core credits at level 3 0 option credits at level 3

Information about assessment regulations

All programmes leading to LJMU awards operate within the University's Academic Framework.
<https://www.ljmu.ac.uk/about-us/public-information/academic-quality-and-regulations/academic-framework>

Opportunities for work-related learning (location and nature of activities)

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.

Criteria for admission

A/AS Level

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.

BTEC National Diploma

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.

AVCE

AVCE applicants should normally have (or expect to obtain) 88 points in an appropriate discipline (normally science).

Irish Leaving Certificate

Applicants must have passed (or expect to pass) their Irish Higher exams with at least 88 points from 3 subjects, 1 of which must be science (Psychology/Geography may be considered a science).

Scottish Higher

Applicants must have passed (or expect to pass) their exams with 88 points in 3 subjects, 2 of which must be sciences (Psychology/Geography may be considered a science).

International Baccalaureate

Applicants must have (or expect to obtain) the full award including grade 4 in one appropriate science.

Access

Access applicants should have (or expect to obtain) a pass in an appropriate QAA-approved Access course.

Other

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

Mature entry

We welcome applications from highly motivated mature applicants with relevant experience but without the

necessary formal qualifications. To qualify as a mature student you have to be at least 21 years of age by the 31st December of the year of entry.

Overseas qualifications

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.

External Quality Benchmarks

All programmes leading to LJMU awards have been designed and approved in accordance with the UK Quality Code for Higher Education, including the Framework for Higher Education Qualifications in the UK (FHEQ) and subject benchmark statements where applicable.

The University is subject to periodic review of its quality and standards by the Quality Assurance Agency (QAA) Published review reports are available on the QAA website at www.qaa.ac.uk

Programmes which are professionally accredited are reviewed by professional, statutory and regulatory bodies (PSRBs) and such programmes must meet the competencies/standards of those PSRBs.

Support for students and their learning

The University aims to provide students with access to appropriate and timely information, support and guidance to ensure that they are able to benefit fully from their time at LJMU. All students are assigned a Personal Tutor to provide academic support and when necessary signpost students to the appropriate University support services.

Students are able to access a range of professional services including:

- Advice on practical aspects of study and how to use these opportunities to support and enhance their personal and academic development. This includes support for placements and careers guidance.
- Student Advice and Wellbeing Services provide students with advice, support and information, particularly in the areas of: student funding and financial matters, disability, advice and support to international students, study support, accommodation, health, wellbeing and counselling.
- Students studying for an LJMU award at a partner organisation will have access to local support services

Methods for evaluating and improving the quality and standards of teaching and learning

Student Feedback and Evaluation

The University uses the results of student feedback from internal and external student surveys (such as module evaluations, the NSS and PTES), module evaluation questionnaires and meetings with student representatives to improve the quality of programmes.

Staff development

The quality of teaching is assured through staff review and staff development in learning, teaching and assessment.

Internal Review

All programmes are reviewed annually and periodically, informed by a range of data and feedback, to ensure quality and standards of programmes and to make improvements to programmes.

External Examining

External examiners are appointed to programmes to assess whether:

- the University is maintaining the threshold academic standards set for awards in accordance with the FHEQ and applicable subject benchmark statements
- the assessment process measures student achievement rigorously and fairly against the intended outcomes of the programme(s) and is conducted in line with University policies and regulations
- the academic standards are comparable with those in other UK higher education institutions of which external examiners have experience
- the achievement of students are comparable with those in other UK higher education institutions of which the external examiners have experience

and to provide informative comment and recommendations on:

- good practice and innovation relating to learning, teaching and assessment observed by external

examiners

- opportunities to enhance the quality of the learning opportunities provided to students

Please note:

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content, teaching, learning and assessment methods of each module can be found in module and programme guides.