The University Of Sheffield.

Programme Specification

A statement of the knowledge, understanding and skills that underpin a taught programme of study leading to an award from The University of Sheffield

Programme Details

1. Programme title	Biological Sciences
2. Programme code	APST17
3. QAA FHEQ level	7
4. Faculty	Science
5. Department	School of Biosciences
6. Other departments providing credit bearing modules for the programme	None
7. Accrediting Professional or Statutory Body	Not applicable
8. Date of production/revision	10th February 2022

Awards	Type of award	Duration
9. Final award	MSc	12 months
10. Intermediate awards	PGCert	9 months
	PGDip	9 months

Programme Codes

11. JACS code(s) *Select between one and three codes from the HESA website.*	C100	C200	C300
12. HECoS code(s) *Select between one and three codes from the HECoS vocabulary.*	100345	100355	100858

Programme Delivery

13. Mode of study	Full-time
14. Mode of delivery	Face to face

15. Background to the programme and subject area

Biological sciences are at the heart of many global challenges including food security, sustainable development, climate change and biodiversity management.

Our MSc Biological Sciences course provides training in the breadth and depth of whole-organism biology, allowing you to develop a wide range of knowledge across the discipline via our general biological sciences pathway, or to specialise within one of three major areas through dedicated pathways in: Plant and Crop Science, Biodiversity and Conservation, and Ornithology.

Our teaching and research expertise extends from cell, genes and biotechnology through to communities, ecosystems, conservation and climate change so whichever pathway you choose, you'll be learning about the latest research in the field from the experts who are making the discoveries first-hand.

16. Programme aims

MSc Biological Sciences aims to:	
A1	Provide an in-depth coverage of current theory, main methods, and key issues in whole-organism biological sciences.
A2	Equip students with the skills to critically analyse the role that the biological sciences play in 21st Century life.
A3	Provide training in the key skills required to plan and manage a scientific project, and develop students' abilities to independently research a topic in depth.
A4	Provide the opportunity, through distinct programme-level pathways, for students to develop their interests to an advanced level in one or more in major areas of biological sciences.

17. Programme learning outcomes

Knowledge and understanding

On successful completion of the programme, students will be able to demonstrate knowledge and understanding of:

		Links to Aim(s)
K1	One or more major themes in whole-organism biological science.	A1, A4
K2	The principles of robust scientific enquiry as applied to biological sciences.	A2, A3
K3	How subject-specific knowledge can be applied to new settings, context and challenges to make a positive difference in the world.	A2, A3

Skills and other attributes On successful completion of the programme, students will be able to:		
S1	Summarise and classify key topics in their chosen specialism.	A1, A4
S2	Critically interrogate contentious ideas in one or more areas of the biological sciences.	A1, A2
S3	Demonstrate creative and strategic approaches to problem solving in the biological sciences, both independently and through efficient group work.	A2, A3
S4	Apply critical and analytical skills, in particular design of experiments, data analysis and the use of statistics.	A2, A3
S5	Communicate complex or contentious ideas effectively, both in writing and orally, to peers, other specialist audiences, and the general public.	A2, A3, A4
S6	Identify questions or knowledge gaps in the field, and design, plan, conduct and report on a rigorous investigation to address these.	A3, A4

18. Learning and teaching methods

Learning objectives will be delivered through a range of teaching methods including lectures, seminars, tutorials and discussion groups, practical and field classes, and individual research. K1 and K2 are delivered primarily through lectures and discussions delivered mainly by School of Biosciences academic staff supplemented by external guest speakers. K3 and K4 are delivered primarily through seminars, tutorials and practical classes. Skills will be developed through hands-on practical classes and master-classes, group and individual projects. Delivery will build on the School of Biosciences' reputation for research-led teaching, and will be provided by a range of academic and teaching staff. Skills sessions in semester 1 will focus on key skills required for students to become self-directed learners, including for example sessions on critical reading of scientific literature and literature research skills. Links to key resources will be provided on the dedicated programme Blackboard area and within module-level Blackboard sites.

19. Assessment and feedback methods

Assessment is primarily via a variety of coursework, with specific exercises designed to develop and test different skills. Coursework includes various written exercises (essays, extended project reports, policy briefing notes, reflective journal entries, statistics exercises), as well as oral presentations, with an emphasis on effective communication to a range of specific audiences. Feedback on a selection of coursework will be available to students prior to final assessment. Depending on the module, this may involve individual or small group discussions, or annotation of written work.

Formative feedback is built into the constituent modules of this programme, and includes verbal feedback in group sessions, as well as structured and open-door dedicated feedback sessions in advance of coursework deadlines, providing students the opportunity to act on feedback prior to final submission of work. In addition there are opportunities to get detailed feedback on sections of major pieces of written work, in the form of verbal comments or written annotations. Tutorials and skills sessions will provide the opportunity for generic feedback to be offered, as well as allowing students to raise questions and request feedback in a small group setting. Feedback will be provided on all assessed work, primarily in the form of annotations and comments on written work. Electronic marking will be used as standard so that feedback is accessible via Blackboard. Links to relevant skills sessions provided either within the department or via other routes (e.g. 301, ELTC) will be provided as appropriate in support of specific feedback comments.

20. Programme structure and student development

This course is designed to offer students the flexibility to specialise in the area of organismal biological sciences that most interests them, within a broader-based biological sciences programme. This flexibility is provided via specific pathways related to core research and teaching strengths in APS: Plant and Crop Science, Biodiversity and Conservation, and Ornithology. The course offers a progression from learning fundamental concepts and core skills, through to applying these via an independent literature review and finally a significant independent research project.

All pathways share some core modules which deliver fundamental learning in the biosciences: a 15 credit Field Biology course at the beginning of semester 1 (which includes some generic content but also specific content directed to the different pathways); a 15 credit literature review which will allow them to develop their critical reading and writing skills, and to research a topic of interest to their specialism in depth; a 15 credit (semester 1 and 2) Advanced Scientific Skills module which will provide students with the more generic writing, communications, and project-based skills required for a career in biosciences; a 15 credit (semester 2) Advanced Data Handling and Analysis module which will give students the computational and analytical skills required for a range of scientific careers; and a 60 credit research project, enabling students to apply their knowledge, reflecting the learning and development of critical subject-specific critical and analytical skills over the course of the programme.

In addition, specialised modules are provided for each pathway, offering students advanced-level instruction in their chosen specialism in the form of a selection of 15 credit and 30 credit modules across semesters 1 and 2. Options include issues-based module focused on current research developments and their societal implications, as well as modules providing more traditional instruction in the fundamentals of the field. The delivery of individual specialised modules in a given year will be subject to minimum student numbers and availability of teaching staff.

Students preferring to follow a more general Biological Sciences pathway will take all of the core modules, and will be able to select from the specialised modules. Module choice is designed to ensure that students receive a grounding in core biological sciences principles in semester 1, with the opportunity to focus more on a particular area in semester 2.

Students achieving 60 credits from Field Biology, the specialised modules, the literature review and the skills modules will be eligible for a PGCert in Biological Sciences. Students achieving 120 credits from these modules will be eligible for a PGDip in Biological Sciences. Students who in addition successfully complete the Independent Research Project will be eligible for an MSc in Biological Sciences.

Detailed information about the structure of programmes, regulations concerning assessment and progression and descriptions of individual modules are published in the University Calendar available online at http://www.sheffield.ac.uk/calendar/.

21. Criteria for admission to the programme

Detailed information regarding admission to programmes is available from the University's On-Line Prospectus at http://www.shef.ac.uk/courses/.

22. Reference points

The learning outcomes have been developed to reflect the following points of reference:

Subject Benchmark Statements
https://www.qaa.ac.uk/quality-code/subject-benchmark-statements

Framework for Higher Education Qualifications (2014)
https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf

University Vision
https://www.sheffield.ac.uk/vision

Learning and Teaching Strategy (2016-21)
https://www.sheffield.ac.uk/polopoly_fs/1.661828!/file/FinalStrategy.pdf

23. Additional information

None

This specification represents a concise statement about the main features of the programme and should be considered alongside other sources of information provided by the teaching department(s) and the University. In addition to programme specific information, further information about studying at The University of Sheffield can be accessed via our Student Services web site at http://www.shef.ac.uk/ssid.