Programme Specification

This specification provides a 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 they take full advantage of the learning opportunities that are provided. As the content of the University's degree programmes is constantly being developed the information contained in this document is liable to change.

Programme Details

1. Programme title	Biomedical Science Biomedical Science with an Industrial Placement Year Biomedical Science with Foundation Year	
2. Final award (e.g. BA, MEng or MSc)	Type: BSc / MBioMedSci	Duration: 3 years (or 4 years with a foundation year or industrial placement year) / 4 years (or 5 years with an industrial placement year)
3. Intermediate/exit awards	Title (if different from main award):	
	Type: BSc (for MBioMedSci only)	Duration: 3 years
	Title (if different from main award):	
	Type: DipHE / CertHE	A student who is awarded 240 credits or more, with at least 120 credits at FHEQ Level 5 or above, will be eligible for the award of the Diploma of Higher Education. A student who does not meet the requirements for the Diploma of Higher Education and has been awarded 120 credits or more will be eligible for the award of Certificate of Higher Education.
4. Framework for Higher Education Qualifications level	FHEQ Level 6	
5. Faculty	Science	
6. School / Department	Biosciences	
7. Other schools/depts (providing credit bearing modules for the programme)	Medicine and Population Health Psychology	

8. Accrediting Professional or Statutory Body	Royal Society of Biology (application to be made in January 2025)		
9. Mode(s) of study	Full-time		
10. HECoS code(s) *Select between one and three codes from the HECoS vocabulary.*	100265		
11. Relevant Subject Benchmark Statements	QAA Subject Benchmark Statement for Biosciences QAA Subject Benchmark Statement for Biomedical Science and Biomedical Sciences		
Programme Code(s) (Internal use)	BISU05, BISU06, BISU07, BISU08, BISU09		

12. Programme aims

The programme aims to:	
A1	provide stimulating and enjoyable teaching that is informed by the research and scholarship of its staff.
A2	develop in students an independence of thought, intellectual curiosity and critical approach to evidence, theories and concepts.
A3	develop in students a broad understanding of the biological sciences together with a more detailed and critical understanding of selected areas in biomedical science.
A4	develop in students a range of programme-specific and transferable skills appropriate to employment both within and outside of biomedical science.
A5	assess students over a range of skills, enabling them to maximise their academic potential in all aspects of their programme.
	In addition, the MBioMedSci programme aims to:
A6	develop in students an understanding of the scientific process, including the ability to conduct independent research, critically evaluate scientific literature, and assess research proposals.

13. Programme learning outcomes

Knowledge and understanding (K) On successful completion of the programme, students will be able to demonstrate knowledge and understanding of:	
K1	a broad base of the core facts, concepts, and terminology across the biosciences together with a detailed and critical knowledge (including of the most recent advances) of selected areas relevant to biomedical science.
K2	the fundamental principles of biomedical science that underpin normal function and pathological conditions in human health and disease, including, but not limited to, human anatomy,

	physiology, neuroscience, development and their molecular and cellular mechanisms.
K3	how key biological processes, such as homeostasis, immunity, and pathogenesis, influence the emergence, progression, and treatment of diseases.
K4	the diversity of life on earth, including the major phyla and their evolutionary relationships, and how evolutionary concepts can inform diverse applications ranging from the conservation of biodiversity to medical research and public health.
K5	the nature of scientific knowledge and its development in the light of new evidence and ongoing research.
K6	how to design and conduct research studies to investigate biological questions by formulating hypotheses, selecting appropriate methodologies, and planning statistical analysis, whilst considering any ethical implications.
Skills and other attributes (S) *When considering the skills and attributes developed in this programme, please refer to the Sheffield Graduate attributes (SGAs). SGAs can be found here* On successful completion of the programme, students will be able to:	
S1	collaborate effectively in teams to solve societal problems and address research questions, demonstrating leadership and the ability to work with colleagues from diverse scientific backgrounds.
S2	formulate and investigate scientific questions by designing experiments, including appropriate controls and drawing on an understanding of research ethics.
S3	competently and safely use relevant laboratory, and computational techniques, demonstrating proficiency in observation, data collection, analysis, and interpretation, and keeping accurate experimental records.
S4	synthesise biological information, evaluate scientific data and critically assess research findings to understand current debates and advancements in the field.
S5	communicate biological concepts and research findings effectively to diverse audiences, utilising effective written, oral, and visual presentation skills to convey information clearly and persuasively.
S6	plan and manage their own work, including managing their own time and using a range of resources (including lectures, textbooks, websites and the scientific literature) appropriately.
S7	reflect on and articulate their own skills and interests and relate these to their career aspirations (including motivation for and interest in postgraduate study).

14. Learning and teaching methods *(this should include a summary of methods used throughout the programme, including any unique features)*

Biology students must acquire and critically understand a substantial body of knowledge. In-person lectures are the principal teaching method used in subject-based modules, though these are rarely entirely didactic and will include varying amounts of student interaction. Some material may also be delivered in a 'flipped' format where students engage with the material in advance of an active learning session. Students at all levels are expected to supplement each lecture with directed independent study, and our provision of lecture recordings assists them with this. In the later years, more emphasis is placed on student-centred learning approaches, such as seminar discussions about research articles that supplement more content-based lectures.

Alongside lectures, students will develop their academic and transferable skills through engagement with tutorials, group work, workshops, field trips and laboratory classes. During the first year of study, students participate in laboratory sessions that provide training in core basic competencies. The laboratory sessions develop students' knowledge of equipment and methods, as well as their skills in laboratory work, data analysis, experimental design, and the preparation of reports. Laboratory work is typically carried out in pairs or small groups. In addition, they receive online training in statistics and data skills. Where relevant to a student's modules, field courses are included, which place a strong emphasis on self-directed, autonomous use of acquired skills and the need to work efficiently in groups.

The level 3 capstone project, designed to meet RSB accreditation requirements, allows students to direct their learning under academic supervision. A wide range of projects is offered, reflecting diverse career options, including laboratory work supervised by an academic staff member within the School; analysis of complex data sets gathered from large-scale research projects; clinical diagnostics; development and delivery of science lessons in a local school; or creation and evaluation of a portfolio on a biological topic of ethical and political significance. All projects are centred around the scientific method and build on the literature-searching and writing skills introduced in the earlier years.

15. Assessment and feedback methods *(this should include the range of types of methods used)*

A programme-level approach is taken to design the assessment methods used such that students are assessed via a diverse set of methods across their three- or four-year programme. Assessment methods are also deliberately scaffolded such that students can reflect on their performance and build their competence from one year to the next.

In level 1 lecture modules, where there is an emphasis on building a core knowledge base, MCQ examinations make up a significant part of the assessment. These exams are designed to assess understanding rather than simply testing recall and are supplemented with a written exam component where students can further display their ability to interpret data, synthesise information, and explain concepts. Examination papers at Levels 2 and 3 test students' critical understanding by challenging them to evaluate their knowledge and synthesise answers that reflect the specific ways in which questions have been framed.

In addition to formal examinations, students are assessed via continuous assessment approaches suitable for the skills being assessed. For example, written laboratory reports assess students' ability to write scientifically, design experiments, and analyse, present, and interpret data. During lab classes, students are observed to ensure that they are technically proficient in a set of core competencies, and they are supported in developing these skills until proficiency is achieved. Additional tasks within the skills modules assess students' creativity, communication skills, and ability to work with others.

A comprehensive programme-level feedback strategy is embedded to ensure students receive regular, actionable feedback throughout their academic journey. Structured feedback mechanisms are integrated at key points in the programme, enabling students to apply insights from previous assessments to improve their performance in future tasks. This includes formative feedback opportunities within subject modules, such as self-assessment activities that encourage students to reflect critically on their work. In laboratory-based modules, immediate feedback is provided during practical sessions, offering students timely guidance to refine their techniques and skills.

Students undertaking group projects receive group and individual feedback, ensuring a balanced understanding of their performance. Capstone projects, which mark the programme's culmination, are accompanied by supervisor feedback at key project stages, such as the proposal, data collection, and analysis, allowing students to refine their approach as the project progresses.

These feedback strategies, combined with the scaffolded assessment design, support students in reflecting on their learning, developing their skills incrementally, and achieving success in both knowledge acquisition and practical application.

16. Programme structure, progression and assessment regulations

16a. Standard Programme Information (pre-populated for all programmes)

All programmes are expected to adhere to the University of Sheffield's General Regulations. Details of the University's General Regulations can be found here: http://www.sheffield.ac.uk/calendar/

Details of the programme structure and current modules can be found here:

https://www.sheffield.ac.uk/calendar/regs

Further information about studying at The University of Sheffield can be accessed via our web pages at:

https://www.sheffield.ac.uk/study

16b. Progression and assessment requirements *(this should capture information about e.g. progression hurdles, PSRB requirements, resit of component parts, module capping etc)*

If a student fails one of the Skills based modules at Level 1 or 2, they will be required to resit the failed components only. Where the student satisfies the Examiners in the re-sit examination, the grade for the unit will be determined as if a bare pass had been awarded in respect of the originally failed component(s). Students must pass the skills modules in order to progress to the next year of study.

Students who wish to progress to Level 4 (integrated masters' students only) must achieve a weighted mean grade of 59.5 or above at Level 2 and a grade of 64.5 or above in the Level 2 skills modules. Students who do not meet the academic requirements move to the BSc.

17. University scheme on optional Year Abroad or Placement Year

Schools should indicate here if students on this programme cannot apply for the University scheme(s) for an optional year abroad and / or placement year

Students on this programme are permitted to apply for the University's Year Abroad or Placement Year scheme.

Version Number:	Purpose / Change:	Date:
1	Major amendment	October 2024