UNIVERSITY OF LEICESTER

Programme Specification (Undergraduate) FOR ENTRY YEAR: 2026/27

Date created: 20/12/2022 **Last amended:** 27/02/2026 **Version no.** 1

1. Programme title(s) and code(s):

Biological Sciences BSc
Biological Sciences Dip HE*
Biological Sciences Cert HE*
Biological Sciences (Biochemistry) BSc
Biological Sciences (Biochemistry) Dip HE*
Biological Sciences (Biochemistry) Cert HE*
Biological Sciences (Genetics) BSc
Biological Sciences (Genetics) Dip HE*
Biological Sciences (Genetics) Cert HE*
Biological Sciences (Microbiology) BSc
Biological Sciences (Microbiology) Dip HE*
Biological Sciences (Microbiology) Cert HE*
Biological Sciences (Neuroscience) BSc
Biological Sciences (Neuroscience) Dip HE*
Biological Sciences (Neuroscience) Cert HE*
Biological Sciences (Physiology with Pharmacology) BSc
Biological Sciences (Physiology with Pharmacology) Dip HE*
Biological Sciences (Physiology with Pharmacology) Cert HE*
Biological Sciences (Zoology) BSc
Biological Sciences (Zoology) Dip HE*
Biological Sciences (Zoology) Cert HE*
Biosciences BSc*
Biosciences (Biochemistry) BSc*
Biosciences (Genetics) BSc*
Biosciences (Microbiology) BSc*
Biosciences (Neuroscience) BSc*
Biosciences (Physiology with Pharmacology) BSc*
Biosciences (Zoology) BSc*

With optional Year in Industry or Year Abroad (in Europe, USA or Japan)

a) HECOS Code

Programme	HECOS Code	%
Biological Sciences BSc	100345	100 %
Biological Sciences (Biochemistry) BSc	100344	67 %
	100345	33%
Biological Sciences (Genetics) BSc	100259	67%

b) UCAS Code (where required)

C100

C700

C400

C500

B140

B1B2

C300

2. Awarding body or institution:

University of Leicester

3. a) Mode of study

Full-time

b) Type of study

Campus-based

4. Registration periods:

The normal period of registration is three years (four years for degrees 'with a year in industry/abroad')

The maximum period of registration five years (six years for degree 'with a year in industry/abroad')

5. Typical entry requirements

A-levels: typical offer AAB/ABB, normally including at least two relevant science subjects from Biology (preferred), Chemistry, Physics or Maths.

EPQ with A-levels: typical offer BBB + EPQ at grade B. A-level subjects to include two relevant science subjects from Biology (preferred), Chemistry, Physics or Maths. General Studies not accepted.

GCSE: At least Grade C in both English Language and Maths (if not held at A-level)

Access to HE Diploma: Pass relevant diploma with 45 credits at level three, with distinctions in some subjects.

International Baccalaureate: Pass Diploma with 32/30 points, including at least two relevant science subjects at Grade 6 at higher level.

BTEC Nationals: Pass relevant Diploma with DDD plus five GCSEs at B or above including two relevant sciences.

6. Accreditation of Prior Learning

Direct 2nd year entry is considered subject to completion of a level 4 programme of comparable content to those studies in year 1 of this programme, passing all modules and with a year mark of at least 65%.

7. Programme aims

The programme aims to provide:

- a flexible teaching and learning programme of high quality that is informed by an active research environment in which students develop their own interests;

- a stimulating and supportive working environment;
- an education that will enable graduates to follow a variety of careers including higher degrees and research;

and to enable students to:

- have a broad appreciation of biological sciences or of biomedical and related disciplines with an emphasis on human health and disease, and advanced knowledge of one or more areas including appreciation of aspects of the underpinning research;
- develop a range of skills including practical and transferable skills;

In addition, for the 'with a Year abroad' variants

- The 'Year Abroad' variant of this programme is offered in accordance with the University's standard specification for the experiential year abroad variant.

In addition, for the 'with Industry' variants

- The 'Year in industry' variant of this programme is offered in accordance with the University's standard specification for year in industry programme variants.
- To provide experience of applications of professional and discipline-specific skills in Industry and to reinforce knowledge through its use in different environments.

8. Reference points used to inform the programme specification

- QAA Benchmarking Statement
- Framework for Higher Education Qualifications (FHEQ)
- UK Quality Code for Higher Education
- University Education Strategy
- University Assessment Strategy [login required]
- University of Leicester Periodic Developmental Review Report
- External Examiners' reports (annual)
- United Nations Education for Sustainable Development Goals
- Student Destinations Data
- Relevant information from learned societies

9. Programme Outcomes

Unless otherwise stated, programme outcomes apply to all awards specified in 1. Programme title(s).

a) Discipline specific knowledge and competencies

i) Mastery of an appropriate body of knowledge

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Demonstrate an awareness of main principles of biological sciences, biomedical sciences and related disciplines and explain core concepts of their chosen discipline. Describe current areas of advance in their chosen specialisation(s).	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination, coursework (e.g. practical reports, written reports, data analysis, field reports, oral presentations, group reports, video production, poster production, dissertation)

ii) Understanding and application of key concepts and techniques

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Describe and apply safely appropriate experimental procedures in biological sciences, biomedical sciences and related disciplines. Apply a scientific approach to the solution of problems in the context of their chosen specializations and appreciate the rationale of experimental design. Explain core concepts of their chosen discipline.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination and coursework

iii) Critical analysis of key issues

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Demonstrate a capacity for scientific analysis of issues in the context of biological sciences, biomedical sciences and related disciplines.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination and coursework

iv) Clear and concise presentation of material

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Communicate orally and in writing concepts and arguments in biological Sciences, biomedical sciences and related disciplines.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination and coursework

v) Critical appraisal of evidence with appropriate insight

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Demonstrate the capacity to analyse and criticise evidence from both experimental procedures and the literature.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination and coursework

vi) Other discipline specific competencies

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
In the year in industry/abroad programmes, demonstrate the capacity to work in an industrial or other research laboratory or study in another European, American or Japanese University.	Laboratory work, research project	Research report, practical reports

b) Transferable skills

i) Oral communication

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Communicate orally, with clarity and coherence, concepts and arguments in biological sciences, biomedical sciences and related disciplines.	Tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work.	Oral presentations, group reports, tutorials.

ii) Written communication

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Communicate in writing, with clarity and coherence, concepts and arguments in biological sciences, biomedical sciences and related disciplines.	Tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work.	Examination and coursework

iii) Information technology

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Demonstrate the effective use of IT for accessing databases and scientific literature; manipulating, processing and presenting data; presenting written assignments.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination and coursework

iv) Numeracy

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Understand and manipulate numerical data, solve problems using a variety of methods and apply numerical and statistical techniques to data analysis.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination and coursework

v) Team working

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Demonstrate the ability to work as part of a group	Tutorials, group work, research projects.	Group reports, use of class data to generate practical reports

vi) Problem solving

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Apply a scientific approach to the solution of problems in the context of their chosen specialisations and appreciate the rationale of experimental design.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination and coursework

vii) Information handling

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Demonstrate the capacity to access a variety of resource materials and to analyse evidence from both experimental procedures and the literature.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, and private study.	Examination and coursework

viii) Skills for lifelong learning

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Demonstrate the acquisition of the skills and attributes necessary for lifelong learning, including: intellectual independence, effective time management, the ability to work as part of a team, the use of IT and the capacity to access and utilise a variety of resource materials.	Lectures, tutorials, seminars, practical classes, computer classes, discussions, fieldwork (where appropriate), research projects, group work, directed reading, resource-based learning, private study, career development programme.	Examination, coursework, personal development planning.

Year Abroad
In addition, for the 'with a Year abroad' variants the additional programme outcomes apply

Year in Industry
In addition, for the Year in Industry' variants the additional programme outcomes apply

10. Progression points

This programme follows the standard Scheme of Progression set out in Senate Regulations – see the version of Senate Regulation 5 governing undergraduate programmes relevant to the year of entry.

The following dispensations from Senate Regulation 5 have been approved by the University:

The following modules on these programmes are not eligible for compensation and must be passed at the relevant pass mark (40% at Levels 4-6) for the degree to be awarded:

- BS3101 - Research Project A
- BS3102 - Research Project C
- BS3601 - Research Project B

In cases where a student has failed to meet a requirement to progress he or she will be required to withdraw from the course.

Year Abroad
For the Year Abroad variant (for experiential Year Abroad only) the additional progression points apply

Year in Industry
For the Year in Industry variant, the additional progression points apply

11. Criteria for award and classification

This programme follows the standard scheme of undergraduate award and classification set out in Senate Regulations – see the version of *Senate Regulation 5 governing undergraduate programmes* relevant to the year of entry – with the following approved exception:

To gain the Royal Society of Biology accredited degree of BSc Biological Sciences (with/without specialisms) students must pass the project modules (BS3101/BS3102, BS3601/BS3102) with a mark of 40.00% or higher. Students who meet all other progression and awarding regulations but fail to meet this accreditation requirement may be awarded a non-accredited degree in Biosciences with/without relevant specialism.

12. Special features

Students receive a broad education in biological sciences, biomedical sciences and related disciplines in the first year, along with training in key skills. As the course progresses into the second and third years the students have the flexibility to specialise progressively within the specified subject streams or to retain a broader perspective. Opportunities are available to take placements within related industries, or to study in other European, American or Japanese universities.

The School has a strong reputation for research and the range of staff expertise enables provision of research-led programmes that offer breadth and depth.

BS2030 and MB2020 are co-requisites for BS2033, and there is a cap of 20 on the BS2033 module, selected on a first come first served basis.

For the Year Abroad variant (for experiential Year Abroad only) the additional Special Features apply

For the Year in Industry variant. The University recognises that undertaking a work placement as part the programme of study can enhance career prospects and provide added value, and as such this programme includes a 'year in industry' variant.
By experiencing real-world scenarios and applying skills and knowledge to a professional environment, students can gain a unique insight into how their studies can be utilised in industry. This will not only showcase their abilities to future employers but will also enhance their studies upon returning to university to complete your programme.
To understand the special features for year in industry undergraduate programme variants, this programme specification should be read in conjunction with the programme specification content which can be found here. This outlines details including programme aims, support, progression and duration.

12a. Research-inspired Education

Students on this programme will advance through the four quadrants of the University of Leicester Research-inspired Education Framework as follows:

RiE Quadrant	Narrative
Research-briefed Bringing staff research content into the curriculum.	**Research-briefed**: Staff introduce their research interests to each student cohort, linking their research to relevant teaching topics. All lecture-based modules include information on research that underpins current knowledge. First-year modules feature "flagship" lectures from leading researchers, demonstrating how fundamental knowledge and skills are applied in cutting-edge research. In later years, specialised modules reflect staff research programmes. Practical classes, workshops, and authentic assessments are based on real-world research.
Research-based Framed enquiry for exploring existing knowledge.	**Research-based:** From Year one, students engage in laboratory and fieldwork, gaining insight into the scientific method, hypothesis testing and data handling. Experimental and research study design are formally taught and practiced in Year 2, through core *Research Skills* modules where students work in teams to devise and present original research proposals.
Research-oriented Students critique published research content and process.	**Research-oriented:** Familiarity with research publications is introduced in Year 1 tutorials and builds throughout our programmes, particularly in the Year 2 *Research Skills* modules. In year three, students critically evaluate published research through essays, articles, presentations and debates. The third-year project requires students to frame their research within the context of existing knowledge via a

Research-apprenticed Experiencing the research process and methods; building new knowledge.	literature review, emphasising the provisional and incomplete nature of scientific knowledge. **Research-apprenticed:** In the third-year capstone project, students build on their prior learning to create new knowledge. Experimental projects may involve laboratory, field or computer-based work, generating and analysing novel data. Analytical projects answer scientific questions through systematic literature reviews, meta-analyses, surveys, and/or new analysis of provided data.

As part of studying at a research-intensive university, students on this programme have the following extra or co-curricular opportunities available to them to gain exposure to research culture:

Students receive an annual Research Newsletter summarising recent research and linking to publications by staff who teach on the programme, highlighting their high-profile research and impact on society, the economy and healthcare. This is designed to encourage students to apply for a range of summer research internships, which may be funded by learned societies. Students are supported to identify and apply to internal and external research internships and summer research programmes by a dedicated member of our academic staff.

Teaching on this programme will be research-informed (it draws consciously on systematic inquiry into the teaching and learning process itself) in the following way:

The School of Biological Sciences supports all staff involved in teaching to gain a recognised Higher Education teaching qualification in which they demonstrate their use of teaching theory to support their own practice and reflect on their current teaching and continuing professional development. We also run a regular 'BioEd matters' seminar and workshop series in which internal and external speakers present pedagogical research, report back on teaching conferences and teaching innovations, and support best practice through reflection and evaluation.

12b. Work-related learning

The workload of all students on this programme includes the opportunity to engage with *at least* 100 hours of employer informed, work-related learning activity. Further information regarding work-related learning is available online.

13. Indications of programme quality

External examiner evaluations.

Oversight by Programme Team, School Education Committee and Education Quality, Enhancement and Development Team.

14. External Examiner(s) reports

The details of the External Examiner(s) for this programme and the most recent External Examiners' reports for this programme can be found at exampapers@Leicester [log-in required]

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Date created: 20/12/2022 **Last amended:** 27/02/2026 **Version no.** 1

Appendix 1: Programme structure (programme regulations)

The University regularly reviews its programmes and modules to ensure that they reflect the current status of the discipline and offer the best learning experience to students. On occasion, it may be necessary to alter particular aspects of a course or module.

Updates to the programme

Academic year affected	Module	Change
2028/29	Analytical Project	Was 30 credits, now 45
2028/29	Education Project	No longer offered

Please see Section B for option modules

All streams

Level 4/Year 1 2026/27

Credit breakdown

Status	**Year long**	**Semester 1**	**Semester 2**
Core	n/a	60 credits	60 credits
Optional	n/a	n/a	n/a

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS1030	The Molecules of Life – An Introduction to Biochemistry and Molecular Biology	30 credits
Sem 1	BS1040	The Cell – An Introduction to Microbiology and Cell Biology	30 credits
Sem 2	BS1050	From Individuals to Populations – An Introduction to Genetics	15 credits
Sem 2	BS1060	Multicellular Organisation – An Introduction to Physiology, Pharmacology and Neuroscience	30 credits
Sem 2	BS1070	Biodiversity and Behaviour – An Introduction to Zoology	15 credits

Level 6/Year 3 Research Project

All students take a Research Project worth 45 credits in their final year. The remaining 75 credits are made up of core/optional modules as detailed below.

Alternative A (Experimental project)

Delivery period	Code	Title	Credits
Semester 1	BS3101	Research Project A AND	15 credits
Year long	BS3102	Research Project C	30 credits

Alternative B (Analytical project)

Delivery period	Code	Title	Credits
Semester 1	BS3601	Research Project B AND	15 credits
Year long	BS3102	Research Project C	30 credits

Biological Sciences BSc

Level 5/Year 2 2027/28

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	15 credits	15 credits
Optional	n/a	45 credits	45 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS2200	Research Skills 1	15 credits
Sem 2	BS2000	Research Skills 2	15 credits

Level 6/Year 3 2028/29

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	30 credits	15 credits	n/a
Optional	n/a	30 credits	45 credits

120 credits in total

Biological Sciences (Biochemistry) BSc

Level 5/Year 2 2027/28

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	30 credits	45 credits
Optional	n/a	30 credits	15 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS2200	Research Skills 1	15 credits
Sem 1	BS2093	Protein Structure and Function	15 credits
Sem 2	BS2000	Research Skills 2	15 credits
Sem 2	BS2091	From Genes to Proteins	15 credits
Sem 2	BS2092	Molecular and Cell Biology	15 credits

Level 6/Year 3 2028/29

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	30 credits	45 credits	15 credits
Optional	n/a	n/a	30 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS3010	Gene Expression: Molecular Basis and Medical Relevance	15 credits
Sem 1	BS3070	Structural Biology	15 credits
Sem 2	BS3003	Cancer Cell and Molecular Biology	15 credits

Biological Sciences (Genetics) BSc

Level 5/Year 2 2027/28

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	30 credits	45 credits
Optional	n/a	30 credits	15 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS2200	Research Skills 1	15 credits
Sem 1	BS2009	Genomes	15 credits
Sem 2	BS2000	Research Skills 2	15 credits
Sem 2	BS2026	Genes, Development and Inheritance	15 credits
Sem 2	BS2040	Bioinformatics	15 credits

Level 6/Year 3 2028/29

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	30 credits	45 credits	n/a
Optional	n/a	n/a	45 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS3000	Evolutionary Genetics	15 credits
Sem 1	BS3031	Human Genetics	15 credits

Biological Sciences (Microbiology) BSc

Level 5/Year 2 2027/28

Credit breakdown

Status	**Year long**	**Semester 1**	**Semester 2**
Core	n/a	45 credits	30 credits
Optional	n/a	15 credits	30 credits

120 credits in total

Core modules

Delivery period	**Code**	**Title**	**Credits**
Sem 1	BS2200	Research Skills 1	15 credits
Sem 1	BS2030	Principles of Microbiology	15 credits
Sem 1	MB2020	Medical Microbiology	15 credits
Sem 2	BS2000	Research Skills 2	15 credits
Sem 2	BS2032 or BS2033	Immunology and Eukaryotic Microbiology/ Immunology and Eukaryotic Microbiology (with Science Enterprise Trip)	15 credits

Level 6/Year 3 2028/29

Credit breakdown

Status	**Year long**	**Semester 1**	**Semester 2**
Core	30 credits	15 credits	n/a
Optional	n/a	30 credits	45 credits

120 credits in total

Biological Sciences (Neuroscience) BSc

Level 5/Year 2 2027/28

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	45 credits	30 credits
Optional	n/a	15 credits	30 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS2200	Research Skills 1	15 credits
Sem 1	BS2015	Physiology of Excitable Cells	15 credits
Sem 1	BS2013	Physiology and Pharmacology	15 credits
Sem 2	BS2000	Research Skills 2	15 credits
Sem 2	BS2066	Behavioural Neurobiology	15 credits

Level 6/Year 3 2028/29

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	30 credits	30 credits	30 credits
Optional	n/a	15 credits	15 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS3055	Molecular and Cellular Neuroscience	15 credits
Sem 2	BS3016	Neuroscience Futures	15 credits
Sem 2	BS3033	Physiology, Pharmacology and Behaviour	15 credits

Biological Sciences (Physiology with Pharmacology) BSc

Level 5/Year 2 2027/28

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	45 credits	30 credits
Optional	n/a	15 credits	30 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS2200	Research Skills 1	15 credits
Sem 1	BS2013	Physiology and Pharmacology	15 credits
Sem 1	BS2015	Physiology of Excitable Cells	15 credits
Sem 2	BS2000	Research Skills 2	15 credits
Sem 2	BS2014	Exercise Physiology and Pharmacology	15 credits

Level 6/Year 3 2028/29

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	30 credits	30 credits	15 credits
Optional	n/a	15 credits	30 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS3054	Molecular and Cellular Pharmacology	15 credits
Sem 2	BS3056	Cellular Physiology of the Cardiovascular System	15 credits

Biological Sciences (Zoology) BSc

Level 5/Year 2 2027/28

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	30 credits	45 credits
Optional	n/a	30 credits	15 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	BS2200	Research Skills 1	15 credits
Sem 1	BS2059	Global Change Biology and Conservation	15 credits
Sem 2	BS2000	Research Skills 2	15 credits
Sem 2	BS2026	Genes, Development and Inheritance	15 credits
Sem 2	BS2077	Neurobiology and Animal Behaviour	15 credits

Level 6/Year 3 2028/29

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	30 credits	15 credits	15 credits
Optional	n/a	30 credits	30 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 2	BS3073	Conservation and Ecological Genetics	15 credits

Section B

Option Modules – Year 2

All Programmes

Please see the table below for available options in the second year of your programme. N.B. Options are subject to timetabling constraints. All modules are 15 credits.

Key

C100 = Biological Sciences BSc

C700 = Biological Sciences (Biochemistry) BSc

C400 = Biological Sciences (Genetics) BSc

C500 = Biological Sciences (Microbiology) BSc

B140 = Biological Sciences (Neuroscience) BSc

B1B2 = Biological Sciences (Physiology with Pharmacology) BSc

C300 = Biological Sciences (Zoology) BSc

Delivery period	Code	Module title	C100	C700	C400	C500	B140	B1B2	C300
Semester 1	BS2009	Genomes	*	*		*	*	*	*
Semester 1	BS2013	Physiology and Pharmacology	*	*	*	*			*
Semester 1	BS2015	Physiology of Excitable Cells	*	*	*	*			*
Semester 1	BS2030	Principles of Microbiology	*	*	*		*	*	*
Semester 1	BS2059	Global Change Biology and Conservation	*	*	*	*	*	*	
Semester 1	BS2093	Protein Structure and Function	*		*	*	*	*	*
Semester 1	BS2094	Introduction to Python programming for Bioscientists	*	*	*	*	*	*	*
Semester 1	MB2020	Medical Microbiology	*	*	*		*	*	*
Semester 2	BS2004	Contemporary Techniques in Biological Data Analysis	*	*	*	*	*	*	*

Delivery period	Code	Module title	C100	C700	C400	C500	B140	B1B2	C300
Semester 1	BS2092	Molecular and Cell Biology	*		*	*	*	*	*
Semester 2	BS2014	Exercise Physiology and Pharmacology	*	*	*	*	*		*
Semester 2	BS2026	Genes, Development and Inheritance	*	*		*	*	*	
Semester 2	BS2032	Immunology and Eukaryotic Microbiology	*	*	*		*	*	*
Semester 2	BS2033	Immunology and Eukaryotic Microbiology (with Science Enterprise Trip)	*	*	*		*	*	*
Semester 2	BS2040	Bioinformatics	*	*		*	*	*	*
Semester 2	BS2066	Behavioural Neurobiology	*	*	*	*		*	
Semester 2	BS2077	Neurobiology and Animal Behaviour	*	*	*	*		*	
Semester 2	BS2078	A Field Guide to Evolution	*	*	*	*	*	*	*
Semester 2	BS2091	From Genes to Proteins	*		*	*	*	*	*

Notes

This is an indicative list of option modules and not definitive of what will be available. Option module choice is also subject to availability, timetabling, student number restrictions and, where appropriate, students having taken appropriate pre-requisite modules.

Option Modules – Year 3/Final Year

All Programmes

Please see the table below for available options in the third year of your programme. N.B. Options are subject to timetabling constraints. All modules are 15 credits.

Key

C100 = Biological Sciences BSc

C700 = Biological Sciences (Biochemistry) BSc

C400 = Biological Sciences (Genetics) BSc

C500 = Biological Sciences (Microbiology) BSc

B140 = Biological Sciences (Neuroscience) BSc

B1B2 = Biological Sciences (Physiology with Pharmacology) BSc

C300 = Biological Sciences (Zoology) BSc

Delivery period	Code	Module title	C100	C700	C400	C500	B140	B1B2	C300
Semester 1	BS3000	Evolutionary Genetics	*			*		*	*
Semester 1	BS3010	Gene Expression: Molecular Basis and Medical Relevance	*			*		*	*
Semester 1	BS3015	Molecular and Cellular Immunology	*			*~		*	*
Semester 1	BS3031	Human Genetics	*			*		*	*
Semester 1	BS3038	Biodiversity in Practice	*			*		*	*^
Semester 1	BS3054	Molecular and Cellular Pharmacology	*			*	*+		*
Semester 1	BS3055	Molecular and Cellular Neuroscience	*			*		*°	*
Semester 1	BS3064	Comparative Neurobiology	*			*	*+	*	*^
Semester 1	BS3068	Microbial Biotechnology	*			*~		*	*
Semester 1	BS3070	Structural Biology	*			*~		*	*

Delivery period	Code	Module title	C100	C700	C400	C500	B140	B1B2	C300
Semester 1	NT3100	Sustainability Enterprise Partnership Project	*			*		*	*
Semester 2	BS3003	Cancer Cell and Molecular Biology	*		*	*	*	*	*
Semester 2	BS3011	Microbial Pathogenesis and Genomics	*	*	*^	*~	*	*	*
Semester 2	BS3013	Human and Environmental Microbiology	*	*	*	*~	*	*	*
Semester 2	BS3016	Neuroscience Futures	*	*	*	*		*	*
Semester 2	BS3033	Physiology, Pharmacology and Behaviour	*	*	*	*		*°	*
Semester 2	BS3056	Cellular Physiology of the Cardiovascular System	*	*	*	*	*		*
Semester 2	BS3069	Introduction to Astrobiology and the Origin of Life	*	*	*	*	*	*	*
Semester 2	BS3073	Conservation and Ecological Genetics	*	*	*^	*	*	*	
Semester 2	BS3080	Behavioural Ecology	*	*	*	*	*	*	*
Semester 2	NT3200	Sustainability Enterprise Partnership Project	*	*	*	*	*	*	*
Semester 2	MB3057	Current and Future Therapeutics					*	*°	

^ students must choose at least one of the indicated modules

~ students must choose three or four of the indicated modules

+ students must choose one of the indicated modules

° students must choose two or three of the indicated modules

Notes

This is an indicative list of option modules and not definitive of what will be available. Option module choice is also subject to availability, timetabling, student number restrictions and, where appropriate, students having taken appropriate pre-requisite modules.

Appendix 2: Module specifications

See undergraduate module specification database [log-in required] (Note - modules are organized by year of delivery).

UNIVERSITY OF LEICESTER

Programme Specification (Undergraduate) FOR ENTRY YEAR: 2026/27

Date created: 20/12/2022 **Last amended:** 27/02/2026 **Version no.** 1

Appendix 3: Module mapping matrix

Research-inspired Education: Module Mapping Matrix

Please refer to the Research-inspired Education guidance document when completing the sections below. ***This is an internally-facing document which will not be shared directly with prospective or future students.***

Sub-section i: Articulation of research-inspired components within taught modules.

RiE Quadrant	Module code and name	Core[1]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
Research-briefed Bringing staff research content into the curriculum.			
	BS1030 The Molecules of Life BS1040 The Cell	Core all programmes	"Flagship" lectures from leading researchers, demonstrate how fundamental knowledge and skills are applied in cutting-edge research
	BS1030 The Molecules of Life	Core all programmes	As a first assessment (Scientific Summary) students interview staff members to explore their research. Students are required to find and cite at least one primary research article authored by the staff member/s.
	BS1050 From Individuals to Populations - An Introduction to Genetics	Core all programmes	In BS1050 design of practical and associated assessment are based on research on circadian rhythms, undertaken in the Department of Genetics, Genomics and Cancer Sciences. This is an example. The use of UoL or other research to inform the design of practicals, workshops and tutorials is common in several modules)
	BS3070 Structural Biology	Core Biosciences (Biochemistry)	Lecture topics are illustrated with reference to research conducted by staff of the Leicester Institute of Structural and Chemical Biology (LISCB)

[1] If it is not in a core module, this should be embedded in equivalent optional modules that all deliver this aspect of the framework (to ensure all students experience this element of the framework).

RiE Quadrant	Module code and name	Core[2]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
Research-based Framed enquiry for exploring existing knowledge.	BS2200 Research Skills 1	Core all programmes	Students research and write a magazine article showing how biological research is helping to address barriers to achieving UN Sustainable Development Goals.
	BS2000 Research Skills 2	Core all programmes	Students work in a group to develop and write a research grant proposal.
	BS2092 Molecular & Cell Biology	Core Biosciences (Biochemistry)	In tutorials, students gain experience of designing experiments and analysing data relating to lecture topics. (This is an example. Data analysis and experimental design are activities in workshops and tutorials in several modules)
	BS3011 Microbial Pathogenesis & Genomics	Core option Biosciences (Microbiology)	Students design and write a research plan to answer a research question about a (made-up) new discovery on bacterial virulence –this involves formulating a hypothesis, choosing method, designing experiment, considering ethics.
	BS3054 Molecular & Cellular Pharmacology	Core Biosciences (Physiology with Pharmacology)	Students apply pharmacological principles to analyse and identify potential 'druggable' targets relevant to specific diseases, and to understand drug discovery strategies that might be pursued to develop new drugs. They also use appropriate computer software accurately to analyse pharmacological datasets.
	BS3056 Cellular Physiology of the Cardiovascular System	Core Biosciences (Physiology with Pharmacology)	Students write an essay based around experimental data generated within a practical class.
	BS3073 Conservation & Ecological Genetics	Core Biosciences (Zoology)	Students prepare coursework based upon analysis of a genetic data set that they have been provided with. They compare this to published papers and write a report in the style of a journal article.

[2] If it is not in a core module, this should be embedded in equivalent optional modules that all deliver this aspect of the framework (to ensure all students experience this element of the framework).

RiE Quadrant	Module code and name	Core[3]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
Research-oriented Students critique published research content and process.	BS2000 Research Skills 2	Core all programmes	Students work in a group to develop and write a research grant proposal. This involves researching and critiquing published research content and process, to provide background information for the proposal introduction and information on suitable research processes.
	BS3010 Gene Expression: Molecular Basis and Medical Relevance	Core Biosciences (Biochemistry)	Pairs of students are given papers that reached contradictory conclusions regarding current issues in the field. Each pair uses the data in the papers and relevant additional published research to present the case for their point of view and against the other one.
	BS3003 Cancer Cell and Molecular Biology	Core Biosciences (Biochemistry)	Students conduct a literature research project and write a critical appraisal of the subject, summarising the most important facts.
	BS3070 Structural Biology	Core Biosciences (Biochemistry)	Assessment includes a literature comprehension exercise where students quantitatively and qualitatively evaluate research literature where structural biology techniques have been used.
	BS3000 Evolutionary Genetics	Core Biosciences (Genetics)	Students produce a graphical abstract (formative) and an essay (summative), based on critical evaluation of a recent research publication.
	BS3031 Human Genetics	Core Biosciences (Genetics)	Students critically assess research papers in the field of human genetics to extract essential information, which they incorporate into essays in the final examination.
	BS3015 Molecular & Cellular Immunology	Core option Biosciences (Microbiology)	Students write a 'News and Views' article, in which they present relevant research paper/s succinctly, in a style suitable for a broad (non-specialist) audience.
	BS3011	Core option Biosciences	Tutorials lead to an assessment in which students evaluate a research paper, answering questions about methodological approach, experimental design, interpretation of data

[3] If it is not in a core module, this should be embedded in equivalent optional modules that all deliver this aspect of the framework (to ensure all students experience this element of the framework).

RiE Quadrant	Module code and name	Core[3]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
	Microbial Pathogenesis & Genomics	(Microbiology)	and conclusions in the context of the wider field (i.e. their lectures)
	BS3013 Human & Environmental Microbiology	Core option Biosciences (Microbiology)	Includes a weekly journal seminar discussing and critiquing a microbiome research article in preparation for the assessment, which is to discuss/critique an unseen research paper.
	BS3055 Molecular & Cellular Neuroscience	Core Biosciences (Neuroscience)	Students present a recent research paper related to aspects of the taught material in the format of a 'news & views' article. This requires placing the study in context, explaining significant outcomes, suggesting further direction, and critiquing as appropriate.
	BS3016 Neuroscience Futures	Core Biosciences (Neuroscience)	The module runs as a series of "topics" in which we present and critique recent papers in the neuroscience literature. The students then write a journal club introduction, i.e. they read five papers that we pre-select, and write an overview of them
	BS3033 Physiology, Pharmacology & Behaviour	Core Biosciences (Neuroscience)	Students write an essay in which they critically analyse a theory of some aspects of brain function based on the use of recent research reports.
	BS3054 Molecular & Cellular Pharmacology	Core Biological Sciences (Physiology with Pharmacology). Core option Biological Sciences (Neuroscience) Option Biological Sciences	Each taught topic is supported by Reading Lists, which include key reviews and original research articles. Students use these to apply pharmacological principles to analyse and identify potential 'druggable' targets relevant to specific diseases and to understand drug discovery strategies that might be pursued to develop new drugs.
	BS3056 Cellular Physiology of the	Core Biosciences (Physiolog	Students critique scientific information from a range of sources including published research content and process.

RiE Quadrant	Module code and name	Core[3]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
	Cardiovascular System	y with Pharmacology)	
	BS3064 Comparative Neurobiology	Core option Biological Sciences (Neuroscience) and Biological Sciences (Zoology) Option Biological Sciences	Students prepare for tutorials by searching for and reading relevant research literature, and writing essay outlines based on this
	BS3068 Microbial Biotechnology	Core option Biological Sciences (Microbiology) Option Biological Sciences	Students review current review papers and present findings in the form of a poster.
	BS3073 Conservation & Ecological Genetics	Core Biosciences (Zoology)	Students prepare coursework based upon analysis of a genetic data set that they have been provided with. They compare this to published papers and write a report in the style of a journal article.
	MB3057 Current and Future Therapeutics	Core option BSc Biological Sciences (Physiology with Pharmacology) Option BSc Biological Sciences (Neuroscience)	Students appraise current research aims, models and methods designed to facilitate the understanding, diagnosis or treatment of disease, and present their findings in a written report.

RiE Quadrant	Module code and name	Core[4]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
Research-apprenticed Experiencing the research process and methods; building new knowledge.	BS2059 Global Change Biology & Conservation	Core Biosciences (Zoology)	Students design and gather citizen science data on local conservation activities and write a professional report, the best of which is sent back to the partner organisations, who use this data to inform their management practices
	BS3102 - Research Project C	Core	Capstone projects involve laboratory, field or computer-based work. In experimental and bioinformatic projects, students generate and analyse novel data. In analytical projects, students answer scientific questions through systematic literature reviews, meta-analyses, surveys, and/or new analysis of provided data
	BS3101 Research Project A BS601 Research Project B	All students must take BS3101 or BS3601	These modules constitute the continuation of experimental/bioinformatic projects, and analytical projects respectively

Sub-section ii: Articulation of plans / intentions for development of Research-Inspired Education beyond the existing provision. *Please capture any future ideas that are not already happening in the box below. This is an optional section and will not be subject to review.*

Expand the GGS research newsletter to be school wide.

Open up selected departmental seminars to undergraduates.

Encourage students to attend professorial inaugural lectures.

[4] If it is not in a core module, this should be embedded in equivalent optional modules that all deliver this aspect of the framework (to ensure all students experience this element of the framework).