Course Information Document: Undergraduate

For Academic Year 2025/26

1. Course Summary

Names of programme and award title(s)	BSc (Hons) Medical Sciences
Award type	Single Honours
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 6
Normal length of the programme	1 year
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	n/a
Regulator	Office for Students (OfS)
Tuition Fees	**UK students:** Fee for 2025/26 is £9,535* **International students:** Fee for 2025/26 is £17,700**

How this information might change: *Please read the important information at http://www.keele.ac.uk/student-agreement/. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.*

* *These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

** *These fees are for new students. We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

2. Overview of the Programme

BSc Medical Sciences is a Level 6 programme designed for home and international students who have completed a HND or FdSc, or equivalent qualification, in the biosciences and provides a progression route to a full BSc degree. Focusing specifically on medical sciences, you will explore the key pathology disciplines of haematology, clinical biochemistry and medical immunology, as well as more specialist areas of clinical pathology including reproductive science and toxicology. Optional modules will allow you to focus on wider areas of the biosciences, such as exploring the interactions of microorganisms with their host and the control and treatment of infectious diseases, or the molecular changes associated with the development of cancer and how such an understanding is contributing to the development of novel therapies. Through conducting an authentic research project, you will further develop subject specific knowledge and advanced skills in designing and conducting hypothesis-driven

investigations, evaluating outcomes, and critically analysing current literature in the field. Alongside the core academic programme, additional workshops will support you in developing key academic and employability skills aligned with taught module assessment and your research project. This will also support you in reflecting on your professional skills and attributes and overall career readiness, supporting your transition to graduate-level employment in the biosciences and beyond, or in pursuing further postgraduate study.

Distinctive features of the course include:

- A contemporary curriculum, with a focus on biomedical science and its applications in diagnosing, treating, and monitoring diseases.
- Innovative and relevant assessments, designed to foster creativity and develop a diverse range of key employability skills and attributes;
- A wide range of research project choices developing key skills in hypothesis-driven study design, data collection and analysis;
- A comprehensive programme of academic and professional development workshops supporting you in acquiring and reflecting on key employability skills aligned with your career goals;
- Our Undergraduate Student Research Conference, where you will present the outcomes of your research project in the context of a realistic research conference experience;
- The opportunity to undertake a short integrated placement alongside your studies, further developing key employability skills.

3. Aims of the programme

The broad aims of the programme are to enable you to:

- provide you with core knowledge, understanding, and skills relevant to medical science;
- produce skilled and motivated graduates who are suitably prepared for further study or for employment within or outside their field;
- foster a strong interest in the biosciences, particularly at the cellular and molecular levels, within a supportive and intellectually stimulating environment;
- develop your understanding of the analytical, clinical, and diagnostic aspects of Cellular Pathology, Clinical Biochemistry, Medical Immunology, and Haematology pathology laboratories and how these support the diagnosis, treatment and monitoring of disease;
- develop a range of key skills valuable in areas where numeracy and a scientific approach to problem-solving are essential through engaging in diverse learning activities and assessments to fully develop employability and academic skills, ensuring both professional and academic success;
- promote the development of independent research skills to enable you to undertake relevant postgraduate study and wider employment;
- cultivate critical thinking, autonomous learning, independent research, and communication skills, preparing for the postgraduate studies and lifelong professional development.

4. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to demonstrate knowledge and understanding of:

- the analytical, clinical, and diagnostic roles of Cellular Pathology, Clinical Biochemistry, Medical Immunology, and Haematology pathology laboratories.
- specialist areas of medical sciences, including reproductive science and toxicology.
- the relationships between research, clinical practice and point of care testing.
- some of the major global health issues affecting society and approaches to the control and treatment of disease, including public health promotion and interventions.
- the molecular cell biology of disease development and progression, and novel and emerging therapies, in select areas of the biosciences.
- the importance of interdisciplinarity in problem solving and patient pathways.
- experimental methods for the investigation of relevant areas of bioscience, including the scientific method, hypothesis-driven investigation and the critical nature of evidence and scientific debate.

Subject specific skills

Successful students will be able to:

- acquire, analyse, synthesise, summarise, present, and communicate information and ideas from a wide range of sources.
- evaluate scientific literature with a full and critical understanding, while addressing such questions as content, context, aims, objectives, quality of information, and its interpretation and application.
- apply biomedical understanding to familiar and unfamiliar problems.
- design, conduct, analyse, report and evaluate biochemical experiments, acknowledging an awareness of the validity, accuracy, calibration, precision and reproducibility of results.
- work safely and responsibly in the laboratory and/or through desk-based systematic literature analysis, with awareness of standard procedures such as risk assessment, COSHH, and relevant health and safety regulations, as appropriate to the research project.
- recognise philosophical and ethical issues relevant to the subject.
- report on the outcomes of research and other scholarly activity in an appropriate academic style using and referencing relevant ideas and evidence, with an awareness of the importance of academic and research integrity.

Key or transferable skills (including employability skills)

Successful students will be able to:

- develop and sustain effective approaches to learning and study, including time management, flexibility, creativity and intellectual integrity.
- acquire, analyse, synthesise, summarise and present information and ideas from a wide range of sources: textual, numerical, verbal and graphical.
- make critical interpretations, evaluations and judgements of data using appropriate qualitative and quantitative techniques.
- use a range of digital resources effectively and critically as a means of communication and a source of information.
- communicate effectively to a variety of audiences by written, spoken and graphical means using appropriate techniques and scientific language.
- work with others to identify and achieve collaborative goals and responsibilities and perform in a respectful manner that is accepting of the viewpoints and opinions of others.
- develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills.
- cite and reference work in an appropriate manner, ensuring academic integrity.
- motivate themselves and sustain that motivation over an extended period of time.
- identify and work towards targets for personal, academic and career development.

Keele Graduate Attributes

The Keele Graduate Attributes are the qualities (skills, values and mindsets) which you will have the opportunity to develop during your time at Keele through both the formal curriculum and also through co- and extra-curricular activities (e.g., work experience, and engagement with the wider University community such as acting as ambassadors, volunteering, peer mentoring, student representation, membership and leadership of clubs and societies). Our Graduate Attributes consist of four themes: **academic expertise, professional skills, personal effectiveness, and social and ethical responsibility.** You will have opportunities to engage actively with the range of attributes throughout your time at Keele: through your academic studies, through self-assessing your own strengths, weaknesses, and development needs, and by setting personal development goals. You will have opportunities to discuss your progress in developing graduate attributes with, for example, Academic Mentors, to prepare for your future career and lives beyond Keele.

5. How is the programme taught?

Diversity, flexibility and inclusivity is at the heart of our Education Strategy. Your Student Voice helps us to shape what we do and we include students, local employers and professional bodies in our decision-making process. Learning and teaching methods used on the programme vary according to the subject matter and level of the module.

The delivery of our programme will include the following types of activities:

- **Digital resources**: These include provision of short videos and directed reading, aligned with key learning outcomes and supporting campus-based lectures, tutorials and workshops focused on active learning through application of content as part of a 'flipped classroom' approach to delivery. This also gives you more flexibility to decide how, when and where to study, with the opportunity to submit questions based on the material anonymously in advance of taught sessions.
- **Campus-based tutorials and workshops**. Designed to promote active learning through application and discussion of core knowledge, building on pre-session digital resources. Tutorials and workshops help

promote social learning, develop a sense of community and give you an opportunity to deepen your understanding of core issues, ask questions, reflect on your own learning, and discuss content with other students and your tutors. Other workshops will also support data analysis and report writing, developing wider academic skills including IT literacy.

- **Case-based learning (CBL) tutorials**. Students are expected to play a full part and, often, to lead these discussions. In particular, case-based learning (CBL) is a student-centred style, based on case studies that help you contextualise content taught across other modules. You will also develop key employability skills such as leadership, communication and evidence-based problem solving.
- **Live, online tutorials, workshops and drop-in sessions**. These additional sessions to the core academic programme cover topics common to all students in the Life Sciences such as developing skills in effective note taking, literature analysis and science communication, and support development of employability skills through reflection on guest sessions delivered by alumni and invited speakers from industry and wider careers.
- **Independent study**. Based on directed reading from textbooks, research papers and other media to support your learning of the core material and deepen your understanding of the subject.
- Your **Research Project** gives you the opportunity to undertake a piece of independent experimental research supervised and supported by a member of staff in a selected area of contemporary bioscience research aligned with your interests. For those choosing to undertake a lab-based research project, this will be held in one of our research laboratories. Some additional **Laboratory classes** during your course will also be delivered in our state-of-the-art teaching laboratories, where you apply some of the theoretical concepts from your studies.

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Academic Mentors or module lecturers on a one-to-one basis.

6. Teaching Staff

University life is not just about the content of your degree. It is also an opportunity to network, to speak to people working in fields that excite you. Here in Life Sciences, you will meet a diverse range of staff that you can see by using the following link: (https://www.keele.ac.uk/lifesci/people).

We will also invite speakers from the Faculty of Medicine and Health Sciences and local NHS Trusts.

Our staff include world-leading researchers, clinical practitioners and experts in learning and teaching. As part of their training, all staff complete post-graduate courses on learning and teaching. Some take this to Masters level and beyond, choosing to specialise in pedagogic research to ensure that our programmes are taught to the very highest standards.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

7. What is the structure of the Programme?

The academic year runs from September to June and is divided into two semesters. The number of weeks of teaching will vary from programme to programme, but you can generally expect to attend scheduled teaching sessions between the end of September and mid-December, and from mid-January to the end of April. Our degree courses are organised into modules. Each module is usually a self-contained unit of study and each is usually assessed separately with the award of credits on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

There are two types of module delivered as part of your programme. They are:

- Compulsory modules - a module that you are required to study on this course;
- Optional modules - these allow you some limited choice of what to study from a list of modules;

For further information on the content of modules currently offered, please visit:
https://www.keele.ac.uk/recordsandexams/modulecatalogue/

A summary of the credit requirements per year is as follows:

Year	Compulsory	Optional	
		Min	Max
Level 6	90	30	30

Module Lists

Level 6

Compulsory modules	Module Code	Credits	Period
Academic and Professional Development in Bioscience	LSC-30096	0	Semester 1-2
Biomedical Blood Science	LSC-30098	30	Semester 1-2
Advanced Clinical Pathology	LSC-30100	30	Semester 1-2
Research Project	LSC-30102	30	Semester 1-2

Optional modules	Module Code	Credits	Period
Human Parasitology	LSC-30036	15	Semester 1
Flexible Work Placement (Level 6)	NAT-30008	15	Semester 1-2
Professional Experience in Education	NAT-30012	15	Semester 1-2
Cancer Biology	LSC-30061	15	Semester 2
Case Studies in Microbiology and Immunology	LSC-30078	15	Semester 2
Epidemiology	LSC-30084	15	Semester 2

Level 6 Module Rules

Please note: You cannot take both Flexible Work Placement (Level 6) and Professional Experience in Education.

8. Final and intermediate awards

Credits required for each level of academic award are as follows:

BSc (Hons) Medical Sciences	120 credits	You will require 120 credits at Level 6

9. How is the Programme Assessed?

The wide variety of assessment methods used on this programme at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance. The following list is representative of the variety of assessment methods used on your programme:

Our assessment strategy will help you to develop and evidence your ability to:

- **Provide evidence-based solutions to current scientific problems**. Most often this is assessed through a range of case report, portfolios and literature reviews.
- **Present scientific findings.** Often these are lab reports or experimental projects that test your ability to pose scientific hypotheses, design experiments, understand methodologies, present findings, analyse data and situate your work in the current literature. Other assessments will also develop your skills in accessing, manipulating and presenting the outcomes of computational investigations, including in bioinformatics and the use of small molecule and macromolecular databases.
- **Communicate effectively with a range of audiences**. These can include scientific posters, patient information leaflets or oral presentations, as well as more standard written reports and literature reviews.
- **Work professionally.** Your research project will give you an opportunity to demonstrate a range of professional skills such as leadership, innovation, time keeping, communication and the ability to work safely and ethically.
- **Work effectively in a team**. Most often this is assessed through group presentations but can also include competencies such as working together in the lab, including as part of your research project, or other group assignments.
- **Solve problems in a time-limited fashion**. Often in the work environment we are asked to solve problems in a relatively short amount of time. Time-limited tests and end-of-semester examinations will help you to evidence these skills.

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

10. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity

	Scheduled learning and teaching activities	Guided independent Study	Placements
Year 1 (Level 4)	44.4%	55.6%	0%

11. Accreditation

This programme does not have accreditation from an external body.

12. University Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: http://www.keele.ac.uk/student-agreement/

If this programme has any exemptions, variations or additions to the University Regulations these will be detailed in an Annex at the end of this document titled 'Programme-specific regulations'.

13. Other Learning Opportunities

The Academic and Professional Development in Bioscience module (LSC-30096) is a non-credit bearing module

designed to support you in the transition to studying at BSc level. This will provide you with additional workshops and tutorials to develop key academic skills in literature searching and analysis, science communication and good academic practice. You will also reflect on development of key employability skills, supported through a range of guest speakers and alumni careers talks. In addition, all students in the School of Life Sciences can attend weekly school research seminars across the year, delivered by word-leading researchers and educators in areas aligned with on-going research activity in the school.

14. Additional Costs

Activity	Estimated Cost
Optional integrated placements	Additional costs may be incurred depending on location and whether there is also funding support from the placement provider. Students will have to bear the costs of travelling to and from their placement provider, accommodation, food and personal costs. Depending on the placement provider additional costs may include parking permits, travel and transport, suitable clothing, DBS checks, and compulsory health checks. A small stipend may be available to students from the placement provider during the placement but this will need to be explored on a placement-by-placement basis. As such, these additional are not possible to estimate however, students will be supported throughout the process by the projects and placements team including identifying suitable placement

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation. We do not anticipate any further costs for this programme.

15. Annex - Programme-specific regulations

Programme Regulations: BSc Medical Science (top-up)

Final Award and Award Titles	BSc (Hons) Medical Science
Last modified	n/a
Programme Specification	https://www.keele.ac.uk/qa/programmespecifications

The University's Academic Regulations which can be found on the Keele University website (https://www.keele.ac.uk/regulations/)[1] apply to and regulate the programme, other than in instances where the specific programme regulations listed below over-ride them. These programme regulations list:

- *Exemptions* which are characterised by the omission of the relevant regulation.
- *Variations* which are characterised by the replacement of part of the regulation with alternative wording.
- *Additional Requirements* which set out what additional rules that apply to students in relation to this programme.

The following **exemptions, variations** and **additional requirements** to the University regulations have been checked by Academic Services and have been approved by the Faculty Education Committee.

A) EXEMPTIONS

The clause(s) listed below describe where an exemption from the University's Academic Regulations exists:

For the whole duration of their studies, students on this Programme are exempt from the following regulations:

- **No exemptions apply.**

B) VARIATIONS

The clause(s) listed below describe where a variation from the University's Academic Regulations exists:

Variation 1: No variations apply

Additional Requirements

The programme requirements listed below are in addition to the University's Academic Regulations:

Additional requirement 1: Laboratory, lecture and tutorial classes

1.1 Wearing a laboratory coat is compulsory in all classes held in laboratories, including lab-based activities as part of the research project module. Students will not be allowed to attend the laboratory class without a laboratory coat.

1.2 Students must wear appropriate clothing in the laboratories, including sensible footwear. Closed shoes and low heels should be worn. This is to avoid tripping and to protect the feet in the case of spillages. Long hair must be tied back. Students who are inappropriately dressed may, at the discretion of the member of staff in charge, be excluded from the class and recorded as being absent without good cause.

1.3 Students who arrive late to laboratory classes may, at the discretion of the member of staff in charge, be excluded from the class and recorded as being absent without good cause.

1.4 Students who display serious misconduct in any class may, at the discretion of the member of staff in charge, be excluded from the class and recorded as being absent without good cause. Serious misconduct involves wilful damage to property, injury or threat to persons, or persistent disruption of teaching.

1.5 The unauthorised use of mobile phones or headphones is not permitted in any class.

1.6Students are not permitted to record, video or photograph taught sessions or meetings with staff, except with the permission in advance of the staff concerned. Permission will be given where this is part of an approved disability adjustment. Any permission to record, video or photograph is for personal use only and all recordings, videos or photographs remain the property of the presenter and Keele University.

1.7 Students are required to read and follow the procedures in the School of Life Sciences Safety Handbook, which is available from the Life Science Noticeboard on the KLE.

_____

[1] References to University Regulations in this document apply to the content of the University's Regulatory Framework as set out on the University website here https://www.keele.ac.uk/regulations/.

Version History

This document

Date Approved: 09 September 2025

What's Changed

LSC-30078 corrected to SEM2 instead of SEM1

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1	2025/26	MIRNA MAARABOUNI	23 July 2025	