

Course Information Document: Undergraduate

For students starting in Academic Year 2022/23

1. Course Summary

Names of programme and award title(s)	BSc (Hons) Biomedical Science BSc (Hons) Biomedical Science with International Year BSc (Hons) Biomedical Science with Work Placement Year BSc (Hons) Applied Biomedical Science BSc (Hons) Studies in Biomedical Sciences BSc (Hons) Studies in Biomedical Sciences with International Year BSc (Hons) Studies in Biomedical Sciences with Work Placement Year
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	3 years, or 4 years for students that take a 46-week clinical placement, or who complete our Industrial Placement or International Year options. 1 year
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	The Biomedical Science course, with or without the International Year or Work Placement Year, is accredited by the Royal Society of Biology and the Institute of Biomedical Science (IBMS). The Applied Biomedical Science (ABMS) course is also approved by the Health & Care Professions Council (HCPC). For further details see the section on Accreditation.
Regulator	Office for Students (OfS)
Tuition Fees	<p>UK students:</p> <p>Fee for 2022/23 is £9,250*</p> <p>International students:</p> <p>Fee for 2022/23 is £17,900**</p> <p>The fee for the international year abroad is calculated at 15% of the standard year fee</p> <p>The fee for the work placement year is calculated at 20% of the standard year fee</p>

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/>

*** 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

Biomedical Science is a study of the human body and the disorders that can affect it. We start by looking at normal function including whole systems and organs right down to a cellular, molecular and genetic level. We then explore the comprehensive range of diseases and disorders that can affect our body including infective entities such as bacteria and viruses. Ultimately, you will gain real insight into how we can exploit the difference between 'normal' bodily functions and 'abnormal' in order to make a difference. That could be through better diagnostic tests, more accurate monitoring systems, improved treatment strategies and so on.

Biomedical Science is a multi- and inter-disciplinary subject. You will combine knowledge and understanding of different areas of biology to solve real-life problems. This will include: human physiology, biochemistry, pathobiology, immunology, molecular biology and neuroscience.

Our programme is accredited by the Institute of Biomedical Science (IBMS). This means that our programme puts clinical, diagnostic laboratories and patient pathways at the heart of your learning experience. You will learn how Biomedical Scientists working in UK Pathology Laboratories fulfil their role and contribute to healthcare delivery.

Students often choose this programme as a stepping stone to other professions such as Medicine, to become vocational Biomedical Scientists, train for a career in research or to work in the private, scientific community.

3. Aims of the programme

The broad aims of the programme are to:

- provide you with core knowledge, understanding and skills relevant to Biomedical Science;
- provide an appropriate qualification for a career as a Biomedical Scientist;
- produce skilled and motivated graduates who are suitably prepared for further study or for employment within or outside their field;
- cultivate interest in the biosciences, particularly at the cellular and molecular level, within a caring and intellectually stimulating environment;
- promote the development of a range of employability skills, for use in all areas where numeracy and an objective, scientific approach to problem-solving are valued;
- promote the development of independent research skills to enable you to undertake relevant postgraduate study.

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
- Intellectual skills
- Key employability skills

Subject Knowledge and Understanding

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

Level 4

- Core biological topics that underpin biomedical science including: anatomy, molecular biology; molecular genetics; biochemistry; macromolecular structure and function; enzymes and catalysis; metabolism and its control; cell biology; cell signalling; membranes and transport; human physiology and pathology
- Key subjects in biomedical science with a focus on Cellular Pathology (histology and cytology) and Medical Microbiology

Level 5

- Greater detail of those subjects listed above, plus biotechnology, information technology and both structural and cellular immunology
- Key subjects in biomedical science with a focus on Haematology (including transfusion science), Clinical Biochemistry and Medical Immunology

Level 6

- Greater insight into those subjects listed above, plus pathobiology, data analysis and science communication
- The importance of interdisciplinarity in problem solving and patient pathways
- The scientific method, hypothesis-driven investigation and the critical nature of evidence and scientific debate
- Analytical methods and techniques, including bioinformation such as interpretation of data extracted from molecular databases
- Appropriate terminology and nomenclature
- Biomedical ethics

Subject Specific Skills

Successful students will be able to:

- Use a range of laboratory techniques for the acquisition and analysis of information relevant to biomedical science
- Design, conduct, analyse, report and evaluate biomedical experiments
- Work safely and responsibly in the laboratory with awareness of standard procedures, COSHH and good laboratory practice (GLP)
- Apply biomedical understanding to familiar and unfamiliar problems
- Apply scientific method, planning and analytical skills to carry out a research project
- Recognise philosophical and ethical issues relevant to the subject
- Applied Biomedical Science students will be able to demonstrate compliance with the Health and Care Professions Council Standards of Proficiency for Biomedical Scientists

Intellectual Skills

Successful students will be able to:

- Assess the merits of contrasting theories and explanations and develop reasoned arguments
- Identify, analyse and solve problems, whether familiar or unfamiliar, individually and/or co-operatively
- Make evidence-based decisions and critical judgements
- Extract and synthesise information and make critical interpretations of quantitative and qualitative scientific findings
- Take responsibility for their own learning and reflect upon that learning
- Construct grammatically correct documents in an appropriate academic style, using and referencing relevant ideas and evidence
- Understand the importance of academic and research integrity

Key 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
- Prepare, process and present data using appropriate qualitative and quantitative techniques: statistical programmes, spreadsheets and programmes for presenting data visually
- Use the Internet and other electronic resources, effectively and critically, as a means of communication and a source of information
- Communicate effectively 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
- Motivate yourself and sustain that motivation over an extended period of time
- Cite and reference work in an appropriate manner, ensuring academic integrity and the avoidance of plagiarism, whether intentional or not

We are committed to developing not only your intellectual, but also personal and professional skills. Alongside our innovative programme, Keele University offers a wide range of enriching activities that offer added value and aim to maximise your potential.

Further information can be found at: <http://www.keele.ac.uk/journey/>

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 and local employers in our decision-making process.

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

- **Laboratory practicals.** Take place in one of our labs. These give you first-hand experience in a range of scientific techniques and have been designed to ensure you develop both independent and team-based skills.
- **Online lectures.** Traditional 'lectures' are often delivered online using short videos, directed reading, key learning outcomes and Forms that you can use to ask questions anonymously. This approach will give you far more flexibility to study where, when and how you choose.
- **Live, campus-based seminars.** Delivered by experts in the field - and often external, guest speakers - seminars are ordinarily recorded on the day so you can focus better on the discussion during the live event.
- **Live, campus-based tutorials and workshops.** Often designed to support online lectures. 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 and discuss content with other students and your tutors.
- **Live, case-based learning (CBL) tutorials.** In CBL, you will work in small groups to discuss patient cases that help you to contextualise much of the content taught across the programme and develop key skills such as leadership, communication and evidence-based problem solving.
- **Live, online tutorials, workshops and drop-in sessions.** Often used to host plenary sessions. These plenary sessions are optional, added value and may cover topics common to all students such as: note taking and meet your alumni at Level 4; IT and data analysis at Level 5 and writing retreats and careers at Level 6.

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 School of Pharmacy, Medicine 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 is divided into two taught semesters. Each semester will generally have twelve weeks of teaching followed by three weeks of final assessments. Details of each semester can be found using the following link: <https://www.keele.ac.uk/students/academiclife/keydates/>.

Our programme is organised into discrete modules. Each module is assessed independently and awarded a set number of credits (usually 15 or 30). A 15-credit module equates to 150 hours of student work. Some modules are compulsory and you are required to complete them. Others are optional, giving you some choice in what you want to study.

At Level 4, all of our modules are compulsory to ensure that you are given a solid foundation to your degree programme regardless of your academic background. Here, we assume no prior knowledge and will make sure that Level 4 prepares you for Level 5 and 6.

At Level 5 you have a few limited optional modules to choose from, and at Level 6 50% of your modules are optional. This allows you to increasingly specialise in those areas of the programme that interest you most.

Year	Compulsory	Optional		Electives	
		Min	Max	Min	Max
Level 4	120	0	0	0	0
Level 5	90	15	30	0	15
Level 6	30	90	90	0	0

Module Lists

Level 4

Compulsory modules	Module Code	Credits	Period
Biochemistry	LSC-10064	30	Semester 1
Clinical Applications of Biomedical Science I	LSC-10070	30	Semester 1-2
Physiology and Anatomy	LSC-10074	30	Semester 1-2
Core Practical Skills	LSC-10087	0	Semester 1-2
Molecular Cell Biology	LSC-10066	30	Semester 2

LSC-10087 is a core lab-based module. Students who fail this module will transfer to *Studies in Biomedical Science*. This is not accredited by the IBMS or RSB.

Level 5

Compulsory modules	Module Code	Credits	Period
Gene and Protein Engineering	LSC-20003	15	Semester 1
Molecular, Cellular and Structural Immunology	LSC-20015	15	Semester 1
Clinical Applications of Biomedical Science II	LSC-20089	30	Semester 1-2
Practical Skills in Bioscience	LSC-20107	0	Semester 1-2
Metabolism in Health and Disease	LSC-20016	15	Semester 2
Research and Analytical Skills	LSC-20056	15	Semester 2

Optional modules	Module Code	Credits	Period
Human Genetics	LSC-20050	15	Semester 1
Microbes, Viruses and Parasites	LSC-20073	15	Semester 1
Professional Relationships	LSC-20040	15	Semester 1-2
Cell Signalling	LSC-20085	15	Semester 2

Level 5 Module Rules

LSC-20040 is core for *Applied Biomedical Science*

Study Abroad modules - If you successfully apply for study abroad (not the International Year option) you can choose to do this in only one of the semesters of Level 5. The required modules must be selected from the relevant semester of study abroad. If a student elects to undertake the semester-long Study Abroad option, the degree award will be '*Studies in Biomedical Sciences*'; the degree will NOT be accredited by the IBMS and therefore will not fulfil the required academic qualification for eligibility for HCPC registration as a Biomedical Scientist. The year-long International Year option is Royal Society of Biology- and IBMS-accredited.

LSC-20107 is a core lab-based module. Students who fail this module will transfer to *Studies in Biomedical Science*. This is not accredited by the IBMS or RSB.

Level 6

Compulsory modules	Module Code	Credits	Period
Biology of Disease - ISP	LSC-30015	15	Semester 1-2
Bioinformatics and Science Communication	LSC-30057	15	Semester 1-2

Optional modules	Module Code	Credits	Period
Structural Biology & Macromolecular Function	LSC-30016	15	Semester 1
Advances in Medicine	LSC-30028	15	Semester 1
Human Parasitology	LSC-30036	15	Semester 1
Double Applied Life Sciences Placement - ISP	LSC-30038	30	Semester 1
Biomedical Engineering	LSC-30055	15	Semester 1
Brain Disease	LSC-30063	15	Semester 1
Tropical Biology Field Course	LSC-30066	15	Semester 1
Applied Regenerative Medicine	LSC-30068	15	Semester 1
Double Applied Biomedical Science Placement - ISP	LSC-30044	30	Semester 1-2
Life Sciences Double Experimental Project (with research skills assessment)	LSC-30045	30	Semester 1-2
Clinical Pathology	LSC-30009	15	Semester 2
Case Studies in Biomedical Sciences	LSC-30026	15	Semester 2
Cancer Biology	LSC-30061	15	Semester 2

Level 6 Module Rules

LSC-30026 and LSC-30044 are both core for *Applied Biomedical Science* students.

LSC-30038, LSC-30045 and LSC-30044 are all 30-credit modules based on a significant independent student research project. All students choose only one of these modules determine as follows:

- *Applied Biomedical Science* take LSC-30044
- *Biomedical Science with Industrial Placement* take LSC-30038
- All other *Biomedical Science* students take LSC-30045

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

8. Final and intermediate awards

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

Honours Degree	360 credits	<p>You will require at least 120 credits at Levels 4, 5 and 6</p> <p>You must accumulate at least 270 credits in <i>Biomedical Science</i> or <i>Applied Biomedical Science</i> (out of 360 credits overall), with at least 90 credits in each of the three years of study*, to graduate with a named single honours degree in <i>Biomedical Science</i> or <i>Applied Biomedical Science</i>.</p> <p>*An exemption applies for students transferring from a Combined Honours programme - see point 3.4 here: https://www.keele.ac.uk/regulations/regulationc3/</p> <p>N.B. The award will be '<i>Studies in Biomedical Science</i>' if the Study Abroad option is taken and/or if a pass standard is not achieved in the Level 4 <i>Core Practical Skills</i>, Level 5 <i>Practical Skills in Bioscience</i> or in one of your Level 6 <i>Independent Student Research</i> modules. Our '<i>Studies in Biomedical Science</i>' pathway is not accredited by the Institute of Biomedical Science or Royal Society of Biology.</p>
Diploma in Higher Education	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
Certificate in Higher Education	120 credits	You will require at least 120 credits at level 4 or higher

International Year option: In addition to the above students must pass all the modules covering the international year in order to add 'with international year' to the degree title. Students who fail to complete the international year will revert to the standard degree title.

Work Placement Year option: in addition to the above students must pass a non-credit bearing module covering the work placement year in order to graduate with a named degree including the '*with Work Placement Year*' wording. Students who do not complete, or fail the work placement year, will be transferred to the three-year version of the programme.

9. How is the Programme Assessed?

Our assessment strategy is designed to be authentic and diverse so that you can develop key skills that meet academic, professional body and employer expectations. Module managers will provide appropriate guidance for each assessment and the marking criteria that will be used to assess your work.

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 essays, portfolios and literature reviews.
- **Critically reflect on current issues.** Reflective writing is an increasingly important skill in the workforce, particularly to healthcare professions. It can help you to identify personal strengths and weaknesses so that you can learn from your experience and maximise your potential.
- **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.
- **Communicate effectively with a range of audiences.** These can include scientific posters, patient information leaflets, wikis, blogs or oral presentations.
- **Work professionally.** Your final year, independent 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.
- **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. Our online tests and end-of-semester, online, open-book examinations will help you to evidence these skills.

We aim to provide constructive feedback within 3 weeks of submission for all assessed work. This is often phrased in terms of strengths, weaknesses and ways to improve to help you focus on key areas that can

improve the quality of your work in the future.

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: 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)	19%	81%	0%
Year 2 (Level 5)	24%	76%	0%
Year 3 (Level 6)	10%	90%	0%

11. Accreditation

The programme includes the opportunity to graduate with an Applied Biomedical Science (ABMS) degree, which incorporates a clinical placement leading to the completion of the Health and Care Professions Council (HCPC) Standards of Proficiency for Biomedical Scientists.

All routes through the programme except for Studies in Biomedical Sciences, with or without Work Placement or International Year, are accredited by the Royal Society of Biology and the Institute of Biomedical Science (IBMS). The ABMS course is also approved by the Health & Care Professions Council (HCPC). Successful ABMS students are eligible to apply for registration with the HCPC and also receive the IBMS Certificate of Competence, making them eligible for Licentiate membership of the IBMS.

Please note the following:

- **Module Attainment:** Students should note that to be awarded IBMS and Royal Society of Biology accreditation they must achieve a minimum standard of 40% in the Life Sciences Double Experimental Project with research skills assessment (or equivalent placement module). For an HCPC-approved ABMS award, students must pass all assessment elements of the Double Applied Biomedical Science Placement module including the portfolio.
- **Regulations:** Your programme has professional accreditation and there are specific regulations, which you have to agree to abide by, as detailed below.
- **Study abroad (one semester only):** Because studying abroad has implications for IBMS accreditation of the Biomedical Science degree (students taking Study Abroad are not eligible for an IBMS-accredited degree) students wishing to Study Abroad must discuss this in advance with the School of Life Sciences 'Study Abroad tutor' and the Biomedical Science Programme Director.

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

We are committed to offering a rich and diverse student experience that goes far beyond your degree.

Most years, we are able to offer range of different opportunities to enrich your student experience. These can include:

- **Study abroad.** You could apply to spend one semester at Level 5 studying in one of our international partner universities. This not only gives you valuable international experience, but can also allow you to study a complimentary subject - such as epidemiology or molecular biology - in greater detail. However, if you do take this option then you will no longer be eligible for an IBMS or RSB accredited programme and will transfer to our *Studies in Biomedical Science* pathway. The marks that you achieve whilst studying abroad will count to your overall attainment across Level 5.
- **International year.** Is similar to study abroad, but here you choose to take an additional year in between Levels 5 and 6 studying in one of our international partner universities. You will still be eligible for both an IBMS and RSB accredited degree. More information can be found at: <http://www.keele.ac.uk/studyabroad/partneruniversities/>
- **Industrial placements.** You could apply to a range of national and international employers for an industrial placement. These take place in between Level 5 and 6 and usually last 6-9 months. They provide excellent work experience and an opportunity to collect data for your Level 6 independent research student project.
- **Secondments.** These are shorter industrial placements that usually take place over the summer in between Level 5 and 6 and usually last between 2-8 weeks. They can be based locally in one of our research labs here at Keele, nationally or internationally. For example, often some our students will travel to Malaysia to work with our partner *Universiti Sains Malaysia*.
- **Tropical field trip.** You could apply for our School tropical field that takes place in Malaysia. These are often more conservational in nature, but again provide fantastic international experience.
- **Operation Wallacea.** This is a private company that supports a wide range of student projects with a particular focus on biodiversity and climate research. More information can be found at: <https://www.opwall.com>
- **Clinical placements.** You could apply for a clinical placement. These differ from industrial placements in that they give you an opportunity to demonstrate compliance with the HCPC Standards of Proficiency. Successful students transfer to our *Applied Biomedical Science* degree that is accredited by the HCPC. Graduates of our *Applied* route receive an IBMS Certificate of Competence along with their degree.

Note: the opportunities described above are limited and dependent on external providers. We may not be able to offer them every year and there will be additional costs if you do successfully secure a place. We discuss all of these options in more detail across Level 4 and Level 5 so you can make an informed decision.

14. Additional Costs

Applied Biomedical Science students may have to pay for a full course of Hepatitis B vaccination and a Disclosure and Barring Service (DBS) enhanced check prior to starting clinical 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 - International Year

Biomedical Science with International Year

International Year Programme

At Level 5 you can apply to transfer onto our International Year pathway. If successful, you will have an additional year of study at one of our international partner Universities once you have completed Level 5 here at Keele.

Students who successfully complete both the second year (Level 5) and the International Year will be permitted to progress to Level 6. Students who fail to satisfy the examiners in respect of the International Year will normally revert to the standard programme and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript.

Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional information below only applies to those students taking *Biomedical Science with International Year*.

International Year Programme Aims

In addition to the programme aims for *Biomedical Science*, we also aim to:

1. Enhance your personal development give you an insight into the international dimension of Biomedical Science
2. Give you an experience of a different culture, academically, professionally and socially

Entry Requirements for the International Year

Students may apply to the 4-year programme during Level 5. Admission to the International Year is subject to successful application, interview and references from appropriate staff.

The criteria to be applied are:

- Academic Performance (an average of 55% across all modules at Level 5 is required. Students with up to 15 credits of re-assessment who meet the 55% requirement may progress to the International Year. Where no Semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are taken into account)
- General Aptitude (to be demonstrated by application for study abroad, interview during the 2nd semester of year 2 (Level 5), and by recommendation of the student's personal tutor, 1st and 2nd year tutors and programme director)

Students may not register for both an International Year and a Placement Year.

Student Support

We have a dedicated Study Abroad tutor within Life Sciences that will stay in touch with you throughout your International Year, effectively acting as an additional Personal Tutor. There is also support available for Keele's Global Opportunities Team (<https://www.keele.ac.uk/study/studyabroad/>)

Learning Outcomes

In addition to the learning outcomes for *Biomedical Science*, students who graduate with *Biomedical Science with International Year* will be able to:

1. Describe, discuss and reflect upon the cultural and international differences and similarities of different learning environments
2. Discuss the benefits and challenges of global citizenship and internationalisation
3. Explain how their perspective on their academic discipline has been influenced by locating it within an international setting.
4. Use independent research skills to identify relevant information resources on a range of subjects related, or complementary, to Biomedical Science.
5. Demonstrate the use of critical thinking skills, augmented by creativity and curiosity, in discussing the application of their International Year studies to Biomedical Science.

These learning outcomes will all be assessed by the submission of a satisfactory individual learning agreement, the successful completion of assessments at the partner institution and the submission of the reflective portfolio element of the international year module.

Regulations

Students registered for the International Year are subject to the programme-specific regulations (if any) and the University regulations. In addition, during the International Year, the following regulations will apply:

Students undertaking the International Year must complete 120 credits, which must comprise at least 40% in the student's discipline area.

This may impact on your choice of modules to study, for example you will have to choose certain modules to ensure you have the discipline specific credits required.

Students are barred from studying any module with significant overlap to the Level 6 modules they will study on their return. Significant overlap with Level 5 modules previously studied should also be avoided.

Additional costs for the International Year

Tuition fees for students on the International Year will be charged at 15% of the annual tuition fees for that year of study, as set out in Section 1. The International Year can be included in your Student Finance allocation, to find out more about your personal eligibility see: www.gov.uk

Students will have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Students who meet external eligibility criteria may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some Governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

16. Annex - Work Placement Year

Biomedical Science with Work Placement Year

Work Placement Year summary

At Level 4 or 5 you can apply to transfer onto our Work Placement Year pathway.

Students registered for this programme may either be admitted for or apply to transfer during their studies to the 'with Work Placement Year' option (NB: for Combined Honours students the rules relating to the work placement year in the subject where the placement is organised are to be followed). Students accepted onto this programme will have an extra year of study (the Work Placement Year) with a relevant placement provider after they have completed Year 2 (Level 5) at Keele.

Students who successfully complete both the second year (Level 5) and the Work Placement Year will be permitted to progress to Level 6. Students who fail to satisfactorily complete the Work Placement Year will normally revert to the 3-year programme and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript.

Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional information below only applies to those students taking *Biomedical Science with Work Placement Year*.

Work Placement Year Programme Aims

In addition to the programme aims for *Biomedical Science*, we also aim to:

1. Provide experience of working in a subject-related laboratory or work place within an industrial, academic or public institution either in the UK or abroad.

Entry Requirements for the Work Placement Year

Transfer onto Work Placement Year is subject to a selection process as described below:

- Academic performance. Evidenced by good overall engagement with your programme, passing all modules across Level 4 and semester 1 of Level 5 with an overall grade average of >60%.
- General aptitude. Evidenced by suitable references provided by an academic member of staff (usually your Personal Tutor) and interview.
- Health and safety. Evidenced by completion of a Keele Health and Safety checklist and compliance with health and safety requirements of your placement provider.
- (*International students only*) You should be aware that there may be additional visa implications for this transfer, and it is your responsibility to complete any and all necessary processes to be eligible for this pathway. There may be additional costs, including applying for a new Visa from outside of the UK for international students associated with a transfer to the work placement programme.

Students may not register for both an International Year and a Work Placement Year.

Student Support

We have a dedicated Industrial Placement tutor within Life Sciences that can act as a point of contact for you before, during or after your placement year. You will also be assigned a Placement Supervisor. This will be an academic member of the School who will maintain regular contact with you throughout your placement and will become your project supervisor at Level 6. The School Director of Education will also act as a whistleblower. This means that you can contact them in strict confidence at any point during your placement if you have any concerns about your placement provider or overall experience.

Learning Outcomes

In addition to the learning outcomes for *Biomedical Science*, students who graduate with *Biomedical Science with Placement Year* will be able to:

1. Demonstrate an ability to successfully work within their placement institution and to learn practical skills and develop their science base within the scope of their work project.

These learning outcomes will be assessed through successful completion of LSC-30038.

Regulations

In addition to the regulations for *Biomedical Science*, the following additional regulations apply:

- Compliance with any contractual obligations expected by the placement provider
- Complete a minimum of 30 weeks (1,050 hours) on placement
- Successful completion of LSC-30038 Double Applied Life Sciences Placement
- The placement student will also sign up an agreement outlining his/her responsibilities in relation to the requirements of each organisation.

You are expected to behave professionally at all times on placement. This means conforming to the work practices of your placement provider and remembering that you are a representative of Keele University.

Additional costs for the Work Placement Year

Tuition fees for students on the Work Placement Year will be charged at 20% of the annual tuition fees for that year of study, as set out in Section 1. The Work Placement Year can be included in your Student Finance allocation; to find out more about your personal eligibility see: www.gov.uk

You will have to bear the costs of travelling to and from your 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 some organisations, such as charities, may not have any extra money available. You should budget with the assumption that your placement will be unpaid.

Eligibility for student finance will depend on the type of placement and whether it is paid or not. If it is paid, this is likely to affect student finance eligibility, however if it is voluntary and therefore unpaid, should not affect student finance eligibility. You are required to confirm eligibility with your student finance provider.

International students who require a Tier 4 visa should check with the Immigration Compliance team prior to commencing any type of paid placement to ensure that you are not contravening visa requirements.

17. Annex - Programme-specific regulations

Programme Regulations: Biomedical Science

Final Award and Award Titles	<p>BSc (Hons) Biomedical Science</p> <p>BSc (Hons) Biomedical Science with International Year</p> <p>BSc (Hons) Biomedical Science with Work Placement Year</p> <p>BSc (Hons) Applied Biomedical Science</p> <p>BSc (Hons) Studies in Biomedical Sciences</p> <p>BSc (Hons) Studies in Biomedical Sciences with International Year</p> <p>BSc (Hons) Studies in Biomedical Sciences with Work Placement Year</p>
Intermediate Award(s)	<p>Diploma in Higher Education</p> <p>Certificate in Higher Education</p>
Last modified	November 2019
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.

The following **additional requirements** to the University academic regulations apply to Biomedical Science.

Regulations applying to Biomedical Science

1. If the semester-long Study Abroad option is taken, the degree award will be '*Studies in Biomedical Sciences*', the degree will NOT be accredited by the IBMS and therefore will not fulfil the required academic qualification for HCPC registration as a Biomedical Scientist.
2. A pass mark must be obtained in both of our zero-credit, lab-based modules (one at Level 4 and the other Level 5) and the relevant experimental project module at Level 6 to be awarded an IBMS and RSB accredited programme. Students who do not fulfil this conditions will be transferred to the '*Studies in Biomedical Sciences*' route. This degree is NOT accredited by the IBMS and therefore will not fulfil the required academic qualification for eligibility for HCPC registration as a Biomedical Scientist. The degree award of '*Studies in Biomedical Sciences*' is not accredited by the Royal Society of Biology.

Regulations applying to Biomedical Science and Applied Biomedical Science

1. Wearing a laboratory coat is compulsory in all laboratories. Students will not be allowed to attend the laboratory class without a laboratory coat.
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.
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.
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.
5. The unauthorised use of mobile phones or headphones is not permitted in any class.
6. Students 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.
7. Students are required to read and follow the procedures in the School of Life Sciences Safety Handbook, which is available from the School Noticeboard on KLE.

Applied Biomedical Science-specific regulations

The Applied Biomedical Science programme is subject to further criteria required by the Health and Care Professions of Council (HCPC):

1. Students on the Applied Biomedical Science programme are subject to the University Regulation on Fitness to Practise ([University Regulation B5](#)).
2. Demonstrate that they have no medical/health issues that may affect their fitness to practise. This will be assessed by the University's Occupational Health department either before (if medical issues have been identified) or at the start of the programme. A health screening questionnaire must be completed by students holding a place on prior to the start of their Level 5 studies.
3. Applied Biomedical Science students must attend full-time at their allocated hospital(s) during the full period of their vacation placement periods, abide by their conditions of contract and partake fully in the provided training programme. Students who do not fulfil the conditions of this regulation satisfactorily

will revert to the Biomedical Science route.

4. Applied Biomedical Science students must achieve a pass grade for the Double Applied Biomedical Science Placement module. If this module is failed, the student will revert to the *Biomedical Science* route (or *Studies in Biomedical Sciences* award, if all of the requirements of the Biomedical Science award are not met (i.e. if a mark of less than 40% is achieved: see point 9 above (see BMS-specific regulations above)). In this case, the mark for the Double Applied Biomedical Science Placement module will be substituted *in lieu* of the Life Sciences Double Experimental Project (with research skills assessment) module.
5. Students who are awarded an Applied Biomedical Science degree will have met the HCPC's Standards of Proficiency for Biomedical Scientists and will be eligible to apply for HCPC registration (subject to the conditions given in point 9 above).
6. Applied Biomedical Science students must complete a course of vaccination against hepatitis B before starting their placement.
7. Students should note that an aegrotat award cannot provide eligibility for admission to the HCPC register. In addition, applicants for registration are required to provide further information to the HCPC, including a health reference from a medical practitioner (who must not be a relative) and a character reference from 'someone of professional standing in the community'. Registration is required to work as a qualified Biomedical Scientist in the NHS.
8. Applied Biomedical Science graduates will also receive the IBMS Certificate of Competence and are eligible for Licentiate Membership of the IBMS.
9. Selection criteria apply to transfer onto the Applied Biomedical Science programme from Level 4 Biomedical Science. Successful candidates are required to:
 - i. Demonstrate a good command of reading, writing and spoken English, evidenced by their Level 4 coursework;
 - ii. Successfully complete Level 4;
 - iii. Demonstrate an aptitude for the role of a Biomedical Scientist through interviewers applying the NHS person specification for a trainee Biomedical Scientist post;
 - iv. Undergo an enhanced Disclosure and Barring Service (DBS) check prior to acceptance onto the course, including any spent and unspent criminal convictions and cautions. The University follows the DBS Code of Practice and can provide a copy of this Code on request.
(see <https://www.gov.uk/government/publications/dbs-code-of-practice>).

Please note that having a criminal record is not necessarily a bar to obtaining a place on this course. Disclosure is mandatory but each case will be considered individually. demonstrate that they have completed a course of Hepatitis B vaccination prior to undertaking their placement;

Version History

This document

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Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1	2021/22	GLENN HUSSEY	08 February 2021	
1	2020/21	GLENN HUSSEY	18 December 2019	
1	2019/20	GLENN HUSSEY	18 December 2019	