Programme Specification: Undergraduate

For Academic Year 2026/27

1. Course Summary

Names of programme and award title(s)	BSc (Hons) Bioengineering (Regenerative Medicine) BSc (Hons) Bioengineering (Regenerative Medicine) with International Year BSc (Hons) Bioengineering (Regenerative Medicine) with Work Placement Year BSc (Hons) Studies in Bioengineering (Regen Med) BSc (Hons) Studies in Bioengineering (Regen Med) with International Year BSc (Hons) Studies in Bioengineering (Regen Med) 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; 4 years with either the International Year or Placement Year between years 2 and 3
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Guy Hilton Research Centre Hospital - Medical Keele Campus Robert Jones and Agnes Hunt Orthopedic Hospital
Accreditation (if applicable)	This course is accredited by the Royal Society of Biology for the purpose of meeting in part the academic and experience requirement for the Membership and Chartered Biologist (CBiol).
Regulator	Office for Students (OfS)
Tuition Fees	**UK students:** Fee for 2026/27 is £9,790* **International students:** Fee for 2026/27 is £18,200** The fee for the international year abroad is calculated at 15% of the standard year fee. The fee for the work placement year is calculated at 20% of the standard year fee.

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. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on this subject. In keeping with Keele's commitment to breadth in the curriculum, the programme also gives you the opportunity to take some modules in other disciplines and in modern foreign languages as part of a 360-credit Honours degree. Thus it enables you to gain, and be able to demonstrate, a distinctive range of graduate attributes.

3. Overview of the Programme

BSc (Hons) Bioengineering (Regenerative Medicine) is an innovative undergraduate programme that focuses on Bioengineering in the wider context of Regenerative Medicine. The programme aims to develop aspiring bioengineers into a specialised workforce that will respond to the future demands for regenerative therapeutic strategies. This programme will equip you with a transdisciplinary bioengineering know-how, laboratory skills and lexicon that will allow you to work on research, discovery and production of regenerative medicines.

In your first year, you will study fundamental aspects of cell and molecular biology, biochemistry, genetics, human physiology and anatomy and key concepts of bioengineering. In the second year, you will explore core elements of bioengineering including stem cell biology, biomaterials and tissue engineering, molecular biology and concepts in immunology. In your third year you will study biomedical engineering, concepts in good manufacturing processes, employability and communication skills and undertake an extensive research project. Within your second and third year you will be able to choose optional topics to tailor your experience to your own interests and career goals, for example homing biological theory in cell biology for regenerative medicine, cell signalling, studying current topics in regenerative medicine, cancer biology, precision medicine and nanomedicine or further enrich your training with global challenge pathways or by learning a language.

During the first and second year of the programme you will acquire appropriate laboratory skills through sessions delivered in our state-of-the-art David Attenborough, Central Science Laboratories and at the Guy Hilton Research Institute (at the Royal Stoke University Hospital Site). These sessions provide a hands-on authentic experience of discipline appropriate laboratory skills. In your final year you will have the opportunity to utilise these skills within your final year research project (laboratory of computer based) to address research questions concerning human health and disease and the latest bioengineering strategies.

Options also include a work placement year, study abroad for a semester or an international year of study provide further experiential learning opportunities developing additional employability skills. Shorter optional placement modules provide added flexibility for experiential learning alongside your studies in a range of industries and employer settings, including an education-focused optional module for those interested in a career in teaching.

4. Aims of the programme

The Bioengineering (Regenerative Medicine) discipline integrates biochemical, molecular and cellular knowledge with engineering principles to design new types of advanced therapies to repair, replace and rejuvenate damaged or diseased tissues. While Cell Engineering looks at cell-related phenomena, tissue engineering covers a broad range of applications ranging from physiology to nanotechnology, from biochemistry to mechanobiology, placing more emphasis on the design of biocompatible scaffolds that promote desirable cell behaviour leading to replacement and remodelling of a whole tissue.

The broad aims of the BSc (Hons) Bioengineering (Regenerative Medicine) programme are to enable you to:

- develop a broad knowledge of molecular techniques and their applications to identify solutions for biological and medical problems.
- understand the critical potential of stem cells and reprogrammed pluripotent stem cells as pivotal source for engineered replacement of damaged tissues and cell therapies.
- learn the structural and mechanical properties of tissue to design optimised biocompatible materials that make possible the construction of engineered scaffolds for cells.
- acquire a range of graduate skills related to the research and commercial development of regenerative medicine products that should facilitate your postgraduate career.

5. 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:

- K1 - describe the biochemical and molecular functions of cells and extracellular milieux;
- K2 - develop an understanding of the gross embryological, anatomical and physiological characteristics of the main systems of the human body;
- K3 - understand the sources and features of different types of human stem cells;
- K4 - evaluate the strategies to use stem cells as disease models and therapeutic tools;
- K5 - describe the physico-chemical properties of different biomaterials and nanomaterials that support tissue/organ growth, implantation and drug delivery;
- K6 - demonstrate familiarity with the concepts of genetic and genome engineering;
- K7 - discuss the concept of genomic medicine;

Subject specific skills

Successful students will be able to:

- S1 - manage their own learning and utilise appropriate resources to the discipline;
- S2 - work safely and effectively in a scientific laboratory;
- S3 - collect, analyse and critically discuss scientific data relevant to the discipline;
- S4 - communicate confidently on topics related to the degree;
- S5 - understand the limits and ethical issues of the discipline and the need for codes of practice

Key or transferable skills (including employability skills)

Successful students will be able to:

- E1 - Effectively participate and work as a team or professional group.
- E2 - Constructively use feedback and take evidence-informed decisions.
- E3 - Identify and manage appropriate resources to solve problems.
- E4 - Confidently communicate information, ideas, problems and solutions to peers or professionals of the field of practice.

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, environmental 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.

6. How is the programme taught?

Learning and teaching methods used on the programme vary according to the subject matter and level of the module. They include the following:

The School of Life Sciences is a nationally recognised leader for the innovative blended approach to teaching and learning that brings together three main teaching activities: synchronous classroom - based (face-to-face or online) experience; online learning materials and independent study using learning materials provided by the teacher to strengthen knowledge and develop skills. The School has developed spiral curriculum that used multiple forms of active learning including flipped-classrooms , audience response systems and technology

enhanced learning complemented with authentic assessments and synoptic group tasks. Learning and teaching methods used on the programme vary according to the subject matter and level of the module. They include the following:

- traditional lectures, workshops, science and computer laboratories (individual or in group), problem-based learning activities, journal clubs, virtual sessions.
- seminars by scientists, clinicians or industry experts that are nationally and internationally recognised experts of the field.
- a research project that will be supervised by an academic of the School of Life Sciences and expose the student to active research.
- 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.

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.

These learning and teaching methods enable students to achieve the learning outcomes of the programme in a variety of ways. For example:

- Lectures, workshops and virtual sessions expose students to the principles of Cell and Tissue Engineering and its related disciplines and give the opportunity to students to present their own ideas, discussing them with academics and their fellow students.
- Seminars, presentations and journal clubs allow students to gain knowledge from the most recent discoveries in Cell and Tissue Engineering and ask questions about the subjects to experts of the field.
- Problem Based Learning sessions encourage students to critically consider the important challenges that scientists are facing in the field of Cell and Tissue Engineering to bring to the clinics novel experimental engineered tools.
- Laboratory sessions test practical skills, team working, organisational skills, initiative and expose students to some of the most used techniques relevant to biomedical discipline and Cell and Tissue Engineering.
- Research Projects help students to gain research experience by joining one of the research active laboratories of the School of Life Sciences.

7. Teaching Staff

The programme of Bioengineering (Regenerative Medicine) has brought together bioengineers, pharmacists, material scientists and physicians to develop this research-led educative programme that will instruct students in the multiple aspects of translational medicine and bioengineering. The School will provide an outstanding and inspiring environment for students, connecting them with research active academics that have world-leading expertise in the field of Bioengineering and Regenerative Medicine. The academic staff contributing to the programme will include lecturers, senior lecturers and professors from multiple fields of expertise ranging from molecular biology to regenerative medicine with extensive expertise in teaching undergraduate and postgraduate academic programmes. The staff group, who serves on the programme, conducts highly interdisciplinary world-leading research on subjects related to the field of Bioengineering [Regenerative Medicine], publishing in well recognized international scientific journals. Many of our staff sit on international and national committees, highlighting the recognition of our work at the highest level.

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.

8. 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 course to course, 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.

Global Challenge Pathways

This programme includes the option for you to take a Global Challenge Pathway. These modules offer you an exciting opportunity to work with students and staff from different disciplines to explore topical global issues such as power and conflict, health inequalities, climate change, generative AI, social justice, global citizenship, and enterprise from different perspectives.

Global Challenge Pathways can be taken as one 15-credit module at Levels 5 and 6. For more information about our Global Challenge Pathways please visit:
https://www.keele.ac.uk/study/undergraduate/globalchallengepathways/

Modern Languages or Certificate in TESOL

Alternatively, you could choose to study modules with the University Language Centre. The Language Centre offers three pathways; The Language Specialist, The Language Taster, and The Trinity Certificate in Teaching English to Speakers of Other Language (TESOL). Language Centre modules are available separately for students at Levels 4 and 5. At Level 6 they are included within the Global Challenge Pathways.

If you choose the Language Specialist pathway, you will automatically be enrolled on a Semester 2 Modern Language module as a continuation of your language of choice as a faculty funded 'additional' module. Undertaking a Modern Languages module in Semester 2 is compulsory if you wish to continue to the Language Specialist Global Challenge Pathway the following academic year.

For more information about Languages option modules available to you please visit the following webpages.

For Level 4 and 5 students please visit: https://www.keele.ac.uk/study/languagecentre/languagecentreoptions/

For Level 6 students please visit: https://www.keele.ac.uk/students/academiclife/global-challenge-pathways/

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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 4	120	0	0
Level 5	90	30	30
Level 6	75	45	45

Module Lists

Level 4

Compulsory modules	Module Code	Credits	Period
Molecules of Life	LSC-10097	30	Semester 1
Human Physiology and Anatomy	LSC-10101	30	Semester 1-2
Practical and Academic Skills in Bioscience	LSC-10103	0	Semester 1-2
Fundamentals of Bioengineering	LSC-10113	30	Semester 1-2
Molecular Cell Biology	LSC-10066	30	Semester 2

Level 4 Module Rules

LSC-10103: Practical and Academic Skills in Bioscience is a compulsory zero-credit module. All laboratory work across this level of study will be coordinated through this module and assessed within other credit-bearing modules across the year, where appropriate. This module will also develop wider academic skills and includes additional academic support and development material to enhance your overall student experience and develop key employability skills. The module will be passed via attendance to a minimum threshold of 70% of taught laboratory sessions and successful completion of a competency skills audit. Students who fail this module will transfer to *Studies in Bioengineering*. This is not accredited by the RSB.

Level 5

Compulsory modules	**Module Code**	**Credits**	**Period**
Molecular, Cellular and Structural Immunology	LSC-20015	15	Semester 1
Applications of Molecular Biology	LSC-20131	15	Semester 1
Stem Cells and Regenerative Medicine	LSC-20149	30	Semester 1
Practical and Professional Skills in Bioscience	LSC-20127	0	Semester 1-2
Biomaterials and Tissue Engineering	LSC-20147	30	Semester 2

Optional modules	**Module Code**	**Credits**	**Period**
Flexible Work Placement (Level 5)	NAT-20011	15	Semester 1-2
Cell Signalling	LSC-20085	15	Semester 2
Current Topics in Regenerative Medicine	LSC-20141	15	Semester 2
Cell Biology for Regenerative Medicine	LSC-20145	15	Semester 2

Level 5 Module Rules

LSC-20127: Practical and Professional Skills in Bioscience is a compulsory zero-credit module. All laboratory work across this level of study will be coordinated through this module and assessed within other credit-bearing modules across the year, where appropriate. This module will also develop advanced academic skills in literature searching and analysis and includes additional career development workshops, enhancing your overall student experience and developing key employability skills. The module will be passed via attendance to a minimum threshold of 70% of taught laboratory sessions and successful completion of a competency skills audit. Students who fail this module will transfer to *Studies in Bioengineering*. This is not accredited by the RSB.

Please note: You cannot take both Flexible Work Placement (Level 5) and Flexible Work Placement (Level 6)

Level 6

Compulsory modules	**Module Code**	**Credits**	**Period**
Biomedical Engineering	LSC-30055	15	Semester 1
Research Project	LSC-30102	30	Semester 1-2
Employability and Communication Skills in Bioscience	LSC-30106	15	Semester 1-2
Current Good Manufacturing Practice (cGMP)	LSC-30112	15	Semester 2

Optional modules	Module Code	Credits	Period
Case Studies in Biotechnology	LSC-30051	15	Semester 1
Applied Regenerative Medicine	LSC-30068	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
Precision Medicine	LSC-30120	15	Semester 2
Nanomedicine	LSC-30122	15	Semester 2

Level 6 Module Rules

LSC 30102 *Research Project* cannot be condoned. Students unable to reach the 40% pass threshold for this module may be able to repeat to repeat the year (either in full or on a modular basis), or transfer to our non-accredited pathway, *Studies in Bioengineering*.

Please note: You cannot take both Flexible Work Placement (Level 5) and Flexible Work Placement (Level 6). You also cannot take both Flexible Work Placement (Level 6) and Professional Experience in Education.

Learning Outcomes

The table below sets out what students learn in the programme and the modules in which that learning takes place. Details of how learning outcomes are assessed through these modules can be found in module specifications.

Level 4

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
K1 - describe the biochemical and molecular functions of cells and extracellular mileaux.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064
K2 - understanding the gross embryological, anatomical and physiological characteristics of themain systems of the human body.	Human Physiology and Anatomy - LSC-10074

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
S1 - manage their own learning and utilise resources appropriate to the discipline to solve problems.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064, Human Physiology and Anatomy - LSC-10074, Fundamentals of Bioengineering - LSC-30112
S2 - work safely and effectively in a scientific laboratory.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064, Human Physiology and Anatomy - LSC-10074, Fundamentals of Bioengineering - LSC-30112 Practical and Academic Skills in Bioscience LSC 10103
S3 - collect, analyse and critically discuss scientific data relevant to the discipline.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064, Human Physiology and Anatomy - LSC-10074, Fundamentals of Bioengineering - LSC-30112 Practical and Academic Skills in Bioscience - LSC 10103
S4 - communicate confidently on topics related to the degree.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064, Human Physiology and Anatomy - LSC-10074, Fundamentals of Bioengineering - LSC-30112

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
E1 - Effectively participate and work as a team or professional group.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064, Human Physiology and Anatomy - LSC-10074, Fundamentals of Bioengineering - LSC-30112
E2 - Constructively use feedback and take evidence-informed decisions.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064, Human Physiology and Anatomy - LSC-10074, Fundamentals of Bioengineering - LSC-30112, Practical and Academic Skills in Bioscience - LSC 10103
E3 - Identify and manage appropriate resources to solve problems.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064, Human Physiology and Anatomy - LSC-10074, Fundamentals of Bioengineering- LSC-30112
E4 - Confidently communicate information, ideas, problems and solutions to peers or professionals of the field of practice.	Molecular Cell Biology - LSC 10066, Molecules for Life LSC-10064, Human Physiology and Anatomy - LSC-10074, Fundamentals of Bioengineering - LSC-30112 Practical and Academic Skills in Bioscience- LSC 10103

Level 5

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
K1 - describe the biochemical and molecular functions of cells and extracellular mileaux.	Stem Cells and Regenerative Medicine - PHA-20026 Cell Biology for Regenerative Medicine - PHA-20036 Biomaterials and Tissue Engineering - PHA-20024 Molecular, cellular and structural immunology - LSC-20015, Current Topics in Regenerative Medicine - PHA-20022
K2 - understanding the gross embryological, anatomical and physiological characteristics of the main systems of the human body.	Cell Biology for Regenerative Medicine - PHA-20036 Biomaterials and Tissue Engineering - PHA-20024 Current Topics in Regenerative Medicine - PHA-20022
K3 - understand the sources and features of different types of human stem cells.	Biomaterials and Tissue Engineering - PHA-20024 Cell Biology for Regenerative Medicine - PHA-20036 Current Topics in Regenerative Medicine - PHA-20022 Stem Cells and Regenerative Medicine - PHA-20026
K4 - evaluate the strategies to use stem cells as disease models and therapeutic tools.	Current Topics in Regenerative Medicine - PHA-20022 Biomaterials and Tissue Engineering - PHA-20024 Stem Cells and Regenerative Medicine - PHA-20026 Molecular, cellular and structural immunology - LSC-20015
K5 - describe the physico-chemical properties of different biomaterials and nanomaterials that support tissue/organ growth, implantation and drug delivery.	Current Topics in Regenerative Medicine - PHA-20022 Biomaterials and Tissue Engineering - PHA-20024
K6 - familiarise with the concepts of genetic and genome engineering.	Applications of molecular biology - LSC-20003, Cell Biology for Regenerative Medicine - PHA-20036 Current Topics in Regenerative Medicine - PHA-20022 Stem Cells and Regenerative Medicine - PHA-20026 Molecular, cellular and structural immunology - LSC-20015

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
S1 - manage their own learning and utilise resources appropriate to the discipline to solve problems;	Stem Cells and Regenerative Medicine - PHA-20026 Applications of molecular biology- LSC-20003, Current Topics in Regenerative Medicine - PHA-20022 Molecular, cellular and structural immunology - LSC-20015, Biomaterials and Tissue Engineering - PHA-20024, Professional Development in Bioscience - LSC-30090
S2 - work safely and effectively in a scientific laboratory;	Cell Biology for Regenerative Medicine - PHA-20036 Applications of molecular biology- LSC-20003, Biomaterials and Tissue Engineering - PHA-20024 Molecular, cellular and structural immunology - LSC-20015, Stem Cells and Regenerative Medicine - PHA-20026, Professional Development in Bioscience - LSC-30090
S3 - collect, analyse and critically discuss scientific data relevant to the discipline;	Cell Biology for Regenerative Medicine - PHA-20036 Molecular, cellular and structural immunology - LSC-20015, Biomaterials and Tissue Engineering - PHA-20024 Applications of molecular biology - LSC-20003,Stem Cells and Regenerative Medicine - PHA-20026, Professional Development in Bioscience - LSC-30090
S4 - communicate confidently on topics related to the degree;	Molecular, cellular and structural immunology - LSC-20015, Current Topics in Regenerative Medicine - PHA-20022 Cell Biology for Regenerative Medicine - PHA-20036 Biomaterials and Tissue Engineering - PHA-20024 Stem Cells and Regenerative Medicine - PHA-20026 Molecular Biotechnology - PHA-20028
S5 - understand the limits and ethical issues of the discipline and the need of code of practice;	Molecular, cellular and structural immunology - LSC-20015, Current Topics in Regenerative Medicine - PHA-20022 Applications of molecular biology- LSC-20003, Stem Cells and Regenerative Medicine - PHA-20026

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
E1 - Effectively participate and work as a team or professional group.	Current Topics in Regenerative Medicine - PHA-20022 Cell Biology for Regenerative Medicine - PHA-20036 Applications of molecular biology- LSC-20003
E2 - Constructively use feedback and take evidence-informed decisions.	Current Topics in Regenerative Medicine - PHA-20022 Applications of molecular biology- LSC-20003, Molecular, cellular and structural immunology - LSC-20015, Stem Cells and Regenerative Medicine - PHA-20026 Biomaterials and Tissue Engineering - PHA-20024
E3 - Identify and manage appropriate resources to solve problems.	Cell Biology for Regenerative Medicine - PHA-20036 Current Topics in Regenerative Medicine - PHA-20022 Molecular, cellular and structural immunology - LSC-20015
E4 - Confidently communicate information, ideas, problems and solutions to peers or professionals of the field of practice.	Molecular, cellular and structural immunology - LSC-20015 Current Topics in Regenerative Medicine - PHA-20022 Applications of molecular biology- LSC-20003, Stem Cells and Regenerative Medicine - PHA-20026 Cell Biology for Regenerative Medicine - PHA-20036 Biomaterials and Tissue Engineering - PHA-20024

Level 6

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
K3 - understand the sources and features of different types of human stem cells;	Translational Regenerative Medicine PHA-30031 Precision Medicine - PHA-30063
K4 - evaluate the strategies to use stem cells as disease models and therapeutic tools;	Precision Medicine PHA-30063 Translational Regenerative Medicine PHA-30031 Current Good Manufacturing Practice (cGMP) -LSC-30112
K5 - describe the physico-chemical properties of different biomaterials and nanomaterials that support tissue/organ growth, implantation and drug delivery;	Nanomedicine - PHA-30037 Current Good Manufacturing Practice (cGMP) -LSC-30112, Biomedical Engineering-LSC-30055
K6 - familiarise with the concepts of genetic and genome engineering;	Cancer Biology LSC-30061 Precision Medicine - PHA-30063
K7 - discuss the concept of genomic medicine;	Cancer Biology LSC-30061 Precision Medicine - PHA-30063

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
S1 - manage their own learning and utilise resources appropriate to the discipline to solve problems;	Cancer Biology LSC-30061, Research Project - LSC-30102 Translational Regenerative Medicine - PHA-30031 Precision Medicine - PHA-30063 Current Good Manufacturing Practice (cGMP) -LSC-30112 Biomedical Engineering-LSC-30055
S2 - work safely and effectively in a scientific laboratory;	Research Project - LSC-30102 Nanomedicine - PHA-30037 Precision Medicine - PHA-30063 Current Good Manufacturing Practice (cGMP) -LSC-30112, Biomedical Engineering-LSC-30055
S3 - collect, analyse and critically discuss scientific data relevant to the discipline;	Research Project - LSC-30102Precision Medicine - PHA-30063 Translational Regenerative Medicine - PHA-30031 Current Good Manufacturing Practice (cGMP) - LSC-30112, Biomedical Engineering-LSC-30055
S4 - communicate confidently on topics related to the degree;	Translational Regenerative Medicine - PHA-30031 Nanomedicine - PHA-30037 Research Project - LSC-30102, Biomedical Engineering-LSC-30055
S5 - understand the limits and ethical issues of the discipline and the need of code of practice;	Translational Regenerative Medicine - PHA-30031 Precision Medicine - PHA-30063 Current Good Manufacturing Practice (cGMP) -LSC-30112

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
E1 - Effectively participate and work as a team or professional group.	Research Project - LSC-30102Cancer Biology LSC-30061, Translational Regenerative Medicine - PHA-30031 Precision Medicine - PHA-30063
E2 - Constructively use feedback and take evidence-informed decisions.	Research Project - LSC-30102 Translational Regenerative Medicine - PHA-30031 Precision Medicine - PHA-30063 Current Good Manufacturing Practice (cGMP) -LSC-30112
E3 - Identify and manage appropriate resources to solve problems.	Nanomedicine - PHA-30037 Precision Medicine - PHA-30063 Research Project - LSC-30102 Translational Regenerative Medicine - PHA-30031 Current Good Manufacturing Practice (cGMP) -LSC-30112 Biomedical Engineering-LSC-30055
E4 - Confidently communicate information, ideas, problems and solutions to peers or professionals of the field of practice.	Cancer Biology LSC-30061, Translational Regenerative Medicine - PHA-30031 Research Project - LSC-30102 Nanomedicine - PHA-30037 Current Good Manufacturing Practice (cGMP) -LSC-30112 Biomedical Engineering-LSC-30055

9. Final and intermediate awards

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

BSc (Hons) Bioengineering (Regenerative Medicine)	360 credits	You will require at least 120 credits at levels 4, 5 and 6 You must accumulate at least 270 credits in your main subject (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 this subject. N.B. The award will be 'Studies in Bioengineering' if a pass standard is not achieved in the Level 4 Practical and Academic Skills in Bioscience, Level 5 Practical and Professional Skills in Bioscience, or in your Level 6 Research Project module. A 'Studies in Bioengineering' degree is not accredited by the Royal Society of Biology.
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 a module covering the international year in order to graduate with a named degree including the 'international year' wording. Students who do not complete, or fail the international year, will be transferred to the three-year version of the programme.

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.

10. 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:

- Unseen Exam
- Laboratory Report
- Problem Based Studies (PBL)
- Dissertation
- Presentations
- Essays

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.

11. 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)	39.3%	60.7%	0%
Year 2 (Level 5)	26.7%	71.3%	2%
Year 3 (Level 6)	33.7%	63.8%	2.5%

12. Accreditation

The programme is accredited by the Royal Society of Biology.

To be awarded Royal Society of Biology accreditation you must achieve a minimum standard of 40% in the level 6 Research Project module. Students that condone the level 6 module may still be eligible for either the award Studies in Bioengineering. Students are also required to obtain a pass mark for the Level 4 Practical and Academic Skills in Bioscience and Level 5 Practical and Professional Skills in Bioscience modules in order to remain on the accredited routes, else the award title will be Studies in Bioengineering.

13. 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'.

14. What are the typical admission requirements for the Programme?

See the relevant course page on the website for the admission requirements relevant to this programme: https://www.keele.ac.uk/study/

English for Academic Purposes

Please note: All new international students entering the university will provide a sample of Academic English during their registration Using this sample, the Language Centre may allocate you to an English language module which will become compulsory. This will replace any GCP modules. *NB:* students can take an EAP module only with the approval of the English Language Programme Director and are not able to take any other Language modules in the same academic year.

English Language Modules at Level 4:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2)
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

English Language Modules at Level 5:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2)
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

English Language Modules at Level 6:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2); ENL-90005 Advanced Business English Communication
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

Recognition of Prior Learning (RPL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here: https://www.keele.ac.uk/qa/programmesandmodules/recognitionofpriorlearning/

15. How are students supported on the programme?

The School of Life Sciences operates an open door policy. This means that you can contact any of our staff via email to request a meeting or discus any problem that you may be experiencing.

In addition to the open door policy, support for student learning on the Programme is provided in the following ways:

- **Keele Student Services.** All Keele students have access to Student Services which are focused to make sure that each student achieves the best university experience possible. From academic life to mental health, from dyslexia and disabilities to wellbeing, Student Services act as the first point of contact for each student to provide guidance, a pointer or to give a tools to get back on track with the studies. There are multiple ways to contact Student Services that can be found at https://www.keele.ac.uk/students/studentservices/.
- **Academic Mentor.** All students enrolled in the programme will have an Academic Mentor, a member of the teaching staff who will provide academic guidance and support. Students will have a number of scheduled occasions along the years to meet with the Academic Mentor and make the most out of the programme and academic resources. Within the School, there are multiple other roles (Programme Director, Year Tutor, Student Rep) and activities (Student-Staff Voice Committee) working with Academic Mentors to make sure that each student will receive pastoral and academic support.
- **Keele Email and Keele Learning Environment (KLE).** An email address will be assigned to all Keele students and it will represent the main channel of contact for all official communications by the School and first point of contact for all academics. No personal email address will be used. New students will also be granted access to the KLE platform, the virtual teaching and learning space of the University.
- **Module leaders.** The academics in charge of the modules will provide all information and supports related to the teaching and assessment strategies of the module. They will also provide general feedback on the assessments that students will undertake during the programme.

16. Learning Resources

The Bioengineering programme is a taught course and all taught components and related laboratories experiences with the exception of the research projects will be delivered in the main campus of Keele University, a 600 acre campus that has plenty of learning resources to offer and all students of the programme will have free access to them all. Research projects will be delivered across the campus, Guy Hilton Research Centre in Hartshill and the Robert Jones and Agnes Hunt Orthopaedic Hospital - Oswestry.

- **Library**

The University Library hold a large series of books and journal covering all subjects in the programme. Those resources will be available either online and in print format and accessible 24/7 during semester. This means that students will rarely have to spend money on academic books or pay to access the resources they need for their studies. A guide that provides an overview of the services is available through this web address https://sway.office.com/zk4jW8ARdl3uJ0U8 or by browsing the main University Library webpage https://www.keele.ac.uk/library/.

- **Laboratory and Research Equipment**

Keele University has multiple interdisciplinary Research Themes undertaking cutting edge research and students can take advantages from the large range of research groups and well equipped laboratories. A recent investment of £34m provided a state-of-the art teaching facility that is designed to provide a space for technical training, discussion and cutting-edge science. Students for this programme will benefit from this learning space enabling high quality training, collaboration and interdisciplinary working. Research projects will be delivered in the laboratories of the academic staffs across campus, Guy Hilton Research Centre and the Robert Jones and Agnes Hunt Orthopaedic Hospital - Oswestry.

- **IT Services**

The University provides access to all sorts of software and equipment that will be needed to students to succeed in their degree. Students will be able to loan a laptop for short periods from the library or use PC labs in various building around the University. For further information regarding IT Services (info, advice or report a problem),

please visit www.keele.ac.uk/it.

17. Other Learning Opportunities

Study abroad (semester)

Students on the programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities.

Exactly which countries are available depends on the student's choice of degree subjects. An indicative list of countries is on the website (http://www.keele.ac.uk/studyabroad/partneruniversities/); however this does not guarantee the availability of study in a specific country as this is subject to the University's application process for studying abroad.

No additional tuition fees are payable for a single semester studying abroad but students do 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 to 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.

Whilst students are studying abroad any Student Finance eligibility will continue, where applicable students may be eligible for specific travel or disability grants. Students studying in Erasmus+ destinations may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible for 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.

Study Abroad (International Year)

A summary of the International Year, which is a potential option for students after completion of year 2 (Level 5), is provided in the Annex for the International Year.

Work Placement Year

Students have the opportunity to apply directly for the 4-year 'with Work Placement Year' degree programme or to transfer onto the 4-year degree programme at the end of Year-1 and in Year-2 at the end of Semester 1. Students who are initially registered for the 4-year degree programme may transfer onto the 3-year degree programme at any point in time, prior to undertaking their year-long placement. Eligibility criteria is stated in the Annex.

Students wishing to take the work placement year should meet with the Programme Director to obtain their signature to confirm agreement before they will be allowed to commence their placement.

International students who require a Tier 4 visa must check with the Immigration Compliance Team prior to commencing any form of placement.

A summary of the Work Placement Year, which is a potential option for students after completion of year 2 (Level 5), is provided in the Annex for the Work Placement Year.

18. Additional Costs

Optional costs

There may be optional costs that students can choose to incur to enhance their learning experience. These are not required to complete the course. Details of these optional costs are outlined below to help you plan accordingly.

Activity	**Estimated Cost**
Optional costs	
Optional 3 month research experience at USM, Malaysia: covered by Turing funding.	N/A
Optional fob hire for Guy Hilton Laboratory Access (Refundable upon fob return):	£5
Replacement lab coat (if allocated one is lost):	£10
Total estimated additional costs:	**£15**

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%.

Students may also incur general expenses related to university study, such as for printing, textbooks and other materials. Students who undertake a placement may be responsible for additional costs, such as travel, accommodation, and subsistence costs. For further information, please refer to the additional costs information.

19. Quality management and enhancement

The quality and standards of learning in this programme are subject to a continuous process of monitoring, review and enhancement.

- The School Education Committee is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Revalidation process.

Student evaluation of, and feedback on, the quality of learning on every module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of annual programme review.
- Findings related to the programme from the annual National Student Survey (NSS), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.
- Feedback received from representatives of students in all three years of the programme is considered and acted on at regular meetings of the Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student's degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here:
http://www.keele.ac.uk/qa/externalexaminers/currentexternalexaminers/

20. The principles of programme design

The programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

a. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education:
http://www.qaa.ac.uk/quality-code
b. QAA Subject Benchmark Statement: Biomedical Sciences (2019) https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-biomedical-sciences.pdf?sfvrsn=2bf2c881_4
c. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations

21. Annex - International Year

BSc (Hons) Bioengineering (Regenerative Medicine) with International Year

International Year Programme

Students registered for this Single Honours programme may either be admitted for or apply to transfer during their period of study at Level 5 to the International Year option. Students accepted onto this option will have an extra year of study (the International Year) at an international partner institution after they have completed Year 2 (Level 5) 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 detail contained in this annex will pertain solely to students registered for the International Year option.

International Year Programme Aims

In addition to the programme aims specified in the main body of this document, the international year programme of study aims to provide students with:

1. Personal development as a student and a researcher with an appreciation of the international dimension of their subject
2. 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 in Semester 1 at Level 5 is normally required. Places on the International Year are then conditional on achieving an average mark of 55% across all Level 5 modules. 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 Academic Mentor, 1st and 2nd year tutors and programme director)

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

Student Support

Students will be supported whilst on the International Year via the following methods:

- Phone or Video call conversations with Study Abroad tutor, in line with recommended Academic Mentoring meeting points.
- Support from the University's Global Education Team

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete a Keele undergraduate programme 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 Bioengineering (Regenerative Medicine).
5. Demonstrate the use of critical thinking skills, augmented by creativity and curiosity, in discussing the application of their International Year studies to Bioengineering (Regenerative Medicine).

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.

22. Annex - Work Placement Year

BSc (Hons) Bioengineering (Regenerative Medicine) with Work Placement Year

Work Placement Year summary

Students registered for this programme may either be admitted for or apply to transfer during their studies to the 'with Work Placement Year' option. 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 detail contained in this annex will pertain solely to students registered for the Work Placement Year option.

Work Placement Year Programme Aims

In addition to the programme aims specified in the main body of this document, the Work Placement Year aims to provide students with:

- The Work Placement Year for the BRM undergraduate students will provide a graduate-level work experience in an academic laboratory, industry or research institution for an extended period of time.
- Students will have the opportunity to develop skills and sector knowledge relevant to their programme of study as well as the professional attitude that is needed in the work environment.

Entry Requirements for the Work Placement Year

Admission to the Work Placement Year is subject to successful application, interview and references from appropriate staff. Students have the opportunity to apply directly for the 4-year 'with work placement year' degree programme, or to transfer onto the 4-year programme at the end of Year-1 and in Year-2 at the end of Semester 1. Students who are initially registered for the 4-year degree programme may transfer onto the 3-year degree programme at any point in time, prior to undertaking the year-long work placement. Students who fail to pass the work placement year, and those who fail to meet the minimum requirements of the work placement year module, (* or equivalent, work placement), will be automatically transferred onto the 3-year degree programme.

* We recommend where possible students undertake a placement of between 9 - 12 months on a full-time basis to maximize academic and personal growth. However, the Work Placement Year mandates a minimum of 24 weeks in duration, ideally on a full-time basis, but no less than 21 hours per week. This enables those undertaking an unpaid placement to work on a part-time basis alongside.

The criteria to be applied are:

- A good University attendance record and be in 'good academic standing'.
- Academic Performance (an average of 50% across all modules in Semester 1 at Level 5 is normally required. Places on the Work Placement Year are then conditional on achieving an average mark of 50% across all Level 5 modules. Students with up to 15 credits of re-assessment who meet the 50% requirement may progress to the Work Placement Year. Where no Semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are taken into account)
- Students undertaking work placements will be expected to complete a Health and Safety checklist prior to commencing their work experience and will be required to satisfy the Health and Safety regulations of the company or organisation at which they are based.
- *(International students only)* Due to visa requirements, it is not possible for international students who require a Tier 4 Visa to apply for direct entry onto the 4-year with Work Placement Year degree programme. Students wishing to transfer onto this programme should discuss this with student support, the academic tutor for the work placement year, and the Programme Lead. Students should be aware that there are visa implications for this transfer, and it is the student's responsibility to complete any and all necessary processes to be eligible for this programme. 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

Students will be supported whilst on the Work Placement Year via the following methods:

- Regular contact between the student and a named member of staff who will be assigned to the student as their University supervisor. The University supervisor will be in regular contact with the student throughout the year, and be on hand to provide advice (pastoral or academic) and liaise with the Placement supervisor on the student's behalf if required.
- Two formal contacts with the student during the placement year: the University supervisor will visit the student in the placement organization at around 5 weeks after the placement has commenced, and then visit again (or conduct a telephone/video call tutorial) at around 15 weeks into the placement.
- Weekly supervision sessions will take place with the placement supervisor (or his/her nominee) throughout the duration of the placement.

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete the 'with Work Placement Year' option will be able to:

1. Understand how BRM-related academic studies are reflected into the research, industrial or professional environment.
2. Apply their knowledge and practical skills for an extended period of time.
3. Improve competences in documenting results and appreciate their importance in a research work environment.
4. Expand their written and oral skills.
5. Appreciate the importance of working effectively, reliably, honestly, diplomatically as an individual or as part of a team.
6. Comprehend and consistently comply with the concepts of occupational health, safety requirements and procedures and employee welfare.

These learning outcomes will be assessed through the non-credit bearing Work Placement Year module (NAT-30010).

Regulations

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

- Students undertaking the Work Placement Year must successfully complete the zero-credit rated 'Professional Placement In Bioengineering' module (NAT-30010)
- In order to ensure a high quality placement experience, each placement agency will sign up to a placement contract (analogous to a service level agreement).
- Once a student has been accepted by a placement organisation, the student will make a pre-placement visit and a member of staff identified within the placement contract will be assigned as the placement supervisor. The placement supervisor will be responsible for ensuring that the placement experience meets the agreed contract agreed with the University.
- The placement student will also sign up an agreement outlining his/her responsibilities in relation to the requirements of each organisation.

Students will be expected to behave professionally in terms of:

(i) conforming to the work practices of the organisation; and

(ii) remembering that they are representatives of the University and their actions will reflect on the School and have an impact on that organisation's willingness (or otherwise) to remain engaged with the placement.

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

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 some organisations, such as charities, may not have any extra money available. Students should budget with the assumption that their 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. Students are required to confirm eligibility with their 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 they are not contravening their visa requirements.

23. Annex - Programme-specific regulations

Programme Regulations: BSc (Hons) Bioengineering (Regenerative Medicine)

Final Award and Award Titles	BSc (Hons) Bioengineering (Regenerative Medicine) BSc (Hons) Bioengineering (Regenerative Medicine) with International Year BSc (Hons) Bioengineering (Regenerative Medicine) with Work Placement Year
Intermediate Award(s)	Diploma in Higher Education Certificate in Higher Education
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:

Attendance

Attendance at tutorials, seminars, workshops and laboratory sessions on this programme is compulsory. Failure to attend a class without good cause will result in an informal warning. Failure to attend any subsequent classes without good cause will lead to the issuing of a formal University warning in accordance with Regulation B8 and could result in the requirement to withdraw from the university.

Additional requirement 2: Self-Certification

Self-certification of illness as a reason for absence from compulsory classes will be accepted for no more than two periods of absence, each covering no more than 7 days, per semester. Any subsequent absence for reasons of illness must be accompanied by a doctor's note.

Additional requirement 3: Laboratory and tutorial classes

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 willful 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.

Additional requirement 4: Health and Safety

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

3.1 A student who has completed a semester abroad will not normally be eligible to transfer onto the International Year option.

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[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: 20 March 2026

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1.1	2025/26	ABIGAIL ROBERTS	07 July 2025	Compulsory module changes: LSC-10074 replaced with LSC-10101; LSC-20107 replaced with LSC-20127.
1	2025/26	ABIGAIL ROBERTS	07 May 2025	
1	2024/25	GIANPIERO DI LEVA	03 June 2024	
2	2023/24	GIANPIERO DI LEVA		No revision submitted
1	2023/24	GIANPIERO DI LEVA	22 March 2023	
1	2022/23	GIANPIERO DI LEVA	18 February 2022	