Programme Specification

With effect from: September 2024

A programme specification is the definitive record of your programme of study at the University. It sets out the aims, learning outcomes, and indicative content of the programme. You should read this programme specification alongside the relevant module descriptors and the University's Taught Programme Academic Regulations.

This specification only applies to the delivery of the programme indicated below. The details in this specification are subject to change through the modifications or periodic review processes.

1 Programme name and award

This programme specification relates to the following award(s)
BSc (Hons) Biomedical Science **BSc (Hons) Biomedicine** **BSc (Ordinary) Biomedicine** **DipHE Biomedicine** **CertHE Biomedicine**

2 Aims of the programme

Rationale and general aims, including what is special about this programme
The BSc (Hons) Biomedical Science programme is designed for students with an interest in how the human body works in health and disease with a focus on practical skills training. The programme has been designed by research active Biomedical Science staff with input from NHS, plus industrial experts and practitioners to give an up to date, challenging, exciting, and fun programme. The University has invested in an up-to-date laboratory where you will learn the latest skills on a practical focused programme. You will gain a solid understanding of molecular, cellular, and organ-level processes underlying human health. You will also learn about pathological changes that occur in chronic and infectious diseases, plus measurements that are used for diagnosis. You will also learn some of the latest technologies being applied by biomedical scientists to improve diagnoses and treatments. This programme is new and has been developed based around the latest QAA Biomedical Science statement, Institute of Biomedical Science (IBMS) accreditation, Royal Society of Biology (RSB) accreditation, plus the latest Health and Care Professions Council (HCPC) Biomedical Scientist requirements. The programme is specifically designed for those wishing to build a career in biomedical science and is suitable for anyone with a broader interest in human biology, who wishes to build a career in any related bioscience area. The skills learned apply to many possible career paths and after completion of the programme allows graduates to build careers in scientific research, NHS

laboratories, clinical trials and drug development, public health and infection control, forensic science, food safety, government advisory, scientific and medical writing, teaching and many more areas. You will be taught by expert staff and also external experts to make sure you see the potential of your degree in the many areas that you could go on to work in.

Aims of the BSc (Hons) Biomedical Sciences programme are:

- To provide a comprehensive, current and relevant practical based understanding of Biomedical Science applied to human health and disease.
- To encourage all students to achieve their individual potential without impediment.
- To teach graduates the importance of continuing professional development as a fundamental attribute of lifelong learning in academic and professional life.
- To develop transferable skills that enhance employability and postgraduate education prospects.
- To ensure graduates have the problem-solving skills to apply their understanding of Biomedical Science in the contexts of biomedical research, biotechnology, diagnostics, public health, therapeutics and the wider bio-industries.
- To enable students to communicate effectively.
- To relate knowledge from the laboratory practical work undertaken to a variety of biomedical settings
- To produce graduates with an understanding of the importance of equality, diversity and inclusivity in both professional and personal settings.
- To produce graduates capable of undertaking scientific research and disseminating their results
- To deliver the programme of study by research active scientists and external experts in an inclusive and supportive learning environment with modern facilities.

The BSc (Hons) Biomedicine follows an identical programme and is a fallback award only for students not meeting the IBMS requirement that students must pass every component of every clinical module within an IBMS-accredited degree to be awarded a degree with the title 'Biomedical Science' as this is a protected title. All interim awards and Ordinary degree also used the Biomedicine title in respect of this requirement.

3 Level Learning Outcomes and Attributes and Skills or Employability Outcomes

Learning outcomes are expressed in terms of:

- Knowledge and understanding (K)
- Intellectual / cognitive / 'thinking' skills (I)
- Practical skills specific to the subject (P)
- Attributes and Skills (undergraduate) (AS) or Employability skills (postgraduate) €

We design assessment tasks to enable you to demonstrate the Level Learning Outcomes and relevant Employability Outcomes for your level of study. To a greater or lesser extent, all Level Learning Outcomes at each level of your study are embedded in the assessment task(s) at that level. This means we can take a more integrated view of your overall performance at a level.

To progress to the next level, or to receive an award, you will need to satisfy the Level

Learning Outcomes below and relevant Attributes and Skills Outcomes (UG) or Employability Outcomes (PG) and achieve credit as per the Taught Programme Academic Regulations.

Level Learning Outcomes	
Level 4: On successful completion, students will be able to demonstrate:	
K1/4	Understanding the key concepts of measurement of human disease-related changes, plus the regulatory requirements for obtaining and using human samples in Biomedical Science.
K2/4	Understanding of key concepts involved in prokaryotic and eukaryotic cell biology and life cycles, biodiversity, natural selection and the evolution of organisms.
K3/4	Understanding of the structure and function plus endocrine and neuronal control of the human body; its component parts and major systems (cardiovascular, circulatory, digestive, endocrine, haematological, immune, nervous, renal, respiratory, and urogenital); plus, an understanding of disease effects on these systems.
K4/4	Understanding of key concepts in biochemistry, genetics and molecular biology; including structure and function of biomolecules, cellular metabolism, and the structure, function and regulation of genes.
K5/4	Understanding of key concepts in microbiology; including the differences between aerobic and anaerobic microorganisms, parasitic organisms, viruses and bacteria.
K6/4	Understanding of professional skills needed to become a Biomedical Scientist.
I1/4	Use of analytical techniques appropriate to Biomedical Science data generated *in vivo*, *in vitro* and *in silico.*
I2/4	Critical evaluation of information sources relevant to biochemistry, cell biology, genetics, haematology, immunology, microbiology, molecular biology, pharmacology and physiology to assess the quality of the information.
I3/4	Effective oral and written communication of Biomedical Science results and arguments.
I4/4	How to increase your own knowledge base of Biomedical Science through the ability to access library resources, and appropriate online material and undertake simple research tasks.
P1/4	Use of core biomedical laboratory techniques to safely work with laboratory equipment and reagents.
P2/4	Use of relevant numeracy and statistical techniques to present meaningful data.
P3/4	Use of computer-based analysis such as bioinformatics in a Biomedical Science setting.
P4/4	Use of standardised methodology and quality control in the laboratory.

Level 5: On successful completion, students will be able to demonstrate:

K1/5	Critical understanding of the causes and consequences of diseases associated with abnormal immune function, and advances in immunological methods.
K2/5	Detailed knowledge of current methods of isolation, identification, characterisation, and classification of a diverse range of microorganisms associated with human disease, host-pathogen interactions at molecular, organismal and population levels, body response mechanisms, including the immune responses, and how they affect human health.
K3/5	High-level understanding of human genetics and patterns of inheritance. Outline methods of genetic testing and screening including bioinformatics. Use best practice 4apitalizeise upon patient diversity, support equality and inclusion, and acknowledge ethical and social implications of current and historic research.
K4/5	Critical understanding of current cytopathology and histopathology technologies in sample preparation and microscopic examination of cells and tissues, including their gross structure, ultrastructure and changes during disease.
K5/5	Critical understanding of different elements found in human blood, cerebrospinal fluid, saliva and urine in normal and disease states, the principles of biochemical investigation used in the diagnosis, treatment and monitoring of disease.
K6/5	Detailed knowledge of haematological disease including anaemias, haematological malignancies, haemorrhagic and thrombotic disease plus the key requirements for blood transfusion.
K7/5	Critical understanding of how to design methodology to answer biomedical questions.
K8/5	Application of professional skills to apply for employment.
I1/5	The ability to devise and perform experiments to provide new information and support innovation, evaluate experimental methods for investigation in biomedical sciences, understand and deploy controls and select appropriate statistical methods for data analysis using relevant software.
I2/5	Using the clinical disease knowledge base in aiding the diagnosis, monitoring and treatment of immunological, microbiological and other relevant disorders.
I3/5	Application of genetic screening information in the identification of patients with or at risk of disease.
I4/5	Application of pharmacological practices in the treatment of disease.
P1/5	Ability to prepare and deploy standard operating procedures, coshh forms, risk assessments and ethics applications for laboratory investigation.
P2/5	Use of immunological and microbiological techniques in the laboratory.
P3/5	Use of molecular techniques to study DNA, mRNA and proteins in disease.
P4/5	Use of clinical biochemistry techniques in the laboratory.
P5/5	Use of haematological techniques in disease and blood transfusion settings.
P6/5	Use of cytopathological and histopathological techniques in the laboratory.
P7/5	Application of laboratory and professional skills in a commercial setting.
Level 6: On successful completion, students will be able to demonstrate:	

K1/6	Detailed knowledge of key concepts of pharmacology including; pharmacodynamics, pharmacokinetics, toxicity, drug-drug interactions and clinical trials.
K2/6	Critical understanding of cancer biology, therapy plus the integration of biochemical, cytochemical and histochemical techniques in the diagnosis, monitoring and treatment of cancers.
K3/6	Critical understanding of measurements of biochemical, cytopathology, haematological, histopathology; immunological and microbiological changes in disease diagnosis plus integration of the measures into disease and therapy monitoring.
K4/6	Successfully design, complete and report on an independent research project within a Biomedical Science area. Deliver the project aims through timely delivery of strategic objectives. Record, analyse and interpret results, and disseminate the project outcomes and/or findings in a detailed and coherent way in a style appropriate to and respectful of the specified audience.
K5/6	Critical understanding of the commercialization of Biomedical related products and services.
I1/6	Solve the complex problems arising during the course of a research study and critically compare findings with expectations from previously published material.
I2/6	Plan and use a mixture of laboratory or computer-based data generation techniques to answer a specific set of aims in a Biomedical Science research project.
I3/6	Engage in group work to develop a commercially relevant Biomedical Science proposal.
I4/6	Ability to arrive at a diagnosis using a mixture of published information and case study data.
I5/6	Application of pharmacological practices in the discovery and development of treatment and monitoring of disease.
P1/6	Competence in use of multiple analytical techniques to answer a series of research questions.
P2/6	Compliance and understanding of ethical plus health and safety regulations associated with a Biomedical Science research project.
P3/6	Use of pharmacological techniques in the laboratory.
P4/6	Use of clinical biochemistry, cytopathology and histopathology techniques in the cancer biology setting.
P5/6	Use of patient data to aid diagnosis.

Attributes and Skills Outcomes (undergraduate)	
AS1	**Working Independently** - prioritising workload, anticipating and troubleshooting potential problems, and achieving this without requiring continual oversight from a supervisor or manager;
AS2	**Research & Thinking Critically** - systematic investigation of resources to identify relevant information. Critical thinking refers to a process of independent scrutiny, allowing formation of a well-reasoned opinion for application of the research to decision-making and action;

AS3	**Digital Confidence** - identifying, learning and confident adoption of digital tools, applications and software to improve existing processes, meet emerging challenges or develop new approaches;
AS4	**Adaptability** - the ability to make the most of changing circumstances and adapt to new conditions;
AS5	**Resilience** - the ability to recognise that you will be exposed to adversity but that you will be able to respond positively and ultimately adapt and grow from challenging events;
AS6	**Professional Outlook** - preparing yourself to successfully research, plan and apply for opportunities through effectively articulating your skills and attributes whilst understanding how to present yourself in professional working environments to achieve your career goals;
AS7	**Effective Communication** - the ability to work cooperatively with others to achieve a group objective and the recognition that good leadership empowers achievement of collective goals through combined efforts;
AS8	**Ethics, Diversity, Sustainability** - making a positive impact on society and the environment as a whole;
AS9	**Enterprise and Entrepreneurship** - entrepreneurship is the application of enterprise behaviours, attributes and competencies into the creation of cultural, social, or economic value. Enterprise is generating and applying ideas that are practical when undertaking a new venture or project.

4 Learning outcomes for subsidiary awards

Guidance	
The assessment strategy is designed so that each of these outcomes is addressed by more than one module at Level 4.	**Learning outcomes for the award of <u>Certificate of Higher Education in Biomedicine</u>:** On successful completion of 120 credits at Level 4, students will have demonstrated an ability to: i) Understanding the key concepts of measurement of human disease-related changes, plus the regulatory requirements for obtaining and using human samples in Biomedical Science. ii) Understanding of key concepts involved in prokaryotic and eukaryotic cell biology and life cycles, biodiversity, natural selection and the evolution of organisms. iii) Understanding of the structure and function plus endocrine and neuronal control of the human body; its component parts and major systems (cardiovascular, circulatory, digestive, endocrine, haematological, immune, nervous, renal, respiratory, and urogenital); plus, an understanding of disease effects on these systems. iv) Understanding of key concepts in biochemistry, genetics and molecular biology; including structure and function of biomolecules, cellular metabolism, and the structure, function and regulation of genes. v) Understanding of key concepts in microbiology; including the differences between aerobic and anaerobic microorganisms, parasitic organisms, viruses and bacteria. vi) Understanding of professional skills needed to become a Biomedical Scientist. vii) Use of analytical techniques appropriate to Biomedical Science data generated *in vivo*, *in vitro* and *in silico.*

	viii) Critical evaluation of information sources relevant to biochemistry, cell biology, genetics, haematology, immunology, microbiology, molecular biology, pharmacology and physiology to assess the quality of the information. ix) Effective oral and written communication of Biomedical Science results and arguments. x) How to increase your own knowledge base of Biomedical Science through the ability to access library resources, and appropriate online material and undertake simple research tasks. xi) Use of core biomedical laboratory techniques to safely work with laboratory equipment and reagents. xii) Use of relevant numeracy and statistical techniques to present meaningful data. xiii) Use of computer-based analysis such as bioinformatics in a Biomedical Science setting. xiv) Use of standardised methodology and quality control in the laboratory. and will have had specific opportunities to display transferable skills relevant to employment related to the discipline. **Learning outcomes for the award of <u>Diploma of Higher Education in Biomedicine</u>:** On successful completion of 240 credits, including 120 at Level 5, students will have demonstrated, **in addition to the outcomes for a Certificate**: i) Critical understanding of the causes and consequences of diseases associated with abnormal immune function, and advances in immunological methods. ii) Detailed knowledge of current methods of isolation, identification, characterisation, and classification of a diverse range of microorganisms associated with human disease, host-pathogen interactions at molecular, organismal and population levels, body response mechanisms, including the immune responses, and how they affect human health. iii) High-level understanding of human genetics and patterns of inheritance. Outline methods of genetic testing and screening including bioinformatics. Use best practice to capitalise upon patient diversity, support equality and inclusion, and acknowledge ethical and social implications of current and historic research. iv) Critical understanding of current cytopathology and histopathology technologies in sample preparation and microscopic examination of cells and tissues, including their gross structure, ultrastructure and changes during disease. v) Critical understanding of different elements found in human blood, cerebrospinal fluid, saliva and urine in normal and disease states, the principles of biochemical investigation used in the diagnosis, treatment and monitoring of disease. vi) Detailed knowledge of haematological disease including anaemias, haematological malignancies, haemorrhagic and thrombotic disease plus the key requirements for blood transfusion.
The assessment strategy is designed so that each of these outcomes is addressed by more than one module over Levels 4 & 5.	

	vii) Critical understanding of how to design methodology to answer biomedical questions. viii) application of professional skills to apply for employment. ix) The ability to devise and perform experiments to provide new information and support innovation, evaluate experimental methods for investigation in biomedical sciences, understand and deploy controls and select appropriate statistical methods for data analysis using relevant software. x) Using the clinical disease knowledge base in aiding the diagnosis, monitoring and treatment of immunological, microbiological and other relevant disorders. xi) Application of genetic screening information in the identification of patients with or at risk of disease. xii) Application of pharmacological practices in the treatment of disease. xiii) Ability to prepare and deploy standard operating procedures, coshh forms, risk assessments and ethics applications for laboratory investigation. xiv) Use of immunological and microbiological techniques in the laboratory. xv) Use of molecular techniques to study DNA, mRNA and proteins in disease. xvi) Use of clinical biochemistry techniques in the laboratory. xvii) Use of haematological techniques in disease and blood transfusion settings. xviii) Use of cytopathological and histopathological techniques in the laboratory. xix) Application of laboratory and professional skills in a commercial setting. and will have had the opportunity to develop transferable skills relevant to employment related to the discipline including successful completion of at least one professional placement or school-based training component. **Learning outcomes for the award of an <u>Ordinary Degree in Biomedicine</u>:** On successful completion of 300 credits, including 60 at Level 6, students will have demonstrated at least 50% of the following skills, **in addition to the outcomes for a Diploma:** i) Detailed knowledge of key concepts of pharmacology including; pharmacodynamics, pharmacokinetics, toxicity, drug-drug interactions and clinical trials. ii) Critical understanding of cancer biology, therapy plus the integration of biochemical, cytochemical and histochemical techniques in the diagnosis, monitoring and treatment of cancers. iii) Critical understanding of measurements of biochemical, cytopathology, haematological, histopathology; immunological and microbiological changes in disease diagnosis plus integration of the measures into disease and therapy monitoring. iv) Design, complete and report on an independent research project within a Biomedical Science area. Deliver the project aims through timely delivery of strategic objectives. Record,
The assessment strategy is designed so that each of these outcomes is addressed by more than one module over Levels 4, 5 & 6.	

	analyse and interpret results, and disseminate the project outcomes and/or findings in a detailed and coherent way in a style appropriate to and respectful of the specified audience. v) Critical understanding of the commercialization of Biomedical related products and services. vi) Solve the complex problems arising during the course of a research study and critically compare findings with expectations from previously published material. vii) Plan and use a mixture of laboratory or computer-based data generation techniques to answer a specific set of aims in a Biomedical Science research project. viii) Engage in group work to develop a commercially relevant Biomedical Science proposal. ix) Ability to arrive at a diagnosis using a mixture of published information and case study data. x) Application of pharmacological practices in the discovery and development of treatment and monitoring of disease. xi) Competence in use of multiple analytical techniques to answer a series of research questions. xii) Compliance and understanding of ethical plus health and safety regulations associated with a Biomedical Science research project. xiii) Use of pharmacological techniques in the laboratory. xiv) Use of clinical biochemistry, cytopathology and histopathology techniques in the cancer biology setting. xv) Use of patient data to aid diagnosis. and will have had the opportunity to develop transferable skills relevant to employment related to the discipline including successful completion of two professional placements or school-based training placements.

5 External Benchmarks

Statement of congruence with the relevant external benchmarks
The QAA subject benchmark for Biomedical Science (2023) has been used alongside the latest Institute of Biomedical Science (IBMS) QAA mapping documents, which have been mapped to each module. The programme has also been mapped to the Royal Society of Biology's Accreditation requirements and the Health & Care Professions Council Standards of proficiency - Biomedical scientists (2023). (See mapping documents for details)

6 Indicative Content

Summary of content by theme

Level 4 provides you with the foundation in biomedical science areas that underpin the subsequent teaching in Levels 5 and 6. You will be taught the core skills for working in the laboratory, professional values, how to research and analyse data plus how to effectively communicate your knowledge. The use of bioinformatics and artificial intelligence (AI) will also be introduced at this level. The key areas of anatomy, biochemistry, cell biology, genetics, haematology, immunology, microbiology, molecular biology, pharmacology, and physiology will be covered at this level. The core clinical areas covered in Levels 5 and 6 will all be introduced in the Level 4 teaching. You will also undertake a professional challenge alongside students from other disciplines.

Level 5 provides more advanced lab training with an emphasis on how you would set up procedures in a professional setting. Quality management will be introduced, and you will also be allocated a supervisor in preparation for the Level 6 Research Project module. You will also be taught about ethics and safety regulations [including Risk Assessments (RA), Control of Substances Hazardous to Health (COSHH), plus Standard Operating Procedure (SOP)], and must complete assessments of ethics plus safety relevant to your allocated research project. For this teaching a standard ethics questionnaire will be employed and any projects requiring a more detailed application will be put through the University ethics procedures. You will continue to build upon your knowledge and will carry out work-based learning in either the biomedical employer-led challenge or a placement setting. Core clinical areas required by the Institute of Biomedical Science are taught in modules covering Clinical Biochemistry, Clinical Genetics, Clinical Immunology, Cytopathology, Haematology and Transfusion Science, Histopathology, Medical Microbiology and Near Patient Testing. Bioinformatics and systems biology areas will also be expanded in these modules. External experts will be brought in to cover specific clinical specialisms and give you insight into the use of these in a clinical setting.

Level 6 completes the core clinical areas required by the Institute of Biomedical Science in a module covering extra Cellular Pathology and Clinical Biochemistry in a Cancer Biology module. There is also a Pharmacology module to cover the key areas of drug action and discovery. You will also undertake a problem-based learning module to bring together the knowledge gained in all levels to help solve complex diagnostic problems in a series of case studies. You will undertake an individual research project, using the laboratory skills covered in Levels 4 and 5 whilst adhering to the requirements of ethics, Risk Assessments, COSHH requirements and Standard Operating Procedures relevant to the research. As part of a team, you will carry out a group enterprise activity to look at the commercialisation of a research idea and present the idea in a “Dragons Den” style assessment.

7 Programme Structure

Programme Structure – BSc (Hons) Biomedical Science/ BSc (Hons) Biomedicine	
Duration	3 years full-time

Total credit rating	360 (180 ECTS)

Level 4 – With effect from: September 2024

Core: You are required to take the following modules. Modules containing Integrated Assessment are asterisked.

Module Code	Module Title	Semester	Credits
BIO4005*	Biomedical Science Skills	1	15
BIO4025*	Cell Biology	1	15
BIO4063*	Systems Physiology	1	30
BIO4035*	Molecular Biochemistry	2	15
BIO4015*	Professional Skills	2	15
BIO4053*	Microbiology & Genetics	2	30

Level 5 – With effect from: September 2025

Between Levels 5 and 6, a one-year study abroad option may be available.

Core: You are required to take the following modules

Module Code	Module Title	Semester	Credits
BIO5003	Professional Biomedical Practice	1 & 2	30
BIO5005*	Clinical Immunology	1	15
BIO5015*	Clinical Microbiology	1	15
BIO5035	Haematology & Transfusion Science	1	15
BIO5025*	Molecular Diagnostics	2	15
BIO5055*	Clinical Biochemistry	2	15
BIO5065*	Cyto & Histopathology	2	15

Level 6 – With effect from: September 2026

Core: You are required to take the following modules

Module Code	Module Title	Semester	Credits
BIO6145	Research Project	1 & 2	45
BIO6005*	Cancer Biology	1	15
BIO6035*	Pharmacology	1	15

BIO6025	Bioentrepreneurship	2	15
BIO6033	Integrated Pathobiology	2	30

8 Pre-requisites

Modules students must study and achieve credit for before enrolling on a module at a higher level, or attaining their final programme award
All Level 5 modules are exempt from the University's regulations for Marginal Failure (condonement), for the BSc (Hons) Biomedical Science to satisfy Professional, Regulatory and Statutory Body requirements. Students MUST also pass all module assessment components of these modules. Where there is condonement of marginal failure overall in a module at Level 5 within the scope of the University's regulations for marginal failure, or if there is failure of components within modules that have been passed overall at Levels 5 and/or 6, students will be transferred to one of the Biomedicine fallback awards. Students will be made an award indicated by the number of credits they have achieved as set out in section 11.

9 Learning, Teaching and Assessment

The University's Learning, Teaching and Academic Experience Strategy informs the design of your programme. You can find more information about learning, teaching and assessment for your programme (including information on Integrated Assessment) within the relevant Assessment Handbooks.

The programme is taught and assessed entirely in English.

10 Entry requirements

Do the University's standard entry requirements apply (as outlined within the University's Admissions Policy)?	Standard entry and selection procedures will apply as set out in the Admissions policy, with the following additions:

Detail of any deviation from (or within) and/or addition to the University's standard entry requirements (if applicable), e.g. English Language and/or English Literature requirement	GCSE English Language, Maths and Science at grade requirements C or 4 or higher Plus, one of: A Level in Biology or Chemistry at grade B or higher. BTEC Extended Diploma in Applied Science, Diploma, Subsidiary Diploma or Extended Certificate in Applied Science with at least one Distinction grade accepted in combination with other qualifications. Access course either in a science subject or a wider health related subject if it includes a minimum of 12 credits at Distinction grade in Biology or Chemistry. International Baccalaureate (IB) – standard tariff but with a minimum of H6 in Biology or Chemistry. Students must be capable of meeting English Language Requirements (IELTS of 7.0 with no lower score than 6.5) at point of graduation RPL/RPEL The University's Policy on Recognition of Prior Learning Guidelines and Procedures will apply as follows: Level 5 entry (available from September 2025). Direct entry onto level 5 will be available for students that have completed and passed a level 4 IBMS accredited BSc (Hons) Biomedical Science course or equivalent, at another institution. Applicants must also meet all academic and professional requirements detailed above. To grant entry module and level learning outcomes will be compared between both institutions to ensure that these have been met.

11 Progression, classification and award requirements

Details of requirements for student progression between levels and receipt of the award(s) (A certain level of attainment which must be achieved in a specific module; any modules exempted from condonement, any deviation from the standard institutional stipulations for award classification, e.g. exclusion of Level 4 module marks from Foundation Degree classification)
BSc (Hons) Biomedical Science, Progression from Level 4 to Level 5 requires passes in all 120 credits of Level 4 modules. Marginal failure (condonement) is allowed under the University Taught Programme Academic Regulations, see section Programme Regulations for Taught Undergraduate Degrees. For completion of levels 5 and 6, students must pass all assessment components of all modules at level 5 and 6 - marginal failure (Condonement) is not permitted. **Fallback Awards** If students do not achieve pass marks in all assessments at level 5 or 6, after all resit opportunities have been exhausted, they will be transferred to a fallback award. These comprise the following: BSc (Hons) Biomedicine (360 credits) BSc (Ordinary) Biomedicine (300 credits) DipHE Biomedicine (240 credits) CertHE Biomedicine (120 credits) **BSc (Hons) Biomedicine** requires passes in all 120 credits of Level 6 modules. Compensation within modules is permitted. Marginal failure (condonement) is allowed for level 5 modules only, under the University Taught Programme Academic Regulations, see section Programme Regulations for Taught Undergraduate Degrees. **BSc (Ordinary) Biomedicine** requires passes in 60 credits of Level 6 modules. Compensation within modules is permitted. Marginal failure (condonement) is allowed for level 5 modules only, under the University Taught Programme Academic Regulations, see section Programme Regulations for Taught Undergraduate Degrees. **Diploma of Higher Education in Biomedicine** requires passes in all 120 credits of Level 5 modules. Compensation within modules is permitted. Marginal failure (condonement) is allowed under the University Taught Programme Academic Regulations, see section Programme Regulations for Taught Undergraduate Degrees. **Certificate of Higher Education in Biomedicine** requires passes in all 120 credits of Level 4 modules. Compensation within modules is permitted. Marginal failure (condonement) is allowed under the University Taught Programme Academic Regulations, see section Programme Regulations for Taught Undergraduate Degrees. The following regulations apply, together with the General Academic Regulations: • Programme Regulations for Taught Undergraduate Degrees • Additional Regulations for the Bachelor of Science Degree in Biomedical Science (NB: Programme regulations will be updated for September 2024 start)

12 Additional support needs

Students with disabilities or other support needs are welcome and are expected to be able to participate fully in this programme. Arrangements will be made, via the normal University support systems, to accommodate students with additional support needs wherever possible, with reasonable adjustments made to accommodate individual needs.

Programme-specific requirements / unavoidable restrictions on participation in the programme
The programme involves participation in Laboratory practical teaching and assessment which is governed by Health & Safety Executive legal requirements and students will need to be able to comply with the appropriate Laboratory Health and Safety rules to participate in the programme.

13 Technical Information

Awarding Body / Institution	Leeds Trinity University
Teaching institution	
Parent Faculty	Faculty of Health, Wellness and Life Sciences
Parent School	School of Health and Life Sciences
Professional accreditation body	Institute of Biomedical Science
Final award	BSc (Hons)
Title of programme(s)	Biomedical Science
Subsidiary (fallback) award(s)	BSc (Hons) Biomedicine BSc (Ordinary) Biomedicine DipHE Biomedicine CertHE Biomedicine
Honours type	Single
Duration and mode(s) of study	3 years Full-time
Month/year of approval of programme	
Periodic review due date	
HECoS subject code(s)	100265 Biomedical Sciences (100%)
UCAS course code(s)	B900

SITS route codes	Source this from Student Administration
Delivery venue(s)	Horsforth Campus…….Yes (please indicate) City Campus……..No (please indicate) Partner Institutions (please specify which partners, where relevant) N/A

14 **Level Learning Outcomes and Employability Outcomes**

The grids below demonstrate where Level Learning Outcomes and Attributes and Skills Outcomes or Employability Outcomes are assessed at module level and ensure that students are assessed in all Level Learning Outcomes at each level of their study. Students might not be assessed in all Attributes and Skills Outcomes at each level of study. However, all Attributes and Skills/Employability Outcomes will have been assessed by the end of the programme.

Level 4	**Assessed level learning outcomes**														**Skills development**								
Adjust LO codes as necessary. ↓	**K1**	**K2**	**K3**	**K4**	**K5**	**K6**	**I1**	**I2**	**I3**	**I4**	**P1**	**P2**	**P3**	**P4**	**AS1**	**AS2**	**AS3**	**AS4**	**AS5**	**AS6**	**AS7**	**AS8**	**AS9**
Lighter or hatched shading indicates modules that are not core, ie. not all students on this programme will undertake these.	Biomedical Measurement	Cellular Systems	Core Body Systems	Molecular & Genetic systems	Microbiological Systems	Professional Skills	Analytical techniques	Biological information evaluation	Communication of results	Increasing knowledge base	Core Biomedical Lab techniques	Numeracy and statistical data	Bioinformatic computer techniques	Lab standards and quality	Working Independently	Research & Thinking Critically	Digital Confidence	Adaptability	Resilience	Professional Outlook	Effective Communication	Ethics, Diversity, Sustainability	Enterprise and Entrepreneurship
BIO4005 Biomedical Science Skills	■						■	■	■	■	■	■		■	■	■	■				■		
BIO4025 Cell Biology		■					■	■	■	■	■	■		■	■	■							
BIO4063 Systems Physiology			■				■	■	■	■	■	■		■	■	■							
BIO4035 Molecular Biochemistry				■			■	■	■	■	■	■	■	■	■	■	■						
BIO4015 Professional Skills						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
BIO4053 Microbiology & Genetics					■		■	■	■	■	■	■		■	■	■							

Level 5	Assessed level learning outcomes																			Skills development									
Adjust LO codes as necessary. ↓	K1	K2	K3	K4	K5	K6	K7	K8	I1	I2	I3	I4	P1	P2	P3	P4	P5	P6	P7	AS1	AS2	AS3	AS4	AS5	AS6	AS7		AS8	AS9
Lighter or hatched shading indicates modules that are not core, ie. not all students on this programme will undertake these.	Immunological disorders	Microorganism characterisation	Genetic testing and Bioinformatics	Cytopathology and Histopathology	Clinical Biochemistry	Haematological disorders	Research design	Professional Skills for Employment	Experimental analysis	Using disease knowledge base	Application of genetic screening	Pharmacological treatment	SOPs, COSHH, RA and ethics	Immunological and microbiological lab	Molecular diagnostic lab techniques	Biochemical and pathology labs	Haematological Techniques	Cytological and Histological techniques	Commercial Biomedical Techniques	Working Independently	Research & Thinking Critically	Digital Confidence	Adaptability	Resilience	Professional Outlook	Effective Communication		Ethics, Diversity, Sustainability	Enterprise and Entrepreneurship
BIO5003 Professional Biomedical Practice							■	■	■	■			■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■
BIO5005 Clinical Immunology	■								■	■		■		■						■	■	■							
BIO5015 Clinical Microbiology		■							■	■		■		■						■	■	■							
BIO5035 Haematology & Transfusion Science						■			■	■		■					■			■	■	■							
BIO5025 Molecular Diagnostics			■						■	■	■				■					■	■	■	■						
BIO5055 Clinical Biochemistry					■				■	■						■				■	■	■							
BIO5065 Cyto & Histopathology				■					■	■								■		■	■								

Level 6		**Assessed level learning outcomes**															**Skills development**								
Adjust LO codes as necessary. ↓	**K1**	**K2**	**K3**	**K4**	**K5**	**I1**	**I2**	**I3**	**I4**	**I5**	**P1**	**P2**	**P3**	**P4**	**P5**		**AS1**	**AS2**	**AS3**	**AS4**	**AS5**	**AS6**	**AS7**	**AS8**	**AS9**
Lighter or hatched shading indicates modules that are not core, ie. not all students on this programme will undertake these.	Pharmacology	Cancer Biology	Integration of lab information	Research design	Biomedical Commercialisation	Complex problem solving	Research project planning	Group Enterprise idea	Diagnosis based on results	Pharmacological application	Multiple research techniques	Ethical and safety compliance	Pharmacological techniques	Cancer Biology Techniques	Using patient data for diagnosis		Working Independently	Research & Thinking Critically	Digital Confidence	Adaptability	Resilience	Professional Outlook	Effective Communication	Ethics, Diversity, Sustainability	Enterprise and Entrepreneurship
BIO6145 Research Project																									
BIO6005 Cancer Biology																									
BIO6035 Pharmacology																									
BIO6025 Bioentrepreneurship																									
BIO6033 Integrated Pathobiology																									