

**Programme Specification**

**Title of Course: BSc (Hons) Biological Sciences (Genetics and Molecular Biology)**

**BSc (Hons) Biological Sciences (Human Biology)**

**BSc (Hons) Biological Sciences (Medical Biology)**

**BSc (Hons) Biological Sciences (Genetics and Molecular Biology with Placement)**

**BSc (Hons) Biological Sciences (Human Biology with Placement)**

**BSc (Hons) Biological Sciences (Medical Biology with Placement)**

**BSc (Hons) Biological Sciences (Genetics and Molecular Biology with International Exchange)**

**BSc (Hons) Biological Sciences (Human Biology with International Exchange)**

**BSc (Hons) Biological Sciences (Medical Biology with International Exchange)**

**Date Specification Produced: July 2012**

**Date Specification Last Revised: May 2021**

This Programme Specification is designed for prospective students, current students, academic staff and potential employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the teaching, learning and assessment methods, learning outcomes and content of each module can be found in the Course Handbook and Module Descriptors.**SECTION 1: GENERAL INFORMATION**

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| **Title:** | BSc (Hons) Biological Sciences **(Genetics and Molecular Biology; or Human Biology; or Medical Biology)** |
| **Awarding Institution:** | Kingston University |
| **Teaching Institution:** | Kingston University |
| **Location:** | Penrhyn Road Campus |
| **Programme Accredited by:** | Royal Society of Biology |

**SECTION2: THE PROGRAMME**

1. **Programme Introduction**

The quote “Science is a way of thinking much more than it is a body of knowledge” is attributable to Carl Sagan, a notable scientist and science communicator in the 1970’s. His words remind us that our approach is as important as our knowledge for a meaningful interaction with any scientific discipline.

The Biological Sciences programme is renowned for academic excellence and intellectual rigour and have been designed so that students achieve essential core knowledge underpinning the biological sciences at level 4 that act as the foundations for deeper and broader knowledge acquisition and application in levels 5 and 6. The programme (only) is accredited by the Royal Society of Biology, and entitles graduates to one year's membership as an Associate Member of the Royal Society of Biology (AMRSB).

The routes available through the programme are environmental biology, human biology, medical biology, and genetics and molecular biology that students select according to their interests. The routes share a level 4 programme of modules that provide students with a solid platform which prepares them for broader and deeper study in level 5; such a broad-based level 4 programme provides a measure of flexibility between courses during or at the end of this year. A sustained piece of research work in their specialism is a core element of the final year for all students and as well as being in a subject specific area encompasses many of the transferable skills identified by student during the previous years of study. A number of routes provide the opportunity to choose a module option at level 5 (human biology) and level 6 (all routes with the exception of the environmental biology).

Biological Sciences (Environmental Biology)

This degree incorporates the major biological sciences disciplines with ecological and environmental issues, the latter taught within the Department of Geography, Geology and the Environment (GGE, within the Faculty of Science Engineering and Computing, SEC) and it has been specifically designed for those with an interest in biology, ecology and the environment. These combined disciplines are explored in conjunction with the principles and techniques of molecular biology that have enabled modern phylogenetics to be utilised in these areas. This degree route was closed from September 2017 and is being run out. No further students are being admitted onto this route.

Biological Sciences (Human Biology)

The Human Biology route is offered to those who are interested in the workings of the human body and mind. This is reflected in the module choices at both level 5 and 6 and provides students with the opportunity to study a broad curriculum in subjects such as physiology, psychology, metabolism and nutrition. As a result, students gain an appreciation of the complex functioning of the human body in both health and disease.

Biological Sciences (Medical Biology)

This route allows students to focus on medically related biological issues throughout the course. The level 5 consists of 4 core modules with an option available at level 6. The level 5 modules introduce infectious organisms (bacteria and viruses) and their effect on the human body, whilst at level 6 this is enlarged upon by the core parasitology module; together these modules introduce the student to globally neglected and (re)emerging infectious diseases and the challenges faced when trying to prevent and treat them. Whilst similar in nature to the biomedical science degree it has been designed to offer an alternative for those interested in a medical-biology related career other than as an accredited Biomedical Scientist.

Biological Sciences (Genetics and Molecular Biology)

This route has been designed for those who wish to concentrate upon evolution, genetics and molecular biology in their studies. It focuses on molecular evolution, the structure and function of cells, the molecular and genetic principles that govern such functions and the analytical techniques used to study them. Level 6 builds upon earlier subject material, and examines more advanced, contemporary and applied aspects of genetics and molecular biology coupled with an opportunity to decide upon an option module.

Our graduates are recognised as not only possessing core knowledge of the subject but also the ability to apply such knowledge of their specialism in employment or into other areas for further study. They will have attained many of the broad-based transferrable skills that employers recognise as important, such as effective oral and written communication, time and task management, computer literacy, numeracy and statistical analysis of data. This is not only achieved within taught modules due to a variety of teaching/assessment styles but also in conjunction with the University Careers and Employability Office. Students who complete this accredited programme are recognised for associate membership of the Royal Society of Biology.

1. **Aims of the Programme**

The aims of BSc Biological Sciences are to:

* provide a curriculum in named routes within biological sciences supported by scholarship, staff development and a research culture to students from a wide variety of academic and social backgrounds;
* offer a variety of learning opportunities through the named routes;
* produce graduates equipped with the subject specific knowledge and skills to enable them to pursue careers in a range of disciplines within the biological sciences, or to undertake further studies;
* develop within students an ability to locate, identify and critically evaluate subject-related information;
* to enable students to collect, analyse, interpret and represent scientific data;
* equip its graduates with a range of generic intellectual and key skills relevant to their personal development, lifelong learning and future employment;
* to develop student creativity and innovation relevant to the workplace;
* provide its graduates with knowledge of safe working practices in the biological sciences.

Additionally, for students following the placement programme:

* to enable students to complete a period of work experience within an appropriate research institute, industry or laboratory, building upon their previous academic knowledge and experience
* to provide students with an insight into the role of a biological scientist by gaining first-hand experience and thus increase their awareness of careers opportunities within various industries.

1. **Intended Learning Outcomes**

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas. The programme outcomes are referenced to the QAA benchmark for biosciences (2019) and the Frameworks for HE Qualifications of UK Degree-Awarding Bodies (2014) and relate to the typical student.

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| **Programme Learning Outcomes** | | | | | |
|  | **Knowledge and Understanding**  **On completion of the course students will be able to:** |  | **Intellectual skills – able to:**  **On completion of the course students will be able to:** |  | **Subject Practical skills**  **On completion of the course students will be able to:** |
| A1 | Demonstrate knowledge and understanding of a range of topics within the biological sciences appropriate to any subject specialism | B1 | Demonstrate the ability to critically evaluate and analyse information from both primary and secondary sources, and where appropriate integrate from multiple sources | C1 | Select and use appropriate techniques used within the appropriate subject specialism |
| A2 | Awareness of and ability to apply good laboratory practice, including health and safety procedures appropriate to subject specialism | B2 | Apply subject knowledge and understanding to the solving of problems by using innovative methods | C2 | Perform practical techniques used in the biological sciences appropriate to any specialism safely whilst complying with ethical and safety issues (as appropriate) |
| A3 | Use information technology, databases and analytical tools appropriate to biological sciences | B3 | Plan, conduct and report on an individual research project | C3 | Demonstrate skills in the evaluation, interpretation and presentation of laboratory, experimental or field data |
| A4 | Understand the principles underpinning scientific research methodology including data presentation techniques | B4 | Assemble and interpret data from a variety of sources (including academic literature) to discern and establish connections | C4 | Be conversant with the requirements of facilities and procedures within the field of biological sciences |
| A5 | Recognise own academic strengths and weaknesses, reflect on performance and progress and respond to feedback | B5 | Demonstrate the ability to be an independent and autonomous learner |  |  |
| A6 | Demonstrate awareness of career opportunities within the biological sciences pathway being studied or related subject areas | B6 | Develop original ideas and communicate them well to others (in written, oral and digital form) |  |  |
|  |  | B7 | Work effectively in a team and play a full part in achieving its success |  |  |

In addition to the programme learning outcomes identified overleaf, the programme of study defined in this programme specification will allow

students to develop a range of Key Skills as follows:

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| **Key Skills** | | | | | | |
| **Self-Awareness Skills** | **Communication Skills** | **Interpersonal Skills** | **Research and information Literacy Skills** | **Numeracy Skills** | **Management & Leadership Skills** | **Creativity and Problem-Solving Skills** |
| Take responsibility for own learning and plan for and record own personal development | Express ideas clearly and unambiguously in writing and the spoken work | Work well with others in a group or team | Search for and select relevant sources of information | Collect data from primary and secondary sources and use appropriate methods to manipulate and analyse this data | Determine the scope of a task (or project) | Apply scientific and other knowledge to analyse and evaluate information and data and to find solutions to problems |
| Recognise own academic strengths and weaknesses, reflect on performance and progress and respond to feedback | Present, challenge and defend ideas and results effectively orally and in writing | Work flexibly and respond to change | Critically evaluate information and use it appropriately | Present and record data in appropriate formats | Identify resources needed to undertake the task (or project) and to schedule and manage the resources | Work with complex ideas and justify judgements made through effective use of evidence |
| Organise self effectively, agreeing and setting realistic targets, accessing support where appropriate and managing time to achieve targets | Actively listen and respond appropriately to ideas of others | Discuss and debate with others and make concession to reach agreement | Apply the ethical and legal requirements in both the access and use of information | Interpret and evaluate data to inform and justify arguments | Evidence ability to successfully complete and evaluate a task (or project), revising the plan where necessary |  |
| Work effectively with limited supervision in unfamiliar contexts |  | Give, accept and respond to constructive feedback | Accurately cite and reference information sources | Be aware of issues of selection, accuracy and uncertainty in the collection and analysis of data | Motivate and direct others to enable an effective contribution from all participants |  |
|  |  | Show sensitivity and respect for diverse values and beliefs | Use software and IT technology as appropriate |  |  |  |

1. **Entry Requirements**

From A levels: A minimum of 104/112 UCAS points depending on qualifications, to include two science A-levels or equivalent with a minimum of grade C in Biology. Additional subjects accepted include Chemistry, Physics, Maths, and Psychology. General Studies not accepted.

BTEC Extended Diploma: A minimum of 112 UCAS points from an appropriate subject

Access Diploma: Pass Science Access Course with a minimum of 60 credits; 45 from level 3 subjects allied to subject

Plus: GCSE (A\*–C or comparable numeric score under the reformed GCSE grading): minimum of five subjects including English Language, Mathematics and Double Science.

A minimum IELTS score of 6 overall with no element below 5.5 or equivalent is required for those for whom English is not their first language.

1. **Programme Structure**

This programme is offered in full-time/part-time mode and leads to the award of BSc (Hons) Biological Sciences (named route). Entry is normally at level 4 with A-level or equivalent qualifications (See section D). Transfer from a similar programme is possible at level 5 with passes in comparable level 4 modules – but is at the discretion of the course team. Intake is normally in September.

**E1. Professional and Statutory Regulatory Bodies**

It is a professional and statutory regulatory body requirement that the project (bioscience) module (LS6014) must be passed and cannot be compensated.

**E2. Work-based learning, including placement programmes**

Work placements are actively encouraged – although it is the responsibility of individual students to source and secure such placements. This is facilitated by staff in the Faculty i.e. the placement coordinators, course leaders and personal tutors. Placements and work-based learning allows students to reflect upon their own experience of working in an applied setting, to focus on aspects of this experience that they can clearly relate to theoretical concepts and to evaluate the relationship between theory and practice.

Students who are registered on the placement mode are required to undertake a period of at least 36 weeks of supervised work experience. This is assessed, and successful completion is required for the award, but the placement is not graded. If it is not possible to find a suitable placement, it will be necessary to transfer a student’s registration to the non-placement degree. The Biological Sciences, Course Leader, other members of the teaching team and the personal tutor, in collaboration with a Life Sciences’ work placement tutor and the Faculty of Science, Engineering and Computing (SEC) placement co-ordinators, facilitate and support students in identifying and applying for appropriate work placements, which are often industrial placements. This support includes assisting students with preparation of their *curriculum vitae* (CV) and personal statements and running mock interviews, which may start as early as level 4.

**E3. Outline Programme Structure**

Each level is made up of four modules each worth 30 credit points. Typically, a student must complete 120 credits at each level. All students will be provided with the University regulations and specific additions that are sometimes required for accreditation by outside bodies (e.g. professional or statutory bodies that confer professional accreditation). Full details of each module will be provided in module descriptors and student module guides.

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| **Level 4** (all core) | | | | | | | | | | | | |
| **Compulsory modules** | | | **Module code** | | **Credit**  **Value** | | **Level** | | **Teaching Block** | | |
| Genes, Cells and Tissues | | | LS4001 | | 30 | | 4 | | 1 & 2 | | |
| The Biochemical Foundations of Life | | | LS4002 | | 30 | | 4 | | 1 & 2 | | |
| Scientific and Laboratory Skills | | | LS4003 | | 30 | | 4 | | 1 & 2 | | |
| Human Physiology | | | LS4004 | | 30 | | 4 | | 1 & 2 | | |
| Progression to level 5 requires completion of the core modules.  Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Certificate of Higher Education. | | | | | | | | | | | | |
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| **Level 5 Human Biology route** | | | | | | | | | | |
| **Compulsory modules** | | **Module code** | **Credit**  **Value** | | **Level** | | **Teaching Block** | |  | |
| Research Methods and Concepts in Evolutionary Biology | | LS5004 | 30 | | 5 | | 1 & 2 | |  | |
| Proteins and Metabolism | | LS5002 | 30 | | 5 | | 1 & 2 | |  | |
| Health and Exercise Physiology | | LS5014 | 30 | | 5 | | 1 & 2 | |  | |
| **Option modules** | |  |  | |  | |  | | **Pre-requisites** | |
| Sport and Exercise Psychology | | LS5017 | 30 | | 4 | | 1 & 2 | |  | |
| Infection and Immunity | | LS5008 | 30 | | 5 | | 1 & 2 | |  | |
| Progression to level 6 in the Human Biology route requires the completion of the compulsory modules and one option module.  Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Diploma of Higher Education. | | | | | | | | | | |

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| **Level 5 Medical Biology route** | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Research Methods and Concepts in Evolutionary Biology | LS5004 | 30 | 5 | 1 & 2 |  |
| Proteins and Metabolism | LS5002 | 30 | 5 | 1 & 2 |  |
| Infection and Immunity | LS5008 | 30 | 5 | 1 & 2 |  |
| Pathobiology | LS5009 | 30 | 5 | 1 & 2 |  |
| Progression to level 6 in the Medical Biology route requires the completion of the compulsory modules.  Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Diploma of Higher Education. | | | | | |

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| **Level 5 Genetics and Molecular Biology route** | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Research Methods and Concepts in Evolutionary Biology | LS5004 | 30 | 5 | 1 & 2 |  |
| Proteins and Metabolism | LS5002 | 30 | 5 | 1 & 2 |  |
| Molecular Biology of the Cell | LS5001 | 30 | 5 | 1 & 2 |  |
| Pathobiology | LS5009 | 30 | 5 | 1 & 2 |  |
| Progression to level 6 in the Genetics and Molecular Biology route requires the completion of all compulsory modules.  Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Diploma of Higher Education. | | | | | |

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| **Level 5 ALL ROUTES Placement module for students on the placement course** | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Placement year | LS5000 | 120 | Placement year | Minimum of 36 weeks throughout the year |  |

LS5000 is a core module for students who choose the placement year.

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| **Level 6 Environmental Biology route** | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Current Concepts in Biomolecular Science | LS6002 | 30 | 6 | 1 & 2 |  |
| Project (Bioscience) \* | LS6014 | 30 | 6 | 1 & 2 |  |
| Land and Water Resources Management | GG6080 | 30 | 6 | 1 & 2 |  |
| The Challenge of Climate Change | GG6070 | 30 | 6 | 1 & 2 |  |
| Progression to level 6 in the Environmental Biology route requires the completion of all compulsory modules. | | | | | |

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| **Level 6 Human Biology route** | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Drugs, Brain and Behaviour | LS6027 | 30 | 6 | 1 & 2 |  |
| Project (Bioscience)\* | LS6014 | 30 | 6 | 1 & 2 |  |
| **Option modules** |  |  |  |  | **Pre-requisites** |
| Medical Parasitology | LS6008 | 30 | 6 | 1 & 2 | Level 5 |
| Contemporary Issues in Food and Nutrition | LS6010 | 30 | 6 | 1 & 2 | LS5002 or LS5003 or LS5007 or LS5008 |
| Extreme Environments and Ergogenic Aids | LS6018 | 30 | 6 | 1 & 2 | LS5014 |

Level 6 Human Biology requires the completion of the 2 compulsory modules and two option modules

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| **Level 6**  **Medical Biology route** | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Current Concepts in Biomolecular Science | LS6002 | 30 | 6 | 1 & 2 |  |
| Medical Parasitology | LS6008 | 30 | 6 | 1 & 2 |  |
| Project (Bioscience)\* | LS6014 | 30 | 6 | 1 &2 |  |
| **Option modules** |  |  |  |  | **Pre-requisites** |
| Chemotherapy of Infectious and Neoplastic Disease | LS6003 | 30 | 6 | 1 & 2 | LS5008 or LS5001 + LS5003 |
| Clinical Chemistry and Haematology | LS6005 | 30 | 6 | 1 & 2 | LS4001 or LS4004 |
| Clinical Immunology and Medical Microbiology | LS6006 | 30 | 6 | 1 & 2 | LS5008 |
| Level 6 Medical Biology requires the completion of the 3 compulsory modules and one option module | | | | | |
| **Level 6 Genetics and Molecular Biology route** | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Molecular Genetics and Bioinformatics | LS6001 | 30 | 6 | 1 & 2 |  |
| Current Concepts in Biomolecular Science | LS6002 | 30 | 6 | 1 & 2 |  |
| Project (Bioscience)\* | LS6014 | 30 | 6 | 1 & 2 |  |
| **Option modules** |  |  |  |  | **Pre-requisites** |
| Drugs, Brain and Behaviour | LS6027 | 30 | 6 | 1 & 2 | Level 5 |
| Medical Parasitology | LS6008 | 30 | 6 | 1 & 2 | Level 5 |
| Level 6 Genetics and Molecular Biology requires the completion of the 3 compulsory modules and one option module.  \* It is a professional and statutory regulatory body requirement that the project (bioscience) module (LS6014) must be passed and cannot be compensated | | | | | |

1. **Principles of Teaching Learning and Assessment**

Within the educational philosophy of the programme, students will meet a range of learning strategies appropriate to their learning outcomes. Combining these strategies during their course will provide students with the opportunity to develop an investigative, independent and individualised approach to learning, and lay the foundation for their future careers, further studies and/or research within continuing education.

The programme, therefore, seeks to ensure that the student learns actively and effectively, whether by more formal teacher-centred methods, group-based discussion and interaction, practical work or individual study. Throughout the degree the students will acquire and develop the range of key skills identified above.

The range of learning and teaching strategies includes

• formal lectures,

• practical classes and field work,

• demonstrations of equipment and techniques,

• seminars and workshops,

• case studies,

• group work exercises,

• tutorials and

• blended learning

Blended learning involves a combination of standard strategies mentioned above together with on-line support and guidance to aid independence and flexibility for study. Technology enhanced learning may also be used by lecturing teams to enhance student learning.

Laboratory-based practical classes/field trips are an important component of this programme, and all students will gain extensive experience of working in laboratories and/or in the field according to their module choices. In addition, members of the teaching teams within Life Sciences, Sports Science, and Nutrition maintain research activity and students benefit from encountering research informed and led teaching during their degrees.

The programme is designed for students who have studied ‘A’ Level Biology or equivalents, and strategies at level 4 are designed to ensure that all students are thoroughly grounded in the essential subject matter before progressing to level 5. Lectures and practical classes form the main approach and are supported by tutorials and guidance on independent learning. Students are also encouraged to reflect upon their learning, progress and preparation for careers in modules and discussed at regular intervals with tutors. Knowledge and understanding are developed throughout the course of the programme. All modules at levels 5 and 6 have pre-requisite modules that must have been successfully completed to ensure continuity and development of learning. Strategies at levels 5 and 6 also develop independence of learning and an increasing emphasis on critical evaluation of information. This culminates in the final year project in which the student investigates and reports on a specific area of research relevant to the programme.

In addition to formal, summative assessment, formative assessment occurs at all levels to provide feedback on student progress and facilitate learning and revision. This may take the form of informal in-class tests, peer assessment or on-line questionnaires. These do not contribute to a student’s module grade but are designed to inform students of their own progress at that specific point within a module/year of study. Assessment strategies are designed to complement the University, Faculty and School teaching and learning plans whilst meeting the aims and learning outcomes of the programme. A range of assessments is used to enable a comprehensive assessment profile of the student to be established, and to enable the effectiveness of the adopted teaching and learning strategies to be evaluated.

At the beginning of the programme, the assessments are used to test factual knowledge, understanding and recall as the students meet a wide range of new topics applicable to the biological sciences. At later stages of the programme, the students encounter problem solving and decision-making activities, and are required to exercise more independent judgement and critical evaluation. The assessments provide mechanisms to measure and test the level of achievement of the stated learning outcomes of the individual modules and of the programme as a whole, including competence in a range of key skills. The independent research project assessment involves the students using varied skills, which include the development of a research proposal, information retrieval, critical evaluation, data analysis, report writing, and presentations. This helps measure a range of key skills that are also assessed in other ways throughout the degree. The capstone project **cannot** be compensated for an award accredited by the Royal Society of Biology.

Across the levels students will be offered opportunities to reflect on their learning and achievement and in doing so help them to identify their own strengths and weaknesses and to facilitate planning for their success. Throughout the programme, emphasis is placed on developing self-awareness skills, communication skills, interpersonal skills, research and information literacy skills, numeracy skills, management and leadership skills and problem-solving skills (transferable and employability skills). Students are expected to take responsibility for articulating their progress and keeping a record of their achievements throughout their course and to discuss these at intervals with their tutor. This provides the basis for students to enhance their personal development after graduation whether these relate to further research and/or training, careers, lifelong learning or personal development goals.

1. **Support for Students and their Learning**

Students are supported by:

* A Module Leader for each module
* A Course Leader to help students understand the programme structure
* Personal Tutors to provide academic and personal support
* A placement tutor to give general advice on placements
* Technical support to advise students on IT and the use of software
* A designated programme administrator
* An induction week at the beginning of the first academic session
* Staff Student Consultative Committee
* Canvas – a versatile on-line interactive intranet and learning environment
* A substantial Study Skills Centre that provides academic skills support
* Student support facilities that provide advice on issues such as finance, regulations, legal matters, accommodation, international student support etc.
* Disabled student support
* The Students’ Union
* Careers and Employability Service

The Personal Tutor Scheme (PTS) has been designed to ease a student’s transition into Higher Education by building a rapport between themselves and academic staff as soon as possible, so personalising their experience at Kingston. The PTS aims;

* To provide appropriate academic advice and guidance to students throughout their time at Kingston by monitoring their progress and helping to identify individual needs
* To foster a close and engaged academic relationship with students and advise and refer students to other University services as appropriate
* To help to develop students’ ability to be self-reliant and self-reflective and their ability to use feedback to best advantage

At each level the expectations and responsibilities differ, with level 4 being a settling period, level 5 a time to ‘step up’ and broaden horizons whilst level 6 is about making the most of this year in terms of success and moving on. As a result, students should, where possible, be able to keep the same tutor throughout their studies and be introduced to them during induction week.

Additional support for student learning is also provided by the Faculty’s Academic Success Centre, (SASC) and the Learning Resources Centre (LRC). Members of the teaching team promote the use of SASC and the LRC in verbal and written feedback to students. SASC advises and provides guidance to students on following assignment guidelines, essay and practical writing, referencing, plagiarism, accessing appropriate material using the Internet, using electronic repositories, e-books, scientific databases and the large number of subject related e-journals. Information about SASC and the LRC is provided in course and module guides, on Canvas and via ‘My Kingston’, the student’s intranet.

1. **Ensuring and Enhancing the Quality of the Course**

The University has several methods for evaluating and improving the quality and standards of its provision. These include:

* External examiners
* Boards of study with student representation
* Annual review and development
* Periodic review undertaken at the subject level
* Student evaluation
* Moderation policies

1. **Employability Statement**

Students’ generic employability skills are developed throughout their course, both through activities that are embedded within the syllabus and from services offered by the University’s Careers and Employability Service. Whilst employability is embedded to some extent in all modules there is an emphasis on transferable skills including oral and written communication, teamwork and negotiation in at least one core 30 credit module per level. At level 4 this is in LS4003 Scientific and Laboratory Skills. At level 5 this is in bespoke Research Methods and Skills modules whilst at level 6 this can be found in LS6002 Current Concepts in Biomolecular Science. This is in addition to acquiring subject specific skills associated with each module.

All modules in the programme will support some form of employability, be it through seminars, workshops or practical sessions e.g.

* Confidence building
* Identifying competencies and Self-awareness
* Skills identification and Bringing competencies alive
* Initiative
* Communication skills & Presentation skills
* Career possibilities and choices
* Giving and receiving feedback
* Making the most of careers events and the service
* Understanding leadership skills
* Commercial and business awareness

However, some sessions are specialised and are considered co-curricular and will be introduced by the Careers and Employability Office and these include

* CV starter workshop
* Developing your CV
* E-mail etiquette and social networking
* Job searching skills
* Career choices
* Preparing an application
* Preparing for interview
* Skills application and evidencing competencies
* Perfecting presentation skills
* Developing an on-line presence

A variety of generic and Faculty specific C&E sessions will be held over the academic year and students are encouraged to engage and attend these from the start of their degree.

There are other opportunities for students to develop their employability skills during their time at KU including becoming a course representative, a role that involves interacting with course peers and communicating their views and needs to the School via the Staff Student Consultative Committee (SSCC), Boards of Study and Faculty Forum. Students may also wish to become Student Ambassadors providing invaluable help to prospective students (and staff) during Open Days and Graduation ceremonies. These opportunities give students the chance to develop communication, leadership, time-management and negotiation skills outside the lecture setting.

It is an exciting time for graduates of named routes through Biological Sciences, who are in a strong position to gain employment in a wide range of careers, reflecting the routes available to students. The Royal Society of Biology accreditation is an endorsement of this, and graduates of the accredited programme are entitled to one year's membership as an Associate Member of the Royal Society of Biology (AMRSB). In addition, Kingston University’s proven track record of entrepreneurship provides students with an insight into the possibility of technology starts ups and/or involvement in biological businesses in a variety of situations. In the past the ‘Biology Suite’ graduates jobs have included medical and veterinary product development, quality assurance and sales; product development and testing in the pharmaceutical industry; the food and brewing industry; medical laboratories in such fields as microbiology, haematology, immunology and pathology; the biotechnology industry, including genome mapping and vaccine production; environmental organisations such as consultancies, charities, local government and non-government organisations; teaching; and higher education (MSc and PhD) in the UK and abroad leading to careers in research. Some students in recent years have also progressed on to accelerated degree courses in medicine. Others have used the degree as an academic qualification to gain employment in industries unrelated to biology, such as banking, accountancy and insurance.

1. **Approved Variants from the UR**

The project (bioscience) module (LS6014) must be passed and cannot be compensated.

1. **Other sources of information that you may wish to consult**

A link to the Biosciences benchmark statement (2019) for this programme and other sources of information, are below;

Subject benchmark for Biosciences:

<https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-biosciences.pdf?sfvrsn=21f2c881_4>

Royal Society of Biology accreditation information

<https://www.rsb.org.uk/education/accreditation>

Royal Society for Biology for careers within the sector:

<https://www.rsb.org.uk/careers-and-cpd/careers>

Kingston University web pages for the subject:

[www.kingston.ac.uk/biologicalsciences](http://www.kingston.ac.uk/biologicalsciences)

KU Careers and Employability Service:

<http://www.kingston.ac.uk/careers/>

KU Entrepreneurship support for students:

<http://www.kingston.ac.uk/services-for-business/entrepreneurship/>

**Development of Programme Learning Outcomes in Modules**

This map identifies where the programme learning outcomes are assessed across the modules for this programme. It provides an aid to academic staff in understanding how individual modules contribute to the programme aims, and a means to help students monitor their own learning, personal and professional development as the programme progresses and a checklist for quality assurance purposes. Include both core and option modules.

*For Human, Medical and Genetics and Molecular Biology routes;*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Level 4** | | | | **Level 5** | | | | | | | | **Level 6** | | | | | | | | | | |
|  | **Module Code** |  | LS4001 | LS4002 | LS4003 | LS4004 | | LS5001 | LS5002 | LS5004 | LS5008 | LS5009 | LS5014 | LS5017 | LS6001 | LS6002 | LS6003 | LS6027 | LS6005 | LS6006 | LS6008 | LS6010 | LS6013 | LS6014 | LS6018 |
| **Programme Learning Outcomes** | **Knowledge & Understanding** | A1 | *Ö* | Ö | *Ö* | *Ö* | | *Ö* | Ö | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* | Ö | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* | *Ö* | Ö | *Ö* |
| A2 | *Ö* | Ö | *Ö* | *Ö* | | *Ö* | Ö | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* |  | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* | *Ö* | Ö | *Ö* |
| A3 |  |  | *Ö* |  | | *Ö* | Ö | *Ö* |  |  | *Ö* |  | *Ö* |  | *Ö* |  |  |  |  | *Ö* |  |  |  |
| A4 |  |  |  |  | |  | Ö | *Ö* |  | *Ö* |  |  | *Ö* | *Ö* |  |  |  |  | *Ö* |  | Ö | *Ö* | *Ö* |
| A5 |  |  | *Ö* |  | | *Ö* | Ö | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* | Ö | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* | Ö | *Ö* | *Ö* |
| A6 |  |  | *Ö* |  | |  |  | *Ö* |  |  |  | *Ö* |  | *Ö* |  |  |  |  |  |  | Ö | *Ö* | *Ö* |
| **Intellectual Skills** | B1 |  | Ö |  |  | | *Ö* | Ö | *Ö* |  | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* |
| B2 | *Ö* | Ö | *Ö* | *Ö* | | *Ö* | Ö |  | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* |
| B3 |  | Ö | *Ö* |  | | *Ö* |  | *Ö* |  | *Ö* | *Ö* |  | *Ö* |  |  |  |  |  |  |  |  |  |  |
| B4 |  | *Ö* | *Ö* |  | | *Ö* | *Ö* | *Ö* | *Ö* |  |  |  | *Ö* | *Ö* | *Ö* |  | *Ö* |  | *Ö* |  |  | *Ö* |  |
| B5 | *Ö* | Ö | *Ö* | *Ö* | | *Ö* |  | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* |  | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* |
| B6 | *Ö* | *Ö* | *Ö* | *Ö* | | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* |
| B7 |  |  | *Ö* |  | |  |  |  |  |  | *Ö* |  |  | *Ö* |  |  |  |  |  |  |  |  |  |
| **Practical Skills** | C1 |  |  |  |  | |  |  |  |  |  | *Ö* | *Ö* | *Ö* |  | *Ö* | *Ö* | *Ö* |  |  |  |  | *Ö* | *Ö* |
| C2 | *Ö* | Ö | *Ö* | *Ö* | | *Ö* | Ö | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* |  | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* |
| C3 |  | *Ö* | *Ö* |  | |  |  | *Ö* |  |  | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | Ö | *Ö* | *Ö* |
| C4 | *Ö* | Ö | *Ö* | *Ö* | | *Ö* | Ö | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* | *Ö* |
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*Specific module options for Environmental Biology route*

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Level 5** | | | **Level 6** | |
|  | **Module Code** |  | GG5020 | GG5120 | GG6080 | | GG6070 |
| **Programme Learning Outcomes** | **Knowledge & Understanding** | A1 | *Ö* | *Ö* | *Ö* | | *Ö* |
| A2 | *Ö* |  | *Ö* | |  |
| A3 | *Ö* | *Ö* | *Ö* | | *Ö* |
| A4 | *Ö* | *Ö* | *Ö* | | *Ö* |
| A5 | *Ö* | *Ö* | *Ö* | | *Ö* |
| A6 |  | *Ö* |  | | *Ö* |
| **Intellectual Skills** | B1 | *Ö* | *Ö* | *Ö* | | *Ö* |
| B2 | *Ö* | *Ö* | *Ö* | | *Ö* |
| B3 | *Ö* | *Ö* | *Ö* | | *Ö* |
| B4 |  |  |  | |  |
| B5 | *Ö* | *Ö* | *Ö* | | *Ö* |
| B6 |  |  | *Ö* | | *Ö* |
| B7 | *Ö* | *Ö* | *Ö* | | *Ö* |
| **Practical Skills** | C1 |  | *Ö* |  | |  |
| C2 | *Ö* | *Ö* | *Ö* | |  |
| C3 | *Ö* | *Ö* | *Ö* | | *Ö* |
| C4 |  |  | *Ö* | | *Ö* |

**BSc (Hons) Biological Sciences – named routes**

|  |  |  |  |
| --- | --- | --- | --- |
| LEVEL 4 | LEVEL 5 | **Optional**  **Placement Year**  **LS5000**  **Optional**  **Sandwich/Industrial Placement Year**  **LS5000** | LEVEL 6 |
| **All Routes**  LS4001 Genes Cells, and Tissues  LS4002 Essential Biochemistry  LS4003 Scientific and Laboratory Skills  LS4004 Human Physiology | **Biological Science (Environmental Science)**  LS5004 Research Methods & Concepts in Evolutionary Biology  LS5001 Molecular Biology of the Cell  GG5020 Land, Water and the Environment  GG5120 Principles of Ecology | **Biological Science (Environmental Science)**  LS6014 Project (Biological sciences)  LS6002 Current Concepts in Biomolecular Science  GG6080 Land and Water Resources Management  GG6070 The Challenge of Climate Change |
| **Biological Sciences (Human Biology)**  LS5002 Proteins & Metabolism  LS5004 Research Methods & Concepts in Evolutionary Biology  LS5014 Health & Exercise Physiology  Options (select 1**)**  LS5017 Sports Psychology  LS5008 Infection and Immunity | **Biological Sciences (Human Biology)**  LS6027 Drugs, Brain and Behaviour  LS6014 Project (Human Biology)  Options (select 2)  LS6010 Contemporary Issues in Food and Nutrition  LS6018 Extreme Environments and Ergogenic Aids  LS6008 Medical Parasitology |
| **Biological Sciences (Medical Biology)**  LS5004 Research Methods & Concepts in Evolutionary Biology  LS5009 Pathobiology  LS5002 Proteins & Metabolism  LS5008 Infection and Immunity | **Biological Sciences (Medical Biology)**  LS6002 Current Concepts in Biomolecular Science  LS6014 Project (Medical Biology)  LS6008 Medical Parasitology  Options (select 1)  LS6003 Chemotherapy of Infectious and Neoplastic Disease  LS6005 Clinical Chemistry & Haematology  LS6006 Clinical Immunology and Medical Microbiology |
| **Biological Sciences (Genetics & Molecular Biology)**  LS5004 Research Methods & Concepts in Evolutionary Biology  LS5001 Molecular Biology of the Cell  LS5002 Proteins & Metabolism  LS5009 Pathobiology | **Biological Sciences (Genetics &Molecular Biology)**  LS6002 Current Concepts in Biomolecular Science  LS6001 Molecular Genetics & Bioinformatics  LS6014 Project (Genetics and Molecular Biology)  Options (select 1)  LS6027 Drugs, Brain and Behaviour  LS6008 Medical Parasitology |

**Technical Annex**

|  |  |
| --- | --- |
| **Final Award(s):** | BSc (Hons) Biological Sciences (Genetics and Molecular Biology; or Human Biology; or Medical Biology) |
| **Intermediate Award(s):** | Completion of level four only – Certificate of Higher Education Biological Sciences (Genetics and Molecular Biology; or Human Biology; or Medical Biology)  Completion of Level four and five only –Diploma of Higher Education Biological Sciences (Genetics and Molecular Biology; or Human Biology; or Medical Biology)  Completion of level four, five and six without the submission of a final year project – Ordinary degree Biological Sciences (Genetics and Molecular Biology; or Human Biology; or Medical Biology) |
| **Minimum period of registration:** | 3 years FT; 4 years Placement; 6 years PT |
| **Maximum period of registration:** | 6 years; 8 years Placement; 12 years PT |
| **FHEQ Level for the Final Award:** | Honours |
| **QAA Subject Benchmark:** | QAA Biosciences 2019 |
| **Modes of Delivery:** | Full time, part-time and placement |
| **Language of Delivery:** | English |
| **Faculty:** | Science, Engineering and Computing |
| **School:** | Life Sciences, Pharmacy and Chemistry |
| **JACS code:** | C100, C111, C150, C190, C400, C440, C490 |
| **UCAS Code:** | C100 (full time), C111 (with placement), C118 (with foundation) |
| **Course Code:** | C100, C111 |
| **Route Code:** | UFBSC1/USBSC1/UPBSC1 (BSC02/3/4/5/8/9/11/12/13) |
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