Template C4

Programme Specification

Title of Course: *BSc (Hons) Biological Sciences*

Date first produced	30/06/2012
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Version number	7
Faculty	Faculty of Health, Science, Social Care & Education
School	School of Life Sciences, Pharmacy and Chemistry
Department	Department of Applied & Human Sciences
Delivery Institution	Kingston University

This Programme Specification is designed for prospective students, current students, academic staff and 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 they take full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes and content of each modules can be found in the course VLE site and in individual Module Descriptors.

SECTION 1: GENERAL INFORMATION

Award(s) and Title(s): ***Up to 10 pathways***	BSc (Hons) Biological Sciences
Intermediate Awards(s) and Title(s): ***There are 4 Intermediate awards for each pathway***	Cert HE Ordinary degree Dip HE
Course Code ***For each pathway and mode of delivery***	
UCAS code ***For each pathway***	C100 (full time), C111 (with placement), C118 (with foundation)

Award(s) and Title(s): ***Up to 10 pathways***	BSc (Hons) Biological Sciences (with Professional Placement)
Intermediate Awards(s) and Title(s): ***There are 4 Intermediate awards for each pathway***	Cert HE Ordinary degree Dip HE
Course Code ***For each pathway and mode of delivery***	
UCAS code ***For each pathway***	

Award(s) and Title(s): ***Up to 10 pathways***	BSc (Hons) Biological Sciences (with Foundation Year)
Intermediate Awards(s) and Title(s): ***There are 4 Intermediate awards for each pathway***	Cert HE Ordinary degree Dip HE
Course Code ***For each pathway and mode of delivery***	
UCAS code ***For each pathway***	

RQF Level for the Final Award:	Honours
Awarding Institution:	Kingston University
Teaching Institution:	Kingston University
Location:	Penrhyn Road Campus
Language of Delivery:	English
Modes of Delivery:	Part-time

	Full-time With Professional Placement
Available as:	Full field
Minimum period of registration:	Part-time - 6 Full-time - 3 With Professional Placement - 4
Maximum period of registration:	Part-time - 12 Full-time - 6 With Professional Placement - 8
Entry Requirements:	Kingston University typically uses a range of entry requirements to assess an applicant's suitability for our courses. Most course requirements are based on UCAS Tariff points, usually stipulated as a range, and are sometimes coupled with minimum grades in specific relevant subjects. We may also use interview, portfolio and performance pieces to assess an applicant's suitability for the course. We recognise that every person's journey to Higher Education is different and unique and in some cases we may take into account work experience and other non-standard pathways onto University level study. Additionally, all non-UK applicants must meet our English language requirements. Please see our course pages on the Kingston University website for the most up to date entry requirements.
Programme Accredited by:	Royal Society of Biology
QAA Subject Benchmark Statements:	QAA Biosciences 2019
Approved Variants:	The project (bioscience) module (LS6014) must be passed and cannot be compensated.
Is this Higher or Degree Apprenticeship course?	

For Higher or Degree Apprenticeship proposals only	
Higher or Degree Apprenticeship standard:	n/a
Recruitment, Selection and	n/a

Admission process:	
End Point Assessment Organisation(s):	n/a

SECTION 2: THE COURSE

A. Aims of the Course

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.

B. 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.

The programme learning outcomes are the high-level learning outcomes that will have been achieved by all students receiving this award. They must align to the levels set out in the 'Sector Recognised Standards in England' (OFS 2022).

Programme Learning Outcomes					
	Knowledge and Understanding On completion of the course students will be able to:		**Intellectual Skills** On completion of the course students will be able to		**Subject Practical Skills** On completion of the course students will be able to
A6	Demonstrate awareness of career opportunities within the biological sciences pathway being studied or related subject areas	B7	Work effectively in a team and play a full part in achieving its success	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	B6	Develop original ideas and communicate them well to others (in written, oral and digital form)	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	B5	Demonstrate the ability to be an independent and autonomous learner	C2	Perform practical techniques used in the biological sciences appropriate to any specialism safely whilst complying with ethical and safety issues (as appropriate)
A2	Awareness of and ability to apply good laboratory practice, including health and safety procedures appropriate to subject specialism	B4	Assemble and interpret data from a variety of sources (including academic literature) to discern and establish connections	C1	Select and use appropriate techniques used within the appropriate subject specialism
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		
A3	Use information technology, databases and analytical tools appropriate to biological sciences	B2	Apply subject knowledge and understanding to the solving of problems by using innovative methods		
		B3	Plan, conduct and report on an individual research project		

In addition to the programme learning outcomes, the programme of study defined in this programme specification will allow students to develop the following range of Graduate Attributes:

1. Creative Problem Solving
2. Digital Competency
3. Enterprise
4. Questioning Mindset
5. Adaptability
6. Empathy
7. Collaboration
8. Resilience
9. Self-Awareness

C. Outline 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.

BSc (Hons) Biological Sciences

Level 4							
BSc (Hons) Biological Sciences							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Genes, Cells and Tissues	LS4001	30	4	1 & 2			
Human Physiology	LS4004	30	4	1 & 2			
Scientific and Laboratory Skills	LS4003	30	4	1 & 2			
The Biochemical Foundations of Life	LS4002	30	4	1 & 2			
Optional Modules							

Progression to Level 5

Progression to level 5 requires completion of the core modules.
This course permits progression from level 4 to level 5 with 90 credits at level 4 or above, unless specific module prerequisites prevent trailing of credit. The outstanding 30 credits from level 4 can be trailed into level 5 and must be passed before progression to level 6.
Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Certificate of Higher Education.

Level 5							
BSc (Hons) Biological Sciences							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Concepts in Evolutionary Biology	LS5026	15	5	TB1 and TB2		1	2
Molecular Biology of the Cell	LS5001	30	5	1 & 2			
Pathobiology	LS5009	30	5	1 & 2			
Proteins and Metabolism	LS5002	30	5	1 & 2			
Optional Modules							

Level 6							
BSc (Hons) Biological Sciences							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Current Concepts in Biomolecular Science	LS6002	30	6	1 & 2			
Molecular Genetics and Bioinformatics	LS6001	30	6	1 & 2			
Project (Bioscience)	LS6014	30	6	1 & 2			
Optional Modules							
Drugs, Brain and Behaviour	LS6027	30	6	1 and 2		0	0
Medical Parasitology	LS6008	30	6	1 & 2	Level 5		

Level 6 requires the completion of

Level 6 Human Biology requires the completion of the 2 compulsory modules and two option modules
Level 6 Medical Biology requires the completion of the 3 compulsory modules and one option module
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

BSc (Hons) Biological Sciences (with Professional Placement)

BSc (Hons) Biological Sciences (with Foundation Year)

D. 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.

E. 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
- Student Voice 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
- Union of Kingston Students
- 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.

F. 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

G. Employability and work-based learning

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.

Work-based learning, including sandwich courses and higher or degree apprenticeships

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 Health, Science, Social Care and Education (HSSCE) 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.

H. 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

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/

I. Development of Course Learning Outcomes in Modules

This table maps where course learning outcomes are **summatively** assessed across the modules for this course. It provides an aid to academic staff in understanding how individual modules contribute to the course aims, a means to help students monitor their own learning, personal and professional development as the course progresses and a checklist for quality assurance purposes.

Module Code		Level 4				Level 5				Level 6				
		LS4004	LS4003	LS4002	LS4001	LS5002	LS5009	LS5001	LS5026	LS6014	LS6008	LS6027	LS6002	LS6001
Knowledge & Understanding	A6									S			S	
	A5					S	S	S		S	S		S	S
	A4					S	S			S	S		S	S
	A2	S		S	S	S	S	S		S	S			S
	A1	S		S	S	S	S	S		S	S		S	S
	A3					S		S						S
Intellectual Skills	B7												S	
	B6	S		S	S	S	S	S		S	S		S	S
	B5	S		S	S		S	S		S	S			S
	B4			S		S		S		S	S		S	S
	B1			S		S	S	S		S	S		S	S
	B2	S		S	S	S	S	S		S	S		S	S
	B3			S			S	S						S
Practical Skills	C4	S		S	S	S	S	S		S	S		S	S
	C3			S						S	S		S	S
	C2	S		S	S	S	S	S		S	S			S
	C1									S				S

Students will be provided with formative assessment opportunities throughout the course to practise and develop their proficiency in the range of assessment methods utilised.