

University of the West of England

CORPORATE AND ACADEMIC SERVICES

Part 1: Basic Data						
Awarding Institution	University of the West of Englan	d, Bristol				
Teaching Institution	University of the West of Englan	id, Bristol				
Delivery Location	University of the West of Englan	id, Bristol				
Faculty responsible for programme	Faculty of Health and Life Scien	ces				
Department responsible for programme	Department of Applied Sciences	3				
Modular Scheme Title	Health and Life Sciences (Postg	raduate)				
Professional Statutory or Regulatory Body Links Name of PSRB Type of approval Dates	Institute of Biomedical Science					
Highest Award Title	MSc Biomedical Science With specialist routes leading to a number of bracketed specialist titles: MSc Biomedical Science (Blood Science) MSc Biomedical Science (Haematology) MSc Biomedical Science (Immunology) MSc Biomedical Science (Clinical Biochemistry) MSc Biomedical Science (Cellular Pathology) MSc Biomedical Science (Cellular Pathology)					
Default Award Title						
Interim Award Titles	PGDip Biomedical Science (where the project and 60 other credits achieved) PGDip Biomedicine (where 120 credits taught content achieved) PGCert Biomedicine (where any 60 credits achieved)					
UWE Progression Route						
Mode(s) of Delivery	FT & PT (credit accumulation)					
Codes	UCAS: JACS: ISIS2: C9001 HESA:					
Relevant QAA Subject Benchmark Statements	QAA Framework (2001 & 2008)					
CAP Approval Date	29 th May 2012					
Valid until Date	May 2018					
Version	1					

Part 2: Educational Aims of the Programme

- To provide opportunities for postgraduate students from a range of biological and biomedical backgrounds to develop and realise their potential in a supportive and responsive environment
- To add value for learners in their specialised subject specific knowledge and transferable skills
- To offer a coherent yet flexible programme of study at postgraduate level, with a variety of attendance modes
- To provide programme responsive to feedback from students, external examiners and other stakeholders as part of a culture of continuous quality management and enhancement
- To provide appropriate facilities and resources to deliver a quality teaching and learning experience for students.

Part 3: Learning Outcomes of the Programmer	Part 3: Learning Outcomes of the Programme								
The award route provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:									
Learning Outcomes	Teaching, Learning and Assessment Strategies								
A Knowledge and Understanding									
A Knowledge and understanding of	Teaching/learning methods and strategies:								
 a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the discipline the contribution of research and scholarship in 	Acquisition of 1 is through lectures, tutorials, student- led seminars and poster presentations. External expert lecturers provide specialist subject lectures.								
 biomedical science. relevant methods, both theoretical and laboratory based, used in research within the discipline 	Additional support is provided through specifically designed blended learning material undertaken via UWEonline.								
 research and research practice that has the potential for dissemination to the wider scientific community 	Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.								
	Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject								
	Assessment:								
	Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).								
	Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).								
	All modules include a controlled conditions assessment								

Part 3: Learning Outcomes of the Programn	ne
B Intellec	tual Skills
B Intellectual Skills	Teaching/learning methods and strategies:
 On completing the course students should be able to evidence the 1. development of their ability to analyse published material in the biomedical sciences 2. development of their ability to present a structured argument supported by the published literature – including where appropriate the ability 	Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual
to state and defend an opinion in topics where there is no clear right or wrong answer	knowledge and understanding of the subject.
 enhancement of their use of appropriate information technology to seek and analyse 	Assessment:
 information development of their ability to analyse data sets utilising statistics in an appropriate manner development of their ability to undertake 	Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.
independent and self-directed learning	Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.
	Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.
C Subject, Professior	al and Practical Skills
C Subject, Professional and Practical Skills	Teaching/learning methods and strategies:
On completing the course students should be able to evidence 1. their development as independent researchers 2. their understanding of the research process	Acquisition of 1, 2, 4 & 5 are through the Research Project in addition to tutorials with project supervisors. Research Methods and Practical Skills lectures and workshops also support the Project. Skills 3 & 4 are acquired through lectures, tutorials
through execution of a research projectdevelopment of their specific topics of interest by specialising within their awards in relation to their	and oral seminars. Throughout, the learner undertakes independent
 subject or career aspirations their ability to critically evaluate information from a range of sources relevant to biomedical sciences. 	reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject
their ability to apply practical approaches to the study of selected aspects of biomedicine and	Assessment:
demonstrate an awareness of health and safety, ethics and good laboratory practices	Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.
	Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.
D Transferable Skills	s and other attributes
D Transferable Skills and other attributes	Teaching/learning methods and strategies:
1. communicate effectively using a variety of	Skills 1 and 2 are developed throughout all the core

P	art 3: Learning Outcomes of the Programm	16
2.	methods critically analyse data arising from various means of biological inquiry	and specialist modules, particularly during tutorial sessions. Different assessment strategies also enable development of these key skills. Research Methods is a core module which specifically develops analytical skills for use in the Research Project.
		Assessment: A range of assessment strategies are utilised (skills 1 & 2) including essay, concise abstract summary, research critique, poster presentation, oral seminar and research project. Research Methods and Practical Skills module in particular assesses analytical skills involved with biological and statistical inquiry.

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements, interim award requirements module diet, including compulsory and optional modules

Co	mpulsory Modules	Sp	ecialist Subject	Awards
			o from:	Interim Awarda
•	Current Issues in Biomedical Sciences USSKI 3-30-M	•	o from: Cellular Pathology USSJ6F- .30-M	Credit requirements:
•	Research Methods and Practical Skills	•	Clinical Biochemistry USSJ6E-30-M	PGCert Biomedicine (60 M level credits)
•	USSKM3-30-M Research Project	•	Haematology & Transfusion USSJNC-30-M	PGDip Biomedicine (120 M level credits <u>not</u> including the project module)
	03536C-60-141	•	Medical Microbiology USSJN5-30-M	PGDip Biomedical Science (120 M level credits – <u>60 of which</u> are from the project module)
		•	Applied Immunology USSJ6A-30-M	
		•	Antimicrobial Agents USSKQ3-30-M	Full Awards:
		•	Cancer Biology & Genetics USSKN3-30-M	(180 M level credits from within the programme)
		•	Medical Genetics USSKP3-30-M	MSc Biomedical Science (with named route) (180 credits – as detailed in individual pathways detailed later in this document)
				Bracketed designations are to be decided on each student's profile and will be based on choices of optional modules and of specialism strands taken in the core modules as detailed in individual pathways section of this document.

Part-time is to be available on a module gathering/credit accumulation only at this stage, and therefore there is no typical student.

Part 5: Entry Requirements

Applicants will normally possess one of the following:

- An honours degree from a UK University or Institute of Higher Education, at the level of a lower second or above in a relevant subject with a significant biomedical, biological or biochemical content related to the Specialist Subject(s) to be studied
- Such other qualifications and experience deemed equivalent by the Programme Manager in subject content and level of attainment to any of the above, for overseas applications NARIC comparison will be applied

Part 5: Entry Requirements

 Applicants whose previous study has been undertaken overseas will need to meet the English Proficiency requirements as detailed on the University website – these may vary over time, therefore the requirements active at the time of application will apply

Part 6: Assessment

A: Approved to University Regulations and Procedures

Assessment Map

The programme encompasses a range of **assessment methods** including; essays, practical reports, oral presentations and examinations. These are summarised in the following assessment map, and detailed in the module specifications:

					Тур	e of As	sessm	ent*			
		Unseen Written Exam	Open Book Written Exam	In-class Written Test	Practical Exam	Practical Skills Assessment	Oral assessment and/or presentation	Written Assignment	Report / Project	Dissertation	Portfolio
Compulsory	USSKL3-30-M						A (50)	B (50)			
Modules for all routes	USSKM3-30-M	A (35)						B (65)			
	USSJ6C-60-M				•		A (25)	A (15)	A (60)		
Optional (Specialist)	USSJ6F-30-M	A (50)						B (50)			
Modules	USSJ6E-30-M	A (50)						B (50)			
	USSJNC-30-M	A (50)			÷			B (50)		•	•
	USSJN5-30-M	A (50)						B (50)			
	USSJ6A-30-M	A (50)					B (50)				
	USSKQ3-30-M	A (50)						B (50)			
	USSKN3-30-M	A (50)					B (25)	B (25)			
	USSKP3-30-M	A (50)						B (50)			

Assessment Map for MSc Biomedical Science

*Assessment should be shown in terms of either Written Exams, Practical exams, or Coursework as indicated by the colour coding above.

Part 6: Assessment

Part 7: Student Learning

Teaching, learning and assessment strategies to enable learning outcomes to be achieved and demonstrated

At UWE, Bristol there is a policy for a minimum average requirement of 12 hours/week contact time over the course of the full undergraduate programme. Although this is a postgraduate award as there is significant co-teaching the modules also meet the contact requirement. This contact time encompasses a range of face to face activities as described below. In addition a range of other learning activities will be embedded within the programme which, together with the contact time, will enable learning outcomes to be achieved and demonstrated.

On the MSc Biomedical Science programme teaching is a mix of scheduled and independent learning.

Scheduled learning includes lectures, seminars, tutorials, project supervision, practical classes and workshops. Scheduled sessions will vary slightly depending on the specialist module choices made.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion etc.

The MSc BMS programme has an overarching strategy to ensure students are exposed to a range of assessment types that assess both knowledge and skills. The strategy also aims to ensure equity of expectation of student effort for coursework across the programme.

Description of Distinctive Features and Support

The MSc Biomedical Science suite of programmes contains a combination of specialist subject modules, where the student is encouraged to study certain topics in depth, and core modules, where the student is required to examine the wider biomedical sciences and assess how the knowledge of their own discipline interlinks with others. Students also undertake a substantial piece of individual research that is supported by the Research Methods and Practical Skills module which guides and develops them in the skills required to undertake the project.

Members of the biomedical science teaching staff featured strongly in the Research Assessment Exercise (RAE) in 2008, and the outcome highlighted the research strength in Biomedical Science at UWE; with 65% rated as 3 or 4*. Staff were submitted to the Allied Health Professions and Studies (Biomedical Science) unit of assessment (UoA12) and results showed that in Biomedical Science we have proportionately more internationally excellent research than any other University in the UK (<u>http://rae.ac.uk/results/outstore/RAEOutcomeF.pdf</u>). The Times Higher Education RAE ratings placed our Biomedical Science research at 6th

(http://www.timeshighereducation.co.uk/Journals/THE/THE/18_December_2008/attachments/RAE_2008_T HE_RESULTS.pdf) out of 70 University submissions. Research very much informs our curriculum ensuring currency and knowledge exchange. The research undertaken in several research groups has a focus on translation into practice thus supporting current NHS strategies. UWE has identified the research that went into this UoA as one of its five areas of identified research strength and as such there is access to support for future developments through the Strategic Research Development Fund of the University.

The research relevant to the MSc BMS programme is situated in a Research Centre and/or a cross-Faculty Institute. The Centre for Research in Biosciences is a vibrant research community with funding from government departments, research councils, research charities and industry. The Institute of Bio-sensing Technology is a cross-Faculty initiative between Health & Life Sciences and the Faculty of Environment and Technology. It brings together the bio-sensing expertise of Health & Life Sciences with the electrical engineering expertise of Faculty of Environment and Technology to help drive a range of new initiatives in medical diagnostics and personalised medicine with a strong emphasis on business engagement. Staff's research informs several parts of the programme's curriculum.

Part 7: Student Learning

The level of research activity in programme staff is a major advantage in the provision of high quality research projects for full-time students enrolled on the MSc programme. To ensure as high a quality experience as possible the students are spread across staff as widely as possible, whilst retaining their specialist preferences. The success of this is evidenced by the very high pass rate for the project module over the years, for some students it has been the one module that they have been successful in. A number of students have also been able to present their projects at local, national and even international conferences over the years, and in other cases their data has been be used in conjunction with their supervisors data to generate publications. The Faculty supports the MSc student projects with ring-fenced funding for consumables set at a much higher level than that set for undergraduate students, recognising the role that MSc students often play in generating pump prime data that staff can use in bids for external funding.

A significant number of graduates from the full-time MSc have gone on to undertake PhD level studies. Several have chosen to self-fund their own doctorates and chosen to remain at UWE, often continuing to work with their MSc supervisor. Others have gone on to undertake PhDs elsewhere.

Modules are delivered as a mixture of lectures, tutorials, and discussions. These are intended to stimulate and sustain students' interests by explaining and developing concepts and demonstrating interrelationships rather than to impart large quantities of factual material. Factual material is provided by means of handouts and library references and use of the virtual learning environment UWE online. Students are expected and encouraged to engage in self-directed and independent learning.

Small tutorial groups meet on a regular basis. The students and the lecturer discuss conceptual and other problems that are normally identified by the students. Students with knowledge of a particular topic are expected to make a major contribution during these periods. Tutorials include material additional to that covered during lectures. This material allows the development of topics previously introduced in the lecture situation.

The nature of this programme requires that there is considerable input from Biomedical Science practitioners working within specialist disciplines in the National Health Service and related sectors. We consider that this adds considerable expertise to the teaching team and ensures currency of our MSc awards within Biomedical Science. The experts involved in this programme are biomedical scientists, practicing pathologists, physicians and senior research scientists. Colleagues from other Universities are also engaged to teach on the programme where appropriate.

The University's virtual learning environment (UWEonline) is available as a source of information for students whilst away from UWE, Bristol. It incorporates tutorials, activities and guided reading that augment the student-centred learning.

Part 8: Reference Points and Benchmarks

Description of *how* the following reference points and benchmarks have been used in the design of the programme:

QAA subject benchmark statements University strategies and policies Staff research projects Employer interaction and feedback

• QAA Framework for Higher Education Qualifications

The MSc in Biomedical Science complies with the QAA Framework for Higher Education Qualifications in England, Wales and Northern Ireland (Jan 2001), and has been checked against the more recent version of this document (2008) and the QAA document Master's degree characteristics.

The MSc Programme encompasses three possible award levels; the target award (that is the award on which students enroll) of MSc and the two interim award levels (that the student can accept if they do not complete the full MSc) - PGCert Biomedicine and PGDip Biomedical Science or Biomedicine. The PGCert Biomedicine is awarded to individuals who have successfully completed 60 M level credits from within the available diet of modules. The PGDip Biomedical Science will mark the achievement of completing 120 M level credits including a minimum of 60 credits come from the Research Project module reflecting the importance of the project to Biomedical Science. A PGDip Biomedicine will be awarded for 120 credits when the project module is not successfully completed. The MSc is awarded to individuals who acquire 180 M level credits which <u>must</u> include the project. Named specialist routes will be applied in brackets where students completed the module combinations and/or coursework strand choices detailed in table 1. Students with relevant postgraduate awards from other institutes may be able to apply for advanced entry subject to the Faculty's accreditation of prior learning procedures.

Subject benchmarks

N/A for postgraduate awards in Biomedical Science

University teaching and learning policies and staff research projects:

The staff that support the programme come from the Department of Applied Sciences and have specific expertise in their subject area appropriate to M level provision. The modules are strongly underpinned by the research expertise of the Programme team. The quality, management and enhancement (QME) of the provision rely upon staff development, including research. Staff development includes personal review via the appraisal and development scheme, in-house training and external fora. The Faculty earmarks some finance for staff development; each member of staff may call upon funds to support attendance at conferences etc. New academic staff undertake a one-year Professional Development PGCert Award, which is recognised by the Higher Education Academy, formally the Institute for Learning and Teaching (ILT).

The Full-time students undertake their Projects within the Faculty research areas appropriate to their route choice; these areas of research performed favourably in the last RAE and many of the staff will be REF returned. All members of staff involved in project supervision within the MSc programmes are research active. In the future should there be part-time students, they will undertake their research studies within their own laboratories. An appropriately qualified person within their place of work supervises the students, with added support coming from their specialist module leader at UWE, Bristol.

This specification provides a concise summary of the main features of the programme and the 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 learning outcomes, content and teaching, learning and assessment methods of individual modules can be found in module specifications, available on the University's website.

Appendix 1

SPECIFICATION FOR ADDITIONAL AWARD TITLE

Title of Primary Award	MSc Biomedical Science	MSc Biomedical Science				
Highest Award Title of additional target	MSc Biomedical Science (Blood Science)					
Interim Award Titles for additional target	PGDip Biomedical Scie credits achieved) PGDip Biomedicine (wh PGCert Biomedicine (w	nce (where the project and 60 other here 120 credits taught content achieved) here any 60 credits achieved)				
Codes	UCAS:	JACS:				
	ISIS2:C9001	HESA:				
Relevant QAA Subject Benchmark Statements	QAA Framework (2001	& 2008)				
CAP Approval Date	29 th May 2012					
Valid until Date	May 2018					
Version	1					

Part 3a: Learning Outcomes of the Program	nme								
The award route provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:									
Learning Outcomes	Teaching, Learning and Assessment Strategies								
A Knowledge and Understanding									
A Knowledge and understanding of	Teaching/learning methods and strategies:								
 a broad biomedical science base with specific areas of deeper understanding relevant to the sub-discipline of blood sciences (a combination of haematology and clinical biochemistry) the contribution of research and scholarship in biomedical science. relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline research and research practice that has the potential for dissemination to the wider scientific community 	Acquisition of 1 is through lectures, tutorials, student- led seminars and poster presentations. Externa expert lecturers provide specialist subject lectures. Additional support is provided through specifically designed blended learning material undertaken via UWEonline. Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individua knowledge and understanding of the subject Assessment: Testing of the knowledge base is through assessed coursework, through oral and poster presentatior and through tasks undertaken under examinatior conditions (1-3).								

Part 3a: Learning Outcomes of the Program	me
	Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4). All modules include a controlled conditions assessment
B Intellec	tual Skills
B Intellectual Skills	Teaching/learning methods and strategies:
 On completing the course students should be able to evidence the development of their ability to analyse published material in the biomedical sciences, particularly in the sub-discipline of blood sciences development of their ability to present a structured argument supported by the published literature – including where appropriate the ability to state and defend an opinion in topics where there is no clear right or wrong answer enhancement of their use of appropriate information technology to seek and analyse information development of their ability to analyse data sets utilising statistics in an appropriate manner development of their ability to undertake independent and self-directed learning 	Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject. Assessment: Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5. Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module. Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.
C Subject, Profession	al and Practical Skills
 C Subject, Professional and Practical Skills On completing the course students should be able to evidence 1. their development as independent researchers 2. their understanding of the research process through execution of a research project 3. development of their interest in the blood sciences in relation to their subject or career aspirations 4. their ability to critically evaluate information from a range of sources relevant to biomedical sciences. 5. their ability to apply practical approaches to the study of selected aspects of blood sciences research and demonstrate an awareness of health and safety, ethics and good laboratory practices 	Teaching/learning methods and strategies: Acquisition of 1, 2, 4 & 5 are through the Research Project in addition to tutorials with project supervisors. Research Methods and Practical Skills lectures and workshops also support the Project. Skills 3 & 4 are acquired through lectures, tutorials and oral seminars. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject Assessment: Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce – students on

Part 3a: Learning Outcomes of the Program	me
	research within this sub-discipline
	Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.
D Transferable Skills	s and other attributes
D Transferable Skills and other attributes	Teaching/learning methods and strategies:
communicate effectively using a variety of methods critically analyse data arising from various mear of biological inquiry	Skills 1 and 2 are developed throughout all the core and specialist modules, particularly during tutorial sessions. Different assessment strategies also enable development of these key skills. Research Methods is a core module which specifically develops analytical skills for use in the Research Project.
	Assessment:
	A range of assessment strategies are utilised (skills 1 & 2) including essay, concise abstract summary, research critique, poster presentation, oral seminar and research project. Research Methods and Practical Skills module in particular assesses analytical skills involved with biological and statistical inquiry.

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements, interim award requirements, module diet, including compulsory and optional modules

Co	mpulsory Modules	Optional modules	Awards
•	Current Issues in Biomedical Sciences USSKL3-30-M	None	Interim Awards Credit requirements: PGCert Biomedicine (60 M level credits)
•	Research Methods and Practical Skills USSKM3-30-M		PGDip Biomedicine (120 M level credits <u>not</u> including the project module)
•	Research Project USSJ6C-60-M		PGDip Biomedical Science (120 M level credits – <u>60 of which</u>
•	Clinical Biochemistry USSJ6E-30-M		are from the project module)
•	Haematology & Transfusion USSJNC-30-M		Full Awards:
			MSc Biomedical Science (Blood Science) (180 M level credits from within the programme)

Assessme	nt Map										
The program oral presenta detailed in th	nme encompasses ations and examin le module specifica	a rang ations. tions:	je of a Thes	e are	ment i summa	nethoc arised i	ds inclu n the f	iding; (ollowin	essays g asse	, prac essmei	tical repor nt map, a
	Assessment	Map f	or MS	Sc Bio	medica	al Scie	nce (B	lood S	Science	e)	
				-	Ту	pe of As	ssessm	ent*	-		:
		Unseen Written Exam	Open Book Written Exam	In-class Written Test	Practical Exam	Practical Skills Assessment	 Oral assessment and/or presentation 	Written Assignment	Report / Project	Dissertation	Portfolio
Compulsory	USSKL3-30-M						A (50)	B (50)			
wodules	USSKM3-30-M	A (35)						B (65)			
	USSJ6C-60-M						A (25)	A (15)	A (60)		
	USSJ6E-30-M	A (50)						B (50)			
	USSJNC-30-M	A (50)						B (50)			

Title of Primary Award	MSc Biomedical Science	
Highest Award Title of additional target	MSc Biomedical Science (Haem	natology)
Interim Award Titles for additional target	PGDip Biomedical Science (whe credits achieved) PGDip Biomedicine (where 120 PGCert Biomedicine (where any	ere the project and 60 other credits taught content achieved) / 60 credits achieved)
Codes	UCAS:	JACS:
	ISIS2:C9001	HESA:
Relevant QAA Subject Benchmark Statements	QAA Framework (2001 & 2008)	
CAP Approval Date	29 th May 2012	
Valid until Date	May 2018	
Version	1	

Part 3a: Learning Outcomes of the Programme

Learning Outcomes	Teaching, Learning and Assessment Strategies
A Knowledge a	and Understanding
A Knowledge and understanding of	Teaching/learning methods and strategies:
 a broad biomedical science base with specific areas of deeper understanding in the sub- discipline of haematology the contribution of research and scholarship in biomedical science. relevant methods, both theoretical and laboratory based, used in research within the discipline, and more specifically the sub- discipline of haematology research and research practice that has the potential for dissemination to the wider scientific community, with a focus on the sub- discipline of haematology 	Acquisition of 1 is through lectures, tutorials, student- led seminars and poster presentations. External expert lecturers provide specialist subject lectures. Additional support is provided through specifically designed blended learning material undertaken via UWEonline. Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject
	Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3). Testing of research practice and understanding is

Part 3a: Learning Outcomes of the Program	me					
	and oral viva examination (3&4).					
	All modules include a controlled conditions assessment					
B Intellec	tual Skills					
B Intellectual Skills	Teaching/learning methods and strategies:					
 On completing the course students should be able to evidence the development of their ability to analyse published material in the biomedical sciences, particularly within the field of haematology development of their ability to present a structured argument supported by the published literature – including where appropriate the ability to state and defend an opinion in topics where there is no clear right or wrong answer enhancement of their use of appropriate information technology to seek and analyse information development of their ability to analyse data sets utilising statistics in an appropriate manner development of their ability to undertake independent and self-directed learning 	Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject. Assessment: Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5. Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.					
	in the Data Analysis assessment in the Research Methods and Practical Skills module.					
C Subject, Professior	al and Practical Skills					
 C Subject, Professional and Practical Skills On completing the course students should be able to evidence 1. their development as independent researchers 2. their understanding of the research process through execution of a research project within the sub-discipline of haematology 3. development of their specific topics of interest by specialising in haematology in relation to their subject or career aspirations 4. their ability to critically evaluate information from a range of sources relevant to biomedical sciences. 5. their ability to apply practical approaches to the study of selected aspects of biomedicine and demonstrate an awareness of health and safety, ethics and good laboratory practices 	Teaching/learning methods and strategies: Acquisition of 1, 2, 4 & 5 are through the Research Project in addition to tutorials with project supervisors. Research Methods and Practical Skills lectures and workshops also support the Project. Skills 3 & 4 are acquired through lectures, tutorials and oral seminars. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject Assessment: Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce. Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.					

F	Part 3a: Learning Outcomes of the Program	me
	D Transferable Skills	and other attributes
D.	Transferable Skills and other attributes	Teaching/learning methods and strategies:
1. 2.	communicate effectively using a variety of methods critically analyse data arising from various means of biological inquiry	Skills 1 and 2 are developed throughout all the core and specialist modules, particularly during tutorial sessions. Different assessment strategies also enable development of these key skills. Research Methods is a core module which specifically develops analytical skills for use in the Research Project.
		Assessment: A range of assessment strategies are utilised (skills 1 & 2) including essay, concise abstract summary, research critique, poster presentation, oral seminar and research project. Research Methods and Practical Skills module in particular assesses analytical skills involved with biological and statistical inquiry.

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements, interim award requirements, module diet, including compulsory and optional modules

Сс	mpulsory Modules	Op	tional modules	Awards
•	Current Issues in Biomedical Sciences USSKL3-30-M	Or •	ne from: Cellular Pathology USSJ6F-30-M	Interim Awards Credit requirements: PGCert Biomedicine
•	Research Methods and Practical Skills USSKM3-30-M	•	Clinical Biochemistry USSJ6E-30-M Medical Microbiology	PGDip Biomedicine (120 M level credits <u>not</u> including the project module)
•	Research Project USSJ6C-60-M		USSJN5-30-M	PGDip Biomedical Science (120 M level credits – 60 of
•	Haematology & Transfusion USSJNC-30-M	•	Antimicrobial Agents USSKQ3-30-M	which are from the project module)
		•	Cancer Biology & Genetics USSKN3-30-M Medical Genetics USSKP3-30-M	Full Awards: MSc Biomedical Science (Haematology) (180 M level credits from within the programme)

* To be achieve the designated Haematology pathway students will be required to undertake their project within haematology and also to take the relevant coursework strand in Current Issues in Biomedical Sciences

Assessme	nt Map											
The program reports, ora assessmen	mme encompass al presentations t map, and detaile	es a ra and e ed in th	ange o examir ne moo	of ass nations dule sp	essme s. Th pecifica	ent me nese a ations:	ethod: are su	s inclu umma	ding; rised	essay: in the	s, prac e follo	tical wing
	Assessment	t Map 1	for MS	Sc Bio	medica Typ	al Scie	nce (H	laema	tology	()		1
					7P		3033m					
		Unseen Written Exam	Open Book Written Exam	In-class Written Test	Practical Exam	Practical Skills Assessment	Oral assessment and/or presentation	Written Assignment	Report / Project	Dissertation	Portfolio	
Compulsory	USSKL3-30-M						A (50)	B (50)				
Modules	USSKM3-30-M	A (35)						B (65)				
	USSJ6C-60-M						A (25)	A (15)	A (60)	essays, prac in the follow) Confection Control Contro		
	USSJNC-30-M	O-M A O-B Number of the second se										
Optional Modules	USSJ6F-30-M	(00) A (50)				A A A (25) (15) (60) B (50) (50)						
Optional Modules	USSJ6E-30-M	(30) A (50)						(50) B (50)				
	USSJN5-30-M	A (50)						B (50)				
	USSJ6A-30-M	A (50)					B (50)					
	USSKQ3-30-M	A (50)					()	B (50)				
	USSKN3-30-M	(00) A (50)					B (25)	(00) B (25)			S. Or	
	USSKP3-30-M	(50) A (50)					(20)	(23) B (50)				
*Assessme	nt should be show	vn in te	erms o	f eithe	r Writt	en Fx:	ams, F	Practic	al exa	ms or	•	-

[•]Assessment should be shown in terms of either Written Exams, Practical exams, Coursework as indicated by the colour coding above.

Title of Primary Award	MSc Biomedical Science	
Highest Award Title of additional target	MSc Biomedical Science (Clinic	al Biochemistry)
Interim Award Titles for additional target	PGDip Biomedical Science (whe credits achieved) PGDip Biomedicine (where 120 PGCert Biomedicine (where any	ere the project and 60 other credits taught content achieved) y 60 credits achieved)
Codes	UCAS:	JACS:
	ISIS2:C9001	HESA:
Relevant QAA Subject Benchmark Statements	QAA Framework (2001 & 2008)	
CAP Approval Date	29 th May 2012	
Valid until Date	May 2018	
Version	1	

Part 3a: Learning Outcomes of the Programme

Le	arning Outcomes	Teaching, Learning and Assessment Strategies
	A Knowledge an	d Understanding
ΑI	Knowledge and understanding of	Teaching/learning methods and strategies:
1.	a broad biomedical science base with specific areas of deeper understanding relevant to the sub-discipline of clinical biochemistry the contribution of research and scholarship in	Acquisition of 1 is through lectures, tutorials, student- led seminars and poster presentations. External expert lecturers provide specialist subject lectures.
3.	biomedical science. relevant methods, both theoretical and laboratory based, used in research within the discipline with an emphasis of clinical	Additional support is provided through specifically designed blended learning material undertaken via UWEonline.
4.	biochemistry research and research practice that has the potential for dissemination to the wider scientific community, with an emphasis of	Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.
	clinical biochemistry	Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject
		Assessment: Testing of the knowledge base is through assessed
		and through tasks undertaken under examination conditions (1-3).

Part 3a: Learning Outcomes of the Program	me
	Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).
	All modules include a controlled conditions assessment
B Intellec	tual Skills
B Intellectual Skills	Teaching/learning methods and strategies:
 On completing the course students should be able to evidence the 1. development of their ability to analyse published material in the biomedical sciences with an emphasis of clinical biochemistry 2. development of their ability to present a structured argument supported by the published literature – including where appropriate the ability to state and defend an opinion in topics where there is no clear right or wrong answer 3. enhancement of their use of appropriate information technology to seek and analyse information 4. development of their ability to analyse data sets utilising statistics in an appropriate manner 5. development of their ability to undertake independent and self-directed learning 	Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject. Assessment: Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5. Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module. Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research
	Methods and Practical Skills module.
C Subject, Professior	al and Practical Skills
 C Subject, Professional and Practical Skills On completing the course students should be able to evidence 1. their development as independent researchers 2. their understanding of the research process through execution of a research project in the area of clinical biochemistry 3. development of their specific topics of interest by specialising the sub-discipline of clinical biochemistry in relation to their subject or career aspirations 4. their ability to critically evaluate information from a range of sources relevant to biomedical sciences. 5. their ability to apply practical approaches to the study of selected aspects of biomedicine and demonstrate an awareness of health and safety, ethics and good laboratory practices 	Teaching/learning methods and strategies: Acquisition of 1, 2, 4 & 5 are through the Research Project in addition to tutorials with project supervisors. Research Methods and Practical Skills lectures and workshops also support the Project. Skills 3 & 4 are acquired through lectures, tutorials and oral seminars. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject Assessment: Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce. Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.

F	Part 3a: Learning Outcomes of the Program	me
	D Transferable Skills	and other attributes
D	Transferable Skills and other attributes	Teaching/learning methods and strategies:
3. 4.	communicate effectively using a variety of methods critically analyse data arising from various means of biological inquiry	Skills 1 and 2 are developed throughout all the core and specialist modules, particularly during tutorial sessions. Different assessment strategies also enable development of these key skills. Research Methods is a core module which specifically develops analytical skills for use in the Research Project.
		Assessment: A range of assessment strategies are utilised (skills 1 & 2) including essay, concise abstract summary, research critique, poster presentation, oral seminar and research project. Research Methods and Practical Skills module in particular assesses analytical skills involved with biological and statistical inquiry.

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements, interim award requirements, module diet, including compulsory and optional modules

Со	mpulsory Modules	Ор	tional modules	Awards
•	Current Issues in Biomedical Sciences USSKL3-30-M	On •	e from: Cellular Pathology	Interim Awards Credit requirements:
•	Research Methods and Practical Skills USSKM3-30-M	•	Haematology & Transfusion USSJNC-30-M	(60 M level credits) PGDip Biomedicine (120 M level credits <u>not</u> including the project module)
•	USSJ6C-60-M	•	USSJN5-30-M	PGDip Biomedical Science (120 M level credits – <u>60 of</u> which are from the project
	USSJ6E-30-M	•	Antimicrobial Agents	<u>module</u>)
		•	USSKQ3-30-M Cancer Biology & Genetics	Full Awards: MSc Biomedical Science (Clinical
		•	Medical Genetics USSKP3-30-M	Biochemistry) (180 M level credits from within the programme)

* To be achieve the designated Clinical Biochemistry pathway students will be required to undertake their project within clinical biochemistry and also to take the relevant coursework strand in Current Issues in Biomedical Sciences

The program oral presenta detailed in th	nme encompasses ations and examin e module specifica	a rang ations. tions:	e of a These	ssess e are :	ment n summa	n ethoc rised i	ls inclu n the fo	ding; (ollowin	essays g asse	, pract essmer	ical re nt maj
	Assessment Ma	ap for	MSc B	Biomed	dical So	cience	e (Clinio	cal Bio	ochem	istry)	
	Type of Assessment*										
		Unseen Written Exam	Open Book Written Exam	In-class Written Test	Practical Exam	Practical Skills Assessment	Oral assessment and/or presentation	Written Assignment	Report / Project	Dissertation	Portfolio
Compulsory	USSKL3-30-M						A (50)	B (50)			
Modules	USSKM3-30-M	A (35)					(00)	B (65)			
	USSJ6C-60-M						A (25)	A (15)	A (60)		
	USSJ6E-30-M	A (50)						B (50)			
Optional Modules	USSJ6F-30-M	A (50)						B (50)			
	USSJNC-30-M	A (50)						B (50)			
	USSJN5-30-M	A (50)						B (50)			
	USSJ6A-30-M	A (50)					B (50)	x - 7			
	USSKQ3-30-M	A (50)					()	B (50)			
	USSKN3-30-M	A (50)					B (25)	B (25)			
	USSKP3-30-M	A (50)		-			· · /	B (50)			

*Assessment should be shown in terms of either Written Exams, Practical exams, or Coursework as indicated by the colour coding above.

Title of Primary Award	MSc Biomedical Science	MSc Biomedical Science				
Highest Award Title of additional target	MSc Biomedical Science (Immunology)					
Interim Award Titles for additional target	PGDip Biomedical Science (where the project and 60 other credits achieved) PGDip Biomedicine (where 120 credits taught content achieved) PGCert Biomedicine (where any 60 credits achieved)					
Codes	UCAS: JACS:					
	ISIS2:C9001 HESA:					
Relevant QAA Subject Benchmark Statements	QAA Framework (2001 & 2008)					
CAP Approval Date	29 th May 2012					
Valid until Date	May 2018					
Version	1					

Part 3a: Learning Outcomes of the Programme

 A Knowledge and Understanding A Knowledge and understanding of a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline of immunology the contribution of research and scholarship in biomedical science, with particular reference to immunology. relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline of immunology research and research practice that has the potential for dissemination to the wider scientific community 	Learning Outcomes	Teaching, Learning and Assessment Strategies								
 A Knowledge and understanding of a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline of immunology the contribution of research and scholarship in biomedical science, with particular reference to immunology. relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline of immunology research and research practice that has the potential for dissemination to the wider scientific community Teaching/learning methods and strategies: Acquisition of 1 is through lectures, tutorials, stuled seminars and poster presentations. Ext expert lecturers provide specialist subject lecture Additional support is provided through special designed blended learning material undertaket UWEonline. Acquisition of 2, 3 and 4 is through specialist sulectures and tutorials in addition to the Reserver scientific community Throughout, the learner undertakes indeperreading to the subject 	A Knowledge and Understanding									
 a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline of immunology the contribution of research and scholarship in biomedical science, with particular reference to immunology. relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline of immunology research and research practice that has the potential for dissemination to the wider scientific community Acquisition of 1 is through lectures, tutorials, stu led seminars and poster presentations. Ext expert lecturers provide specialist subject lectures Additional support is provided through special designed blended learning material undertaken UWEonline. research and research practice that has the potential for dissemination to the wider scientific community Acquisition of 2, 3 and 4 is through specialist su lectures and tutorials in addition to the Rese Project. Throughout, the learner undertakes indeper reading both to supplement and consolidate wh being taught/learnt and to broaden their indivi- tional support is provided through specialist su lectures and undertakes indeper 	A Knowledge and understanding of	Teaching/learning methods and strategies:								
 the contribution of research and scholarship in biomedical science, with particular reference to immunology. relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline of immunology research and research practice that has the potential for dissemination to the wider scientific community Additional support is provided through special designed blended learning material undertaken UWEonline. Acquisition of 2, 3 and 4 is through specialist su lectures and tutorials in addition to the Rese Project. Throughout, the learner undertakes indeper reading both to supplement and consolidate wh being taught/learnt and to broaden their indiv troughout and the project is provided through special designed blended learning material undertaken UWEonline. 	1. a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline of immunology	Acquisition of 1 is through lectures, tutorials, student- led seminars and poster presentations. External expert lecturers provide specialist subject lectures.								
 relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline of immunology research and research practice that has the potential for dissemination to the wider scientific community Acquisition of 2, 3 and 4 is through specialist su lectures and tutorials in addition to the Rese Project. Throughout, the learner undertakes indeper reading both to supplement and consolidate wh being taught/learnt and to broaden their indiv treawledge and understanding of the subject 	 the contribution of research and scholarship in biomedical science, with particular reference to immunology. 	Additional support is provided through specifically designed blended learning material undertaken via UWEonline.								
potential for dissemination to the wider scientific community Throughout, the learner undertakes indeper reading both to supplement and consolidate wh being taught/learnt and to broaden their indiv	 relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline of immunology research and research practice that has the 	Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.								
knowledge and understanding of the subject	potential for dissemination to the wider scientific community	Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject								
Assessment:		Assessment:								
Testing of the knowledge base is through asse coursework, through oral and poster present and through tasks undertaken under examin conditions (1-3).		Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).								

Part 3a: Learning Outcomes of the Program	me					
	Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4). All modules include a controlled conditions assessment					
B Intellec	tual Skills					
B Intellectual Skills	Teaching/learning methods and strategies:					
 On completing the course students should be able to evidence the 1. development of their ability to analyse published material in the biomedical sciences, particularly in relation to immunology 2. development of their ability to present a structured argument supported by the published literature – including where appropriate the ability 	Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject.					
to state and defend an opinion in topics where there is no clear right or wrong answer	Assessment:					
 enhancement of their use of appropriate information technology to seek and analyse information development of their ability to analyse data sets utilising statistics in an appropriate manner 	Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.					
 development of their ability to undertake independent and self-directed learning 	Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.					
	Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.					
C Subject, Profession	nal and Practical Skills					
 C Subject, Professional and Practical Skills On completing the course students should be able to evidence 1. their development as independent researchers 2. their understanding of the research process through execution of a research project in the sub-discipline of immunology 3. development of their specific topics of interest by specialising within immunology in relation to their subject or career aspirations 4. their ability to critically evaluate information from a range of sources relevant to biomedical sciences. 5. their ability to apply practical approaches to the attract of their approaches to the activate of the product of the statements of the statemen	Teaching/learning methods and strategies: Acquisition of 1, 2, 4 & 5 are through the Research Project in addition to tutorials with project supervisors. Research Methods and Practical Skills lectures and workshops also support the Project. Skills 3 & 4 are acquired through lectures, tutorials and oral seminars. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject Assessment:					
study of selected aspects of biomedicine and demonstrate an awareness of health and safety, ethics and good laboratory practices	Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.					

F	art 3a: Learning Outcomes of the Program	me
		Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.
	D Transferable Skills	and other attributes
D -	Transferable Skills and other attributes	Teaching/learning methods and strategies:
1. 2.	 communicate effectively using a variety of methods critically analyse data arising from various means of biological inquiry 	Skills 1 and 2 are developed throughout all the core and specialist modules, particularly during tutorial sessions. Different assessment strategies also enable development of these key skills. Research Methods is a core module which specifically develops analytical skills for use in the Research Project.
		Assessment: A range of assessment strategies are utilised (skills 1 & 2) including essay, concise abstract summary, research critique, poster presentation, oral seminar and research project. Research Methods and Practical Skills module in particular assesses analytical skills involved with biological and statistical inquiry.

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements, interim award requirements, module diet, including compulsory and optional modules

Со	mpulsory Modules	Optional modules	Awards
•	Current Issues in Biomedical Sciences USSKL3-30-M Research Methods and Practical Skills USSKM3-30-M Research Project	 One from: Cellular Pathology USSJ6F-30-M Clinical Biochemistry USSJ6E-30-M Haematology & Transfusion USSJNC-30-M 	Interim Awards Credit requirements: PGCert Biomedicine (60 M level credits) PGDip Biomedicine (120 M level credits <u>not</u> including the project module) PGDip Biomedical Science (120 M level credits <u>60 of</u>
•	Applied Immunology USSJ6A-30-M	 Medical Microbiology USSJN5-30-M Antimicrobial Agents USSKQ3-30-M Cancer Biology & Genetics USSKN3-30-M Medical Genetics USSKP3-30-M 	(120 M level credits – <u>60 of</u> <u>which are from the project</u> <u>module</u>) Full Awards: MSc Biomedical Science (Immunology) (180 M level credits from within the programme)

* To be achieve the designated Immunology pathway students will be required to undertake their project within immunology and also to take the relevant coursework strand in Current Issues in Biomedical Sciences

The program reports, ora assessmen	mme encompass al presentations t map, and detaile	es a ra and o ed in th	ange o examii ne moo	of ass nation dule s	essme s. Tl pecifica	ent mo hese ations:	ethod s are su	s inclu umma	ding; rised	essay in the	s, practic e followi
Assessment Map for MSc Biomedical Science (Immunology)											
Type of Assessment*											
		Unseen Written Exam	Open Book Written Exam	In-class Written Test	Practical Exam	Practical Skills Assessment	Oral assessment and/or presentation	Written Assignment	Report / Project	Dissertation	Portfolio
Compulsory	USSKL3-30-M						A (50)	B (50)			
Modules	USSKM3-30-M	A (35)						B (65)			
	USSJ6C-60-M						A (25)	A (15)	A (60)		
	USSJ6A-30-M	A (50)					B (50)	. ,	· · ·		
Optional Modules	USSJ6F-30-M	A (50)						B (50)			
	USSJ6E-30-M	A (50)						B (50)			
	USSJNC-30-M	A (50)						B (50)			
	USSJN5-30-M	(50) A (50)						(50)			
	USSKQ3-30-M	(00) A (50)						(50) B (50)			
	USSKN3-30-M	A (50)					B (25)	B (25)			
	USSKP3-30-M	A (50)					()	() B (50)			

Title of Primary Award	MSc Biomedical Science					
Highest Award Title of additional target	MSc Biomedical Science (Medical Microbiology)					
Interim Award Titles for additional target	PGDip Biomedical Science (where the project and 60 other credits achieved) PGDip Biomedicine (where 120 credits taught content achieved) PGCert Biomedicine (where any 60 credits achieved)					
Codes	UCAS: JACS: ISIS2:C9001 HESA:					
Relevant QAA Subject Benchmark Statements	QAA Framework (2001 & 2008)					
CAP Approval Date	29 th May 2012					
Valid until Date	May 2018					
Version	1					

Part 3a: Learning Outcomes of the Programme

Learning Outcomes	Teaching, Learning and Assessment Strategies								
A Knowledge and Understanding									
A Knowledge and understanding of	Teaching/learning methods and strategies:								
 a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline of medical microbiology the contribution of research and scholarship in biomedical science. relevant methods, both theoretical and laboratory based, used in research within the discipline, with a particular focus on medical microbiology research and research practice that has the potential for dissemination to the wider scientific community 	Acquisition of 1 is through lectures, tutorials, student- led seminars and poster presentations. External expert lecturers provide specialist subject lectures. Additional support is provided through specifically designed blended learning material undertaken via UWEonline. Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject Assessment: Testing of the knowledge base is through assessed								
	coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).								

B Intell	3a: Learning Outcomes of the Program	me
B Intell		Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).
B Intell		All modules include a controlled conditions assessment
B Intell	B intellec	tual Skills
B Intell	B interied	
	ectual Skills	Teaching/learning methods and strategies:
On cor able to 1. dev mat part 2. dev stru liter to s ther 3. enh info 4. dev utilis 5. dev jart	mpleting the course students should be evidence the relopment of their ability to analyse published terial in the biomedical sciences – with a ticular emphasis on medical microbiology relopment of their ability to present a retured argument supported by the published rature – including where appropriate the ability tate and defend an opinion in topics where re is no clear right or wrong answer ancement of their use of appropriate tration technology to seek and analyse rmation relopment of their ability to analyse data sets sing statistics in an appropriate manner elopment of their ability to undertake ependent and self-directed learning – with a ticular emphasis on medical microbiology	Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject. Assessment: Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5. Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module. Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research
		Methods and Practical Skills module.
	C Subject, Professior	al and Practical Skills
C Subj On com evidenc 1. thei	ect, Professional and Practical Skills ppleting the course students should be able to e r development as independent researchers	Teaching/learning methods and strategies: Acquisition of 1, 2, 4 & 5 are through the Research Project in addition to tutorials with project supervisors. Research Methods and Practical Skills
2. thei thro fielo 3. dev	r understanding of the research process bugh execution of a research project in the d of medical microbiology relopment of their specific topics of interest by	lectures and workshops also support the Project. Skills 3 & 4 are acquired through lectures, tutorials and oral seminars.
spe thei 4. thei a ra	cialising in medical microbiology in relation to r subject or career aspirations r ability to critically evaluate information from ange of sources relevant to biomedical	Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject
scie mic	ences, with an emphasis on medical robiology.	Assessment:
5. thei stuc den ethi	r ability to apply practical approaches to the dy of selected aspects of biomedicine and nonstrate an awareness of health and safety, cs and good laboratory practices	Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.

Part 3a: Learning Outcomes of the Program	me
	essays, oral seminars and examination.
D Transferable Skills	s and other attributes
D Transferable Skills and other attributes	Teaching/learning methods and strategies:
 communicate effectively using a variety of methods critically analyse data arising from various means of biological inquiry 	Skills 1 and 2 are developed throughout all the core and specialist modules, particularly during tutorial sessions. Different assessment strategies also enable development of these key skills. Research Methods is a core module which specifically develops analytical skills for use in the Research Project.
	Assessment: A range of assessment strategies are utilised (skills 1 & 2) including essay, concise abstract summary, research critique, poster presentation, oral seminar and research project. Research Methods and Practical Skills module in particular assesses analytical skills involved with biological and statistical inquiry.

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements, interim award requirements, module diet, including compulsory and optional modules

Со	mpulsory Modules	Optional modules	Awards
•	Current Issues in Biomedical Sciences USSKL3-30-M	None	Interim Awards Credit requirements: PGCert Biomedicine (60 M level credits)
•	Research Methods and Practical Skills USSKM3-30-M		PGDip Biomedicine (120 M level credits <u>not</u> including the project module)
•	Research Project USSJ6C-60-M		PGDip Biomedical Science (120 M level credits – <u>60 of</u>
•	Medical Microbiology USSJN5-30-M		which are from the project module)
•	Antimicrobial Agents USSKQ3-30-M		
			Full Awards:
			MSc Biomedical Science (Medical Microbiology) (180 M level credits from within the programme)

Assessment Map											
The programme encompasses a range of assessment methods including; essays, practical reports, oral presentations and examinations. These are summarised in the following assessment map, and detailed in the module specifications:											
Assessment Map for MSc Biomedical Science (Medical Microbiology)											
			1	1	Ту	pe of As	sessme	ent*	1	1	1
		Unseen Written Exam	Unseen Written Exam Open Book Written Exam In-class Written Test Practical Exam Practical Skills Assessment Practical Skills Assessment Oral assessment and/or presentation Written Assignment Written Assignment Dissertation Dissertation								
Compulsory	USSKL3-30-M						A (50)	B (50)			
Modules	USSKM3-30-M	A (35)						B (65)			
	USSJ6C-60-M						A (25)	A (15)	A (60)		
	USSJN5-30-M	A (50)						B (50)			
	USSKQ3-30-M	A (50)						B (50)			
*Assessme Coursework	nt should be show as indicated by	wn in te the col	erms o our co	f eithe ding a	r <mark>Writte</mark> bove.	en Exa	ms, Pra	actical	exam	s, or	

Title of Primary Award	MSc Biomedical Science				
Highest Award Title of additional target	MSc Biomedical Science (Cellular Pathology)				
Interim Award Titles for additional target	PGDip Biomedical Science (where the project and 60 other credits achieved) PGDip Biomedicine (where 120 credits taught content achieved) PGCert Biomedicine (where any 60 credits achieved)				
Codes	UCAS:	JACS:			
	ISIS2:C9001	HESA:			
Relevant QAA Subject Benchmark Statements	QAA Framework (2001 & 2008)				
CAP Approval Date	29 th May 2012				
Valid until Date	May 2018				
Version	1				

Part 3a: Learning Outcomes of the Programme

Le	arning Outcomes	Teaching, Learning and Assessment Strategies							
	A Knowledge and Understanding								
A١	Knowledge and understanding of	Teaching/learning methods and strategies:							
1.	a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline cellular pathology	Acquisition of 1 is through lectures, tutorials, student- led seminars and poster presentations. External expert lecturers provide specialist subject lectures.							
2. 3.	the contribution of research and scholarship in biomedical science. relevant methods, both theoretical and laboratory based, used in research within the	Additional support is provided through specifically designed blended learning material undertaken via UWEonline.							
4.	 discipline – with a focus on cellular pathology research and research practice that has the potential for dissemination to the wider scientific community 	Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.							
		Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject							
		Assessment:							
		Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).							

Part 3a: Learning Outcomes of the Programme								
	Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).							
	All modules include a controlled conditions assessment							
B Intellec	tual Skills							
B Intellectual Skills	l eaching/learning methods and strategies:							
 On completing the course students should be able to evidence the development of their ability to analyse published material in the biomedical sciences – with an emphasis in cellular pathology development of their ability to present a structured argument supported by the published literature – including where appropriate the ability to state and defend an opinion in topics where there is no clear right or wrong answer enhancement of their ability to analyse data sets information technology to seek and analyse information development of their ability to undertake independent and self-directed learning, with an emphasis on cellular pathology 	Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject. Assessment: Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5. Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module. Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.							
C Subject, Professior	al and Practical Skills							
 C Subject, Professional and Practical Skills On completing the course students should be able to evidence 1. their development as independent researchers 2. their understanding of the research process through execution of a research project in the sub-discipline of cellular pathology 3. development of their specific topics of interest by specialising in cellular pathology in relation to their subject or career aspirations 4. their ability to critically evaluate information from a range of sources relevant to biomedical sciences. 5. their ability to apply practical approaches to the 	Teaching/learning methods and strategies: Acquisition of 1, 2, 4 & 5 are through the Research Project in addition to tutorials with project supervisors. Research Methods and Practical Skills lectures and workshops also support the Project. Skills 3 & 4 are acquired through lectures, tutorials and oral seminars. Throughout, the learner undertakes independent reading both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject Assessment:							
study of selected aspects of biomedicine and demonstrate an awareness of health and safety, ethics and good laboratory practices	Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce. Additionally, skills 3 & 4 are assessed through							

	Part 3a: Learning Outcomes of the Programme							
		essays, oral seminars and examination.						
	D Transferable Skills and other attributes							
D	Transferable Skills and other attributes	Teaching/learning methods and strategies:						
1. 2.	communicate effectively using a variety of methods critically analyse data arising from various means of biological inquiry	Skills 1 and 2 are developed throughout all the core and specialist modules, particularly during tutorial sessions. Different assessment strategies also enable development of these key skills. Research Methods is a core module which specifically develops analytical skills for use in the Research Project.						
		Assessment: A range of assessment strategies are utilised (skills 1 & 2) including essay, concise abstract summary, research critique, poster presentation, oral seminar and research project. Research Methods and Practical Skills module in particular assesses analytical skills involved with biological and statistical inquiry.						

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements, interim award requirements, module diet, including compulsory and optional modules

Compulsory Modules		Optional modules	Awards			
•	Current Issues in Biomedical	None	Interim Awards			
	Sciences		Credit requirements:			
	USSKL3-30-M		PGCert Biomedicine			
•	Research Methods and		(60 M level credits)			
	Practical Skills		PGDip Biomedicine			
	USSKM3-30-M		(120 M level credits not			
			including the project module)			
•	Research Project					
	022700-00-101		PGDip Biomedical Science			
	Collular Pathology		(120 Milevel credits – <u>60 of</u>			
•	USS I6F-30-M		module)			
•	Cancer Biology & Genetics					
	USSKN3-30-M		Full Awards:			
			MSc Biomedical Science			
			(Cellular Pathology)			
			(180 M level credits from within			
			the programme)			

Assessment Map												
The programme encompasses a range of assessment methods including; essays, practical reports, oral presentations and examinations. These are summarised in the following assessment map, and detailed in the module specifications:												
	Assessment Map for MSc Biomedical Science (Cellular Pathology)											
			Type of Assessment*									
		Unseen Written Exam	Open Book Written Exam	In-class Written Test	Practical Exam	Practical Skills Assessment	Oral assessment and/or presentation	Written Assignment	Report / Project	Dissertation	Portfolio	
Compulsorv	USSKL3-30-M						A (50)	B (50)				
Modules	USSKM3-30-M	A (35)					(/	B (65)				
	USSJ6C-60-M						A (25)	A (15)	A (60)			
	USSJ6F-30-M	A (50)						B (50)	·····.	• •		
	USSKN3-30-M	A (50)					B (25)	B (25)				
*Assessment indicated by th	should be shown in ne colour coding ab	terms ove.	of eithe	er Writt	en Exa	ıms, Pr	actical	exams	, or <mark>C</mark> c	oursew	ork as	