

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 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
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A Knowledge and Understanding

A Knowledge and understanding of

1. a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the discipline
2. the contribution of research and scholarship in biomedical science.
3. relevant methods, both theoretical and laboratory based, used in research within the discipline
4. 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, 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).

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 Programme	
B Intellectual Skills	
<p>B Intellectual Skills</p> <p>On completing the course students should be able to evidence the</p> <ol style="list-style-type: none"> 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 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 	<p>Teaching/learning methods and strategies:</p> <p>Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills.</p> <p>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.</p> <p>Assessment:</p> <p>Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.</p> <p>Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.</p> <p>Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.</p>
C Subject, Professional and Practical Skills	
<p>C Subject, Professional and Practical Skills</p> <p>On completing the course students should be able to evidence</p> <ol style="list-style-type: none"> 1. their development as independent researchers 2. their understanding of the research process through execution of a research project 3. development of their specific topics of interest by specialising within their awards 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 	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>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</p> <p>Assessment:</p> <p>Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.</p> <p>Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.</p>
D Transferable Skills and other attributes	
<p>D Transferable Skills and other attributes</p> <ol style="list-style-type: none"> 1. communicate effectively using a variety of 	<p>Teaching/learning methods and strategies:</p> <p>Skills 1 and 2 are developed throughout all the core</p>

Part 3: Learning Outcomes of the Programme

<p>2. methods critically analyse data arising from various means of biological inquiry</p>	<p>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.</p>
	<p>Assessment:</p> <p>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.</p>

Part 4: Programme Structure

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	Specialist Subject Optional modules	Awards
<ul style="list-style-type: none"> • Current Issues in Biomedical Sciences USSKL3-30-M • Research Methods and Practical Skills USSKM3-30-M • Research Project USSJ6C-60-M 	<p>Two from:</p> <ul style="list-style-type: none"> • Cellular Pathology USSJ6F-30-M • Clinical Biochemistry USSJ6E-30-M • Haematology & Transfusion USSJNC-30-M • Medical Microbiology USSJN5-30-M • Applied Immunology USSJ6A-30-M • Antimicrobial Agents USSKQ3-30-M • Cancer Biology & Genetics USSKN3-30-M • Medical Genetics USSKP3-30-M 	<p>Interim Awards</p> <p>Credit requirements:</p> <p>PGCert Biomedicine (60 M level credits)</p> <p>PGDip Biomedicine (120 M level credits not including the project module)</p> <p>PGDip Biomedical Science (120 M level credits – 60 of which are from the project module)</p> <p>Full Awards:</p> <p>MSc Biomedical Science (180 M level credits from within the programme)</p> <p>MSc Biomedical Science (with named route) (180 credits – as detailed in individual pathways detailed later in this document)</p> <p>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.</p>

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:

Assessment Map for MSc Biomedical Science

		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 Modules for all routes	USSKL3-30-M						A (50)	B (50)			
	USSKM3-30-M	A (35)						B (65)			
	USSJ6C-60-M						A (25)	A (15)	A (60)		
Optional (Specialist) 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	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 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 (<http://rae.ac.uk/results/outstore/RAEOutcomeF.pdf>). 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_THE_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 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 inter-relationships 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 must 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
Highest Award Title of additional target	MSc Biomedical Science (Blood Science)
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: ISIS2:C9001
	JACS: 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

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	
<p>A Knowledge and understanding of</p> <ol style="list-style-type: none"> 1. 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) 2. the contribution of research and scholarship in biomedical science. 3. relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline 4. research and research practice that has the potential for dissemination to the wider scientific community 	<p>Teaching/learning methods and strategies:</p> <p>Acquisition of 1 is through lectures, tutorials, student-led seminars and poster presentations. External expert lecturers provide specialist subject lectures.</p> <p>Additional support is provided through specifically designed blended learning material undertaken via UWEonline.</p> <p>Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.</p> <p>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</p> <p>Assessment:</p> <p>Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).</p>

Part 3a: Learning Outcomes of the Programme	
	<p>Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).</p> <p>All modules include a controlled conditions assessment</p>
B Intellectual Skills	
<p>B Intellectual Skills</p> <p>On completing the course students should be able to evidence the</p> <ol style="list-style-type: none"> 1. development of their ability to analyse published material in the biomedical sciences, particularly in the sub-discipline of blood sciences 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 	<p>Teaching/learning methods and strategies:</p> <p>Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills.</p> <p>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.</p> <p>Assessment:</p> <p>Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.</p> <p>Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.</p> <p>Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.</p>
C Subject, Professional and Practical Skills	
<p>C Subject, Professional and Practical Skills</p> <p>On completing the course students should be able to evidence</p> <ol style="list-style-type: none"> 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 	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>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</p> <p>Assessment:</p> <p>Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce – students on the blood science pathway will undertake their</p>

Part 3a: Learning Outcomes of the Programme	
	<p>research within this sub-discipline</p> <p>Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.</p>
D Transferable Skills and other attributes	
<p>D Transferable Skills and other attributes</p> <ol style="list-style-type: none"> 1. communicate effectively using a variety of methods 2. critically analyse data arising from various means of biological inquiry 	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>Assessment:</p> <p>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.</p>

Part 4: Programme Structure

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

Part-time variant available by accumulation of the credit for the correct combination of modules

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 (Blood Science)

		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 Modules	USSKL3-30-M						A (50)	B (50)			
	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)			

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

SPECIFICATION FOR ADDITIONAL AWARD TITLE

Title of Primary Award	MSc Biomedical Science	
Highest Award Title of additional target	MSc Biomedical Science (Haematology)	
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: ISIS2:C9001	JACS: 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

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	
<p>A Knowledge and understanding of</p> <ol style="list-style-type: none"> 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 	<p>Teaching/learning methods and strategies:</p> <p>Acquisition of 1 is through lectures, tutorials, student-led seminars and poster presentations. External expert lecturers provide specialist subject lectures.</p> <p>Additional support is provided through specifically designed blended learning material undertaken via UWEonline.</p> <p>Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.</p> <p>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</p> <p>Assessment:</p> <p>Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).</p> <p>Testing of research practice and understanding is through the assessed project proposal, project report</p>

Part 3a: Learning Outcomes of the Programme	
	<p>and oral viva examination (3&4).</p> <p>All modules include a controlled conditions assessment</p>
B Intellectual Skills	
<p>B Intellectual Skills</p> <p>On completing the course students should be able to evidence the</p> <ol style="list-style-type: none"> 1. development of their ability to analyse published material in the biomedical sciences, particularly within the field of haematology 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 	<p>Teaching/learning methods and strategies:</p> <p>Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills.</p> <p>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.</p> <p>Assessment:</p> <p>Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.</p> <p>Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.</p> <p>Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.</p>
C Subject, Professional and Practical Skills	
<p>C Subject, Professional and Practical Skills</p> <p>On completing the course students should be able to evidence</p> <ol style="list-style-type: none"> 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 	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>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</p> <p>Assessment:</p> <p>Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.</p> <p>Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.</p>

Part 3a: Learning Outcomes of the Programme

D Transferable Skills and other attributes

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1. communicate effectively using a variety of methods
2. critically analyse data arising from various means of biological inquiry

Teaching/learning methods and strategies:

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.

Part 4: Programme Structure

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
<ul style="list-style-type: none"> • Current Issues in Biomedical Sciences USSKL3-30-M • Research Methods and Practical Skills USSKM3-30-M • Research Project USSJ6C-60-M • Haematology & Transfusion USSJNC-30-M 	<p>One from:</p> <ul style="list-style-type: none"> • Cellular Pathology USSJ6F-30-M • Clinical Biochemistry USSJ6E-30-M • Medical Microbiology USSJN5-30-M • Applied Immunology USSJ6A-30-M • Antimicrobial Agents USSKQ3-30-M • Cancer Biology & Genetics USSKN3-30-M • Medical Genetics USSKP3-30-M 	<p>Interim Awards</p> <p>Credit requirements: PGCert Biomedicine (60 M level credits)</p> <p>PGDip Biomedicine (120 M level credits not including the project module)</p> <p>PGDip Biomedical Science (120 M level credits – 60 of which are from the project module)</p> <p>Full Awards:</p> <p>MSc Biomedical Science (Haematology) (180 M level credits from within the programme)</p>

* 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

Part-time variant available by accumulation of the credit for the correct combination of modules

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 (Haematology)

		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 Modules	USSKL3-30-M						A (50)	B (50)			
	USSKM3-30-M	A (35)						B (65)			
	USSJ6C-60-M						A (25)	A (15)	A (60)		
	USSJNC-30-M	A (50)						B (50)			
Optional Modules	USSJ6F-30-M	A (50)						B (50)			
	USSJ6E-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 should be shown in terms of either **Written Exams**, **Practical exams**, or **Coursework** as indicated by the colour coding above.

SPECIFICATION FOR ADDITIONAL AWARD TITLE

Title of Primary Award	MSc Biomedical Science	
Highest Award Title of additional target	MSc Biomedical Science (Clinical Biochemistry)	
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: ISIS2:C9001	JACS: 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

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	
<p>A Knowledge and understanding of</p> <ol style="list-style-type: none"> 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 biomedical science. relevant methods, both theoretical and laboratory based, used in research within the discipline with an emphasis of clinical biochemistry research and research practice that has the potential for dissemination to the wider scientific community, with an emphasis of clinical biochemistry 	<p>Teaching/learning methods and strategies:</p> <p>Acquisition of 1 is through lectures, tutorials, student-led seminars and poster presentations. External expert lecturers provide specialist subject lectures.</p> <p>Additional support is provided through specifically designed blended learning material undertaken via UWEonline.</p> <p>Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.</p> <p>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</p> <p>Assessment:</p> <p>Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).</p>

Part 3a: Learning Outcomes of the Programme	
	<p>Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).</p> <p>All modules include a controlled conditions assessment</p>
B Intellectual Skills	
<p>B Intellectual Skills</p> <p>On completing the course students should be able to evidence the</p> <ol style="list-style-type: none"> 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 	<p>Teaching/learning methods and strategies:</p> <p>Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills.</p> <p>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.</p> <p>Assessment:</p> <p>Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.</p> <p>Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.</p> <p>Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.</p>
C Subject, Professional and Practical Skills	
<p>C Subject, Professional and Practical Skills</p> <p>On completing the course students should be able to evidence</p> <ol style="list-style-type: none"> 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 	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>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</p> <p>Assessment:</p> <p>Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.</p> <p>Additionally, skills 3 & 4 are assessed through essays, oral seminars and examination.</p>

Part 3a: Learning Outcomes of the Programme

D Transferable Skills and other attributes

<p>D Transferable Skills and other attributes</p> <p>3. communicate effectively using a variety of methods</p> <p>4. critically analyse data arising from various means of biological inquiry</p>	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>Assessment:</p> <p>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.</p>
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Part 4: Programme Structure

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
<ul style="list-style-type: none"> • Current Issues in Biomedical Sciences USSKL3-30-M • Research Methods and Practical Skills USSKM3-30-M • Research Project USSJ6C-60-M • Clinical Biochemistry USSJ6E-30-M 	<p>One from:</p> <ul style="list-style-type: none"> • Cellular Pathology USSJ6F-30-M • Haematology & Transfusion USSJNC-30-M • Medical Microbiology USSJN5-30-M • Applied Immunology USSJ6A-30-M • Antimicrobial Agents USSKQ3-30-M • Cancer Biology & Genetics USSKN3-30-M • Medical Genetics USSKP3-30-M 	<p>Interim Awards</p> <p>Credit requirements: PGCert Biomedicine (60 M level credits)</p> <p>PGDip Biomedicine (120 M level credits not including the project module)</p> <p>PGDip Biomedical Science (120 M level credits – 60 of which are from the project module)</p> <p>Full Awards:</p> <p>MSc Biomedical Science (Clinical Biochemistry) (180 M level credits from within the programme)</p>

* 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

Part-time variant available by accumulation of the credit for the correct combination of modules

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 (Clinical Biochemistry)

		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 Modules	USSKL3-30-M						A (50)	B (50)			
	USSKM3-30-M	A (35)						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)				
	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.

SPECIFICATION FOR ADDITIONAL AWARD TITLE

Title of Primary Award	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: ISIS2:C9001	JACS: 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

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	
<p>A Knowledge and understanding of</p> <ol style="list-style-type: none"> 1. a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline of immunology 2. the contribution of research and scholarship in biomedical science, with particular reference to immunology. 3. relevant methods, both theoretical and laboratory based, used in research within the discipline and sub-discipline of immunology 4. research and research practice that has the potential for dissemination to the wider scientific community 	<p>Teaching/learning methods and strategies:</p> <p>Acquisition of 1 is through lectures, tutorials, student-led seminars and poster presentations. External expert lecturers provide specialist subject lectures.</p> <p>Additional support is provided through specifically designed blended learning material undertaken via UWEonline.</p> <p>Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.</p> <p>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</p> <p>Assessment:</p> <p>Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).</p>

Part 3a: Learning Outcomes of the Programme	
	<p>Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).</p> <p>All modules include a controlled conditions assessment</p>
B Intellectual Skills	
<p>B Intellectual Skills</p> <p>On completing the course students should be able to evidence the</p> <ol style="list-style-type: none"> 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 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 	<p>Teaching/learning methods and strategies:</p> <p>Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills.</p> <p>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.</p> <p>Assessment:</p> <p>Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.</p> <p>Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.</p> <p>Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.</p>
C Subject, Professional and Practical Skills	
<p>C Subject, Professional and Practical Skills</p> <p>On completing the course students should be able to evidence</p> <ol style="list-style-type: none"> 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 study of selected aspects of biomedicine and demonstrate an awareness of health and safety, ethics and good laboratory practices 	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>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</p> <p>Assessment:</p> <p>Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.</p>

Part 3a: Learning Outcomes of the Programme	
	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:
<ol style="list-style-type: none"> 1. communicate effectively using a variety of methods 2. critically analyse data arising from various means of biological inquiry 	<p>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.</p>
	Assessment:
	<p>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.</p>

Part 4: Programme Structure

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
<ul style="list-style-type: none"> • Current Issues in Biomedical Sciences USSKL3-30-M • Research Methods and Practical Skills USSKM3-30-M • Research Project USSJ6C-60-M • Applied Immunology USSJ6A-30-M 	<p>One from:</p> <ul style="list-style-type: none"> • Cellular Pathology USSJ6F-30-M • Clinical Biochemistry USSJ6E-30-M • Haematology & Transfusion USSJNC-30-M • Medical Microbiology USSJN5-30-M • Antimicrobial Agents USSKQ3-30-M • Cancer Biology & Genetics USSKN3-30-M • Medical Genetics USSKP3-30-M 	<p>Interim Awards</p> <p>Credit requirements: PGCert Biomedicine (60 M level credits)</p> <p>PGDip Biomedicine (120 M level credits not including the project module)</p> <p>PGDip Biomedical Science (120 M level credits – 60 of which are from the project module)</p> <p>Full Awards:</p> <p>MSc Biomedical Science (Immunology) (180 M level credits from within the programme)</p>

* 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

Part-time variant available by accumulation of the credit for the correct combination of modules

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 (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 Modules	USSKL3-30-M						A (50)	B (50)			
	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	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 should be shown in terms of either **Written Exams**, **Practical exams**, or **Coursework** as indicated by the colour coding above.

SPECIFICATION FOR ADDITIONAL AWARD TITLE

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: ISIS2:C9001	JACS: 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

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	
<p>A Knowledge and understanding of</p> <ol style="list-style-type: none"> 1. a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline of medical microbiology 2. the contribution of research and scholarship in biomedical science. 3. relevant methods, both theoretical and laboratory based, used in research within the discipline, with a particular focus on medical microbiology 4. research and research practice that has the potential for dissemination to the wider scientific community 	<p>Teaching/learning methods and strategies:</p> <p>Acquisition of 1 is through lectures, tutorials, student-led seminars and poster presentations. External expert lecturers provide specialist subject lectures.</p> <p>Additional support is provided through specifically designed blended learning material undertaken via UWEonline.</p> <p>Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.</p> <p>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</p> <p>Assessment:</p> <p>Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).</p>

Part 3a: Learning Outcomes of the Programme	
	<p>Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).</p> <p>All modules include a controlled conditions assessment</p>
B Intellectual Skills	
<p>B Intellectual Skills</p> <p>On completing the course students should be able to evidence the</p> <ol style="list-style-type: none"> 1. development of their ability to analyse published material in the biomedical sciences – with a particular emphasis on medical microbiology 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 – with a particular emphasis on medical microbiology 	<p>Teaching/learning methods and strategies:</p> <p>Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills.</p> <p>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.</p> <p>Assessment:</p> <p>Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.</p> <p>Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.</p> <p>Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.</p>
C Subject, Professional and Practical Skills	
<p>C Subject, Professional and Practical Skills</p> <p>On completing the course students should be able to evidence</p> <ol style="list-style-type: none"> 1. their development as independent researchers 2. their understanding of the research process through execution of a research project in the field of medical microbiology 3. development of their specific topics of interest by specialising in medical microbiology in relation to their subject or career aspirations 4. their ability to critically evaluate information from a range of sources relevant to biomedical sciences, with an emphasis on medical microbiology. 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 	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>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</p> <p>Assessment:</p> <p>Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.</p> <p>Additionally, skills 3 & 4 are assessed through</p>

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:
<ol style="list-style-type: none"> 1. communicate effectively using a variety of methods 2. critically analyse data arising from various means of biological inquiry 	<p>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.</p>
	Assessment:
	<p>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.</p>

Part 4: Programme Structure

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

Part-time variant available by accumulation of the credit for the correct combination of modules

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)

		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 Modules	USSKL3-30-M						A (50)	B (50)			
	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)			

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

SPECIFICATION FOR ADDITIONAL AWARD TITLE

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: ISIS2:C9001	JACS: 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

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	
<p>A Knowledge and understanding of</p> <ol style="list-style-type: none"> 1. a broad biomedical science base with specific areas of deeper understanding relevant to specialised areas of the sub-discipline cellular pathology 2. the contribution of research and scholarship in biomedical science. 3. relevant methods, both theoretical and laboratory based, used in research within the discipline – with a focus on cellular pathology 4. research and research practice that has the potential for dissemination to the wider scientific community 	<p>Teaching/learning methods and strategies:</p> <p>Acquisition of 1 is through lectures, tutorials, student-led seminars and poster presentations. External expert lecturers provide specialist subject lectures.</p> <p>Additional support is provided through specifically designed blended learning material undertaken via UWEonline.</p> <p>Acquisition of 2, 3 and 4 is through specialist subject lectures and tutorials in addition to the Research Project.</p> <p>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</p> <p>Assessment:</p> <p>Testing of the knowledge base is through assessed coursework, through oral and poster presentation and through tasks undertaken under examination conditions (1-3).</p>

Part 3a: Learning Outcomes of the Programme	
	<p>Testing of research practice and understanding is through the assessed project proposal, project report and oral viva examination (3&4).</p> <p>All modules include a controlled conditions assessment</p>
B Intellectual Skills	
<p>B Intellectual Skills</p> <p>On completing the course students should be able to evidence the</p> <ol style="list-style-type: none"> 1. development of their ability to analyse published material in the biomedical sciences – with an emphasis in cellular pathology 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, with an emphasis on cellular pathology 	<p>Teaching/learning methods and strategies:</p> <p>Intellectual skills are developed through core and specialist subject lectures, tutorial groups and assessed seminars. The research project develops all aspects of intellectual skills.</p> <p>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.</p> <p>Assessment:</p> <p>Written assessments such as essays, critiques and review articles as well as oral presentations all assess skills 1-3 & 5.</p> <p>Skill 1 is also assessed under controlled conditions in the Research Methods and Practical Skills module.</p> <p>Skill 4 is assessed in the Research Project and also in the Data Analysis assessment in the Research Methods and Practical Skills module.</p>
C Subject, Professional and Practical Skills	
<p>C Subject, Professional and Practical Skills</p> <p>On completing the course students should be able to evidence</p> <ol style="list-style-type: none"> 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 study of selected aspects of biomedicine and demonstrate an awareness of health and safety, ethics and good laboratory practices 	<p>Teaching/learning methods and strategies:</p> <p>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.</p> <p>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</p> <p>Assessment:</p> <p>Skills 1, 2, 4 & 5 are primarily assessed through the Project proposal, report and viva voce.</p> <p>Additionally, skills 3 & 4 are assessed through</p>

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:
<ol style="list-style-type: none"> 1. communicate effectively using a variety of methods 2. critically analyse data arising from various means of biological inquiry 	<p>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.</p>
	Assessment:
	<p>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.</p>

Part 4: Programme Structure

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
<ul style="list-style-type: none"> • Current Issues in Biomedical Sciences USSKL3-30-M • Research Methods and Practical Skills USSKM3-30-M • Research Project USSJ6C-60-M • Cellular Pathology USSJ6F-30-M • Cancer Biology & Genetics USSKN3-30-M 	None	<p>Interim Awards</p> <p>Credit requirements: PGCert Biomedicine (60 M level credits)</p> <p>PGDip Biomedicine (120 M level credits not including the project module)</p> <p>PGDip Biomedical Science (120 M level credits – <u>60 of which are from the project module</u>)</p> <p>Full Awards:</p> <p>MSc Biomedical Science (Cellular Pathology) (180 M level credits from within the programme)</p>

Part-time variant available by accumulation of the credit for the correct combination of modules

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
Compulsory Modules	USSKL3-30-M						A (50)	B (50)			
	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 should be shown in terms of either **Written Exams**, **Practical exams**, or **Coursework** as indicated by the colour coding above.