

**PROGRAMME SPECIFICATION
(2013-14)**

Programme Title	MSc Biomedical Sciences
UCAS/JACS Code	N/A
School/Subject Area	LHS/Biology
Final Award	MSc
Interim Award(s)	Diploma Certificate
Mode(s) of Study	FT
Normal Length of Programme	1 year FT
Total Credits	180 – Masters
Programme Accredited By	
Dates Programme Specification Written and Revised	March 2006 Revised July 2006 Revised May 2012
Educational Aims of the Programme	<p>Programme aims: The Postgraduate taught MSc Biomedical Sciences programme aims to:</p> <ol style="list-style-type: none"> 1. Provide students with a high level of scientific knowledge and understanding of disease processes from the molecular to the body/systems level. 2. Enable students to develop an informed and critical appreciation of recent scientific developments in relation to diagnostic laboratory pathology and research. 3. Enable students to gain, through a research project, additional specialist knowledge and practical expertise. 4. Develop students who will be able to contribute to a broad spectrum of career opportunities spanning academic, commercial and industrial applications of biomedical sciences.
Relevant Subject Benchmark Statements and other current External and Internal Strategies, Policies or Research used to inform programme outcomes	UK Quality Code Part A.1 (2011).

TAUGHT STAGE

Programme Structures and Requirements: Levels, Modules and Credits

Module Title	Credits	Level	Module Code	Core/Option	Condoneable Y/N	Pre-requisite(s) Y/N
Immunology	20	7	BI4004	Core	Y	N
Human Disease	20	7	BI4005	Core	Y	N
Clinical and Molecular Endocrinology	20	7	BI4017	Core	Y	N
Research Proposal	10	7	BI4031	Core	Y	N
Research Methods-Professional Development and Communication Skills	10	7	BI4052	Core	Y	N
Toxicology	10	7	BI4053	Core	Y	N
Human Physiology	10	7	BI4055	Core	Y	N
Stem Cell and Tissue Engineering	20	7	BI4060	Core	Y	N
TOTAL	120					

DISSERTATION STAGE

Programme Structures and Requirements: Levels, Modules and Credits

Module Title	Credits	Level	Module Code	Core/Option	Condoneable Y/N	Pre-requisite(s) Y/N
Research Project	60	7	BI4032	Core	Y	N
TOTAL	60					

Programme Outcomes, Learning and Teaching and Assessment Strategies			
A. <u>Knowledge and Understanding</u>			
	On successful completion of their programme, students are expected to have knowledge and understanding of:	Learning, Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
		Learning and Teaching Methods	Assessment Methods
1	Biomedical aspects of the epidemiology, aetiology, pathophysiology and management of major diseases	Lectures, essay, CAL classes, seminar, and/or project	Examination Essay Seminar
2	Perceptions of endocrinology and aspects of signal transduction	Lectures, reports, practicals and data interpretation	Class Test Data interpretation exercise MCQs
3	The cellular and molecular basis of immunity and the functioning of the immune system in health and disease.	Lectures, practical, and/or project	Examination Practical coursework submission
4	Theories of occupational, mechanistic and forensic toxicology.	Lectures, practical	Examination
5	Concepts of stem cells in research and medicine	Lectures	Examination Essay
6	Ability to recognise and address ethical issues relevant to conducting research. Potential sources and techniques used for obtaining research funding. The importance of communication skills to professional development	Seminar Group Discussion Directed and independent study in both individual and group formats	Ethics Proposal Mock grant Oral Interview Written CV
7	The necessary constituents and presentation style for written and oral academic presentations	Seminar Group discussion Directed and independent study at both the individual and group level	Research Abstract Poster Presentation Research proposal Research project
8	The requirements and processes involved in publishing research	Seminar Group discussion Directed and independent study at both the individual and group level	Research Abstract Research proposal Research project

B. Intellectual Skills			
	On successful completion of their programme, students are expected to be able to:	Learning, Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
		Learning and Teaching Methods	Assessment Methods
1	Synthesise knowledge from a variety of disciplines	Lectures Essay Seminars	Examination Essay Seminar Practical Reports
2	Critically analyse the differences in biochemical processes between the host and infectious organisms or cancer cells.	Lectures and seminars Lectures, seminar, practicals, project	Examination Essay Seminar
3	Identify and develop appropriate methods to be used and data to be acquired	Practicals, project	Examination Practical reports Seminar
4	Use and apply good Laboratory Practice	Practicals, project	Practical reports
5	Analyse data and apply statistics	Discussions with supervisor during extended project	Practical reports
6	Critically analyse one's own and others' work		Poster presentation Project report (incorporating literature review)
7	Critically read and evaluate scientific literature.	Seminar Project Lecture, group discussion, Directed and independent study at an individual level	Essay Research project Research proposal Research Abstract Poster Presentation

C. Professional Skills			
	On successful completion of their programme, students are expected to be able to:	Learning, Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
		Learning and Teaching Methods	Assessment Methods
1	Communicate effectively to an expert and lay audience, in both written and spoken terms	Seminars and group discussions Project	Submitted coursework Poster presentation Project report
2	Demonstrate practical ability at basic and specialised laboratory techniques	Laboratory sessions Project	Submitted coursework Project report
3	IT skills	Project	Poster presentation Project report Submitted coursework

D. Transferable Skills			
	On successful completion of their programme, students are expected to show:	Learning, Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
		Learning and Teaching Methods	Assessment Methods
1	Effective written communication	Essay Lecture, group discussion, directed and independent study at an individual level, project	Examination Essay Project report Poster presentation Ethics proposal Written CV Research Abstract Seminar
2	Effective oral communication	Seminar Lecture, group discussion, directed and independent study at an individual level	Assessed in submitted coursework, including poster and project
3	Independent study, including good time management	Directed reading (all modules and project).	
5	IT Skills / PowerPoint presentation	Seminar Group discussion Independent Study	

Entry Requirements	Applicants must hold at least a 2 nd class honours degree in a Biological Science subject or, when outside the UK, a degree or qualification deemed to be at least of equivalent standing. Students whose first language is not English must have a minimum IELTS score of 6.5 overall, with no score below 6.0.
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Programme Regulations	The programme is governed by the General Regulations for Postgraduate Taught Programmes.
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<p>General Regulations (http://www1.aston.ac.uk/registry/for-staff/regsandpolicies/general-regulations/) and the Regulations for the programme (above) take precedence over other information sources such as student handbooks if there is a conflict. If there is a conflict between General Regulations and Programme Regulations then General Regulations take precedence unless an exemption has been approved.</p>
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Further Information	
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This specification provides a concise summary of the main features of the programme and the threshold learning outcomes that a student might normally be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. **The individual modules included in the programme may differ from those listed in this programme specification as our programmes are continuously reviewed.** Information on admissions requirements and career opportunities is available in the relevant prospectus. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the appropriate module specifications and programme handbook(s) which are available to students on enrolment.