Aston University

PROGRAMME SPECIFICATION

(2013-14)

Programme Title	MBiol
UCAS/JACS Code	School of Life & Health Sciences/Biology C100
School/Subject Area	LHS/Biology
Final Award	Certificate of Higher Education [Stage 1] Diploma of Higher Education [Stage 1&2]
Interim Award(s)	Full Time Sandwich (optional)
Mode(s) of Study	Four Year [Full-time] Five Years [Sandwich]
Normal Length of Programme	480 [Full-time] 600 [Sandwich]
Total Credits	The Society of Biology is currently formulating and expanding its accreditation agenda. This programme is targeted at being eligible for accreditation by the Society of Biology in the future.
Programme Accredited By	
Dates Programme Specification Written and Revised	November 2011 Dr. P.J. Hanson July 2013 Dr. A.B. Vernallis

Educational Aims of the Programme	To provide high level knowledge and understanding of a wide area of the Biosciences with particular emphasis on topics relevant to human health and welfare. To produce graduates with a critical awareness of current issues and developments in the Biosciences. To develop student abilities to a high level in experimental design, practical competence, data handling and analysis. To produce graduates skilled in problem solving and written and oral communication, and with an understanding of, and commitment to. independent learning and continuing professional development. To provide graduates with the knowledge and skills to gain employment as resear bioscientists.

Relevant Subject Benchmark Statements and other current External and Internal Strategies, Policies or Research used to inform programme outcomes	QAA Benchmark statement for Biosciences (2002) UK Quality Code Part A.1 (2011) Office for Life Sciences 'Life Sciences Blueprint' (2009) QAA Master's degree characteristics (2010) Office for Life Sciences 'Delivering the Blueprint' (2010) Society of Biology Accreditation Handbook (2011)

STAGE 1

Programme Structures and Requirements: Levels, Modules and Credits						
Module Title	Credits	Level	Module Code	Core/Option	Condoneable Y/N	Pre-requisite(s) Y/N
Biology Key Skills	10	4	BY1SK1	Core	Y	N
Biochemistry	20	4	BY1BC1	Core	Y	N
Physiology	20	4	PH1CL1	Core	Y	N
Microbiology I	20	4	BY1MI1	Core	Y	N
Cell Biology	10	4	BY1CB1	Core	Y	N
Inheritance and Population Genetics	10	4	BY1GN1	Core	Y	N
Molecular Biology	10	4	BY1MB1	Core	Y	N
Introductory Immunology	10	4	BY1IM1	Core	Y	N
Development and Human Anatomy	10	4	BY1DA1	Core	Y	N
TOTAL	120					

STAGE 2

Programme Structures and Requirements: Levels, Modules and Credits						
Module Title	Credits	Level	Module Code	Core/Option	Condoneable Y/N	Pre-requisite(s) Y/N
Microbiology II	10	5	BY2MI1	Core	Y	Y
Immunology	20	5	BY2 IM1	Core	Y	Y
Applied Microbial Technology	10	5	BY2AM1	Core	Y	Y
Nutrition and Dietetics	10	5	BY2 NU1	Core	Y	Y
Molecular Genetics	10	5	BY2MB1	Core	Y	Y
Metabolism	10	5	BY2BC1	Core	Y	Y
Molecular Pathology	10	5	BY2PA1	Core	Y	Y
Endocrinology	10	5	BY2EN2	Core	Y	Y
Biomedical Key Skills II	20	5	BY2KS2	Core	Y	Y
Biomedical Technology	10	5	BY2BT2	Core	Y	Y
TOTAL	120					

STAGE 3

Programme Structures and Requirements: Levels, Modules and Credits						
Module Title	Credits	Level	Module Code	Core/Option	Condoneable Y/N	Pre-requisite(s) Y/N
Placement	120	P	BYPCO1	Option	N	Y
TOTAL	120					

STAGE 4

Programme Structures and Requirements: Levels, Modules and Credits						
Module Title	Credits	Level	Module Code	Core/Option	Condoneable Y/N	Pre-requisite(s) Y/N
Master of Biology Stage III Research Project	30	6	BY3PR3	CORE	N	Y
Immunology	10	6	BY3IM1	CORE	Y	Y
Applied Molecular Biology	10	6	BY3MB1	CORE	Y	Y
Bioethics	10	6	BY3BE1	CORE	Y	N
Biology Key Skills III	40	6	BY3 KS3	CORE	N	Y
*Plus 20 credits from the following modules one of which must have practical available **						
Human Physiology *	10	6	BY3HP1	Option	Y	Y
Medical Biochemistry*	10	6	BY3BC1	Option	Y	Y
Cell Biology*	10	6	BY3CB1	Option	Y	Y
Toxicology	10	6	BY3TO1	Option	Y	Y
Cell Biology of Cancer Metastasis*	10	6	BY3CC1	Option	Y	Y
Food Safety and Hygiene*	10	6	BY3FH1	Option	Y	Y
Clinical Microbiology & Infectious Disease	10	6	BY3CI1	Option	Y	Y
TOTAL	120					

STAGE F

Programme Structures and Requirements: Levels, Modules and Credits						
Module Title	Credits	Level	Module Code	Core/Option	Condoneable Y/N	Pre-requisite(s) Y/N
MBiol Laboratory Research Project (can be completed internally or externally)	60	7	BY4PR1	CORE	N	Y
MBiol Key Skills	20	7	BY4KS1	CORE	Y	Y
Plus 40 credits from the following						
Neurodegenerative disease	10	7	BY4ND1	Option	Y	Y
Obesity and Metabolic Disorders	10	7	BY4MD1	Option	Y	Y
Stem Cell Biology	10	7	BI4056	Option	Y	Y
Enzyme Technology	20	7	BI4021	Option	Y	Y
Oxidative Stress and Inflammatory Disease	10	7	BY4OX1	Option	Y	Y
ABC Transporters in Health and Disease	10	7	BY4AB1	Option	Y	Y
TOTAL	120					

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	Basic anatomy, physiology, biochemistry, microbiology, immunology, genetics, human nutrition, endocrinology and cell and molecular biology	Lectures Practical work Tutorials Group assignments Case studies Project work Directed learning Blackboard exercises	Closed book examinations Tests associated with lectures using the virtual learning environment, Blackboard. Practical Reports Virtual learning environment (Blackboard) quizzes associated with practical work Tutorial essays Seminar presentations Written case studies Project Report Project Poster Project Seminar Feedback on student's performance. Continuous reflective account of placement by the student. Oral presentation
2	Selective areas of the Biosciences at an advanced level		
3	Practical techniques used to conduct research in the Biosciences		
4	How pathogens, genetic or metabolic disorders can affect human health and welfare		
5	Moral and ethical issues associated with the Biosciences in the 21st century		
6	(Placement option only) the role of the Biologist in an industrial research or manufacturing environment		

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	Gather, analyse and synthesize information from the scientific literature and appropriate databases.	Practical work Tutorials Group assignments Case studies Project work Directed learning Workshops Blackboard exercises	Written examinations Essays Poster presentations Practical reports Project theses
2	Interpret data from their own studies and to report outcomes both verbally and in writing.		
3	Design experiments to test hypotheses.		
4	To formulate and solve problems		

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	To develop a high level of competency in the process and practice of research in a selected area of the Biosciences	Stage 4 project Final Year project	Project Report Project Poster Project Seminar

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	An ability to communicate effectively and appropriately by oral and written means to individuals and groups	Practical work Tutorials Group assignments Case studies Project work Directed learning Workshops Blackboard exercises	PowerPoint presentations (group and individual) Poster presentations Tutorial essays Closed book examination answers Virtual learning environment (Blackboard) quizzes on mathematics and statistics
2	Ability to work effectively as part of a team		
3	Ability to act independently, be responsible for their own time management, and operate reflective practice to identify their own learning requirements.		
4	Ability to use appropriate information and communications technology in their work		
5	Numeracy: competence in the use of mathematics to process data and to solve problems		

Entry Requirements	Students must satisfy the entry requirements: http://www1.aston.ac.uk/study/undergraduate/courses/school/lhs/mbiol/

Programme Regulations	Attendance at all practicals and tutorials as well as specified lectures is mandatory and will be monitored by register. Placement does not contribute to the degree classification. In order to progress from stage 2 to stage 3 or 4 of the MBiol degree programme students must obtain an overall mark for stage 2 ≥ 60%. A maximum of 20 credits may be condoned at each stage of study. Normally condonement may be applied only when the overall module mark is within 5% of the normal pass mark for the module and when the student's overall weighted mark for the stage is 50% or above. In calculating the overall weighted mark at the final stage of the MBiol programme 10% of the overall marks will be based on the overall performance in stage 2, 40% of the overall marks will be based on the overall performance in stage 4 and 50% of the total marks will be based on the overall performance in stage F. There shall be no ordinary degree. Transfers between programmes are with the agreement of the School's Associate Dean of Undergraduate programmes. For more information, please contact the Programm Director.
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.	

Further Information	

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.