

## **Programme Regulations: 2021/22**

### **Degree of Master of Research (MRes) offered in the Faculty of Medical Sciences:**

#### **General Programmes:**

**MRes Medical & Molecular Biosciences (4807F)**

#### **Subject Specialist Programmes:**

**MRes Immunobiology (4813F)**

**MRes Ageing and Health (4814F)**

**MRes Cancer (4816F)**

**MRes Regenerative Medicine and Stem Cells (4817F)**

**MRes Neuroscience (4818F)**

**MRes Biotechnology and Business Enterprise (4819F)**

**MRes Toxicology (4820F)**

**MRes Translational Medicine and Therapeutics (4822F)**

**MRes Animal Behaviour (4825F)**

**MRes Epidemiology (4826F)**

**MRes Transplantation (4829F)**

**MRes Molecular Microbiology (4828F)**

**MRes Medical Genetics (4827F)**

**MRes Evolution and Human Behaviour (4832F)**

**MRes Mitochondrial Biology and Medicine (4834F)**

**MRes Diabetes (4835F)**

**MRes Neuromuscular Diseases (4836F)**

**MRes Cardiovascular Science in Health and Disease (4837F)**

**MRes Healthy Musculoskeletal Ageing (CIMA) (4838F)**

**MRes Global Health (open only to intercalators), 4840F**

**MRes Molecular Cell Biology and Cell Signalling in Health and Disease, 4862F**

**MRes Clinical Exercise Physiology (open only to intercalators) 4863F**

**MRes Biofabrication and Bioprinting 4864F**

**MRes Drug Delivery and Nanomedicine 4869F**

#### **Notes:**

- (i) These programme regulations should be read in conjunction with the University's Research Degree Programme Regulations. All modules are offered subject to the constraints of the timetable and any restrictions on the number of students who may be taught that module. Modules may not all be offered each year.
- (ii) A core module is a module that a student must pass.
- (iii) A compulsory module is a module that a student is required to study.
- (iv) As a Research Masters degree, this programme reflects specific research themes and aims incorporating research preparation. The programme comprises at least 180 credits of which at least 80 credits will be dedicated to the research project/dissertation.
- (v) All modules are delivered in Linear mode unless otherwise stated as Block, eLearning or distance learning.

#### **1. Programme structure**

- (a) The programme is available for study in full-time mode only.
- (b) The period of study for full-time mode shall be one year starting in September.

(c) All candidates shall take the following compulsory modules:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
MMB8099	Project	100		50	50	7	Core	
MMB8100	Research Skills and Principles for the Biosciences	20	10	10		7		

(d) All subject specialist programme candidates must undertake their Project in the relevant area of specialisation and must obtain approval from the Degree Programme Director.

(e) All MRes Healthy Musculoskeletal Ageing (CIMA) candidates shall take the following additional compulsory modules:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
CHS8008	Biology of Ageing (E-Learning)	20	20			7		
MMB8042	Ageing in the integrated musculoskeletal system (E-Learning)	20	20			7		
MMB8049	Nutrition, physical activity and lifestyle interventions for Healthy Ageing (E-learning)	20	20			7		

(f) All MRes Animal Behaviour candidates shall take the following additional compulsory module:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
MMB8003	Biological Study of Behaviour	20	20			7		Core

(g) All MRes Evolution and Human Behaviour candidates shall take the following additional compulsory module:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
MMB8047	Evolution and Human Behaviour	20	20			7		Core

(h) All MRes Animal Behaviour and MRes Evolution and Human Behaviour candidates shall select 40 credits from the following list:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
MMB8003*	Biological Study of Behaviour	20	20			7		
MMB8047*	Evolution and Human Behaviour	20	20			7		

MMB8045	Applied Animal Behaviour and Welfare	20	20			7		
MMB8010	The Biological Basis of Psychiatric Illness & its Treatment	20	20			7		
MMB8038	Bioscience Research Development and Enterprise	20	20			7		
MMB8009	Clinical Epidemiology	20	20			7		
MMB8043	Comparative Cognition: Information Processing in Humans and Other Animals	20	20			7		
MMB8019	Sensory Systems	20	20			7		

\*Candidates who have taken one of the above as compulsory modules will need to choose from the remaining modules listed.

- (i) All MRes Biofabrication and Bioprinting candidates shall take the following additional compulsory module:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
MEC8051	Biomedical Additive Manufacture and Biofabrication	20	20			7		Core

- (j) All MRes Biofabrication and Bioprinting candidates shall select 40 credits from the following list:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
MMB8004	Ageing & Health	20	20			7		
MMB8038	Bioscience Research Development and Enterprise	20	20			7		
MMB8007	Cancer Studies	20	20			7		
MMB8022	Regenerative Medicine & Stem Cells	20	20			7		
MMB8032	Toxicology	20	20			7		
MMB8025	Transplantation Science	20	20			7		

- (k) All other candidates shall take 60 credits from the following selection of modules:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
MMB8003	The Biological Study of Behaviour	20	20			7		
MMB8004	Ageing & Health	20	20			7		

MMB8005	Experimental Medicine & Therapeutics	20	20			7		
MMB8006	Drug Discovery & Development	20	20			7		
MMB8007	Cancer Studies	20	20			7		
MMB8008	Chromosome Biology and Cell Cycle Control in Health and Disease	20	20			7		
MMB8009	Clinical Epidemiology	20	20			7		
MMB8010	The Biological Basis of Psychiatric Illness & its Treatment	20	20			7		
MMB8011	Biology of Ageing	20	20			7		
MMB8014	Genetics of Common Disease	20	20			7		
MMB8015	Applied Immunobiology of human disease	20	20			7		
MMB8016	Molecular Microbiology	20	20			7		
MMB8018	Research methods in protein science	20	20			7		
MMB8019	Sensory Systems	20	20			7		
MMB8020	Scientific Basis of Neurological Disease	20	20			7		
MMB8022	Regenerative Medicine & Stem Cells	20	20			7		
MMB8025	Transplantation Science	20	20			7		
MMB8030	Genetic Medicine	20	20			7		
MMB8031	Developmental Genetics	20	20			7		
MMB8032	Toxicology	20	20			7		
MMB8033	Surgical Anatomy	20	20			7		
MMB8034	Mitochondrial Biology and Medicine	20	20			7		
MMB8035	Diabetes	20	20			7		
MMB8036	Therapy Development for Rare Diseases: the neuromuscular paradigm	20	20			7		
MMB8037	Cardiovascular Science in Health and Disease	20	20			7		
MMB8038	Bioscience Research Development and Enterprise	20	20			7		
MMB8043	Comparative Cognition: Information Processing in Humans and Other Animals	20	20			7		
MMB8044	Exercise in Health and Disease	20	20			7		
MMB8045	Advanced Animal Behaviour and Welfare	20	20			7		
MMB8046	Drug Delivery and Nanomedicine	20	20			7		

MMB8047	Evolution and Human Behaviour	20	20			7		
MMB8048	Human Health and the Impact of Microbial Genomics	20	20			7		
MMB8050	Therapeutic Applications of Cell Signalling Pathways	20	20			7		
HSC8057	Global Health	20	20			7		
MEC8051	Biomedical Additive Manufacture and Biofabrication	20	20			7		
MEC8054	Contemporary Case Study in Biomedical Engineering	20	20			7		
CSC8325*	An Introduction to Bioinformatics Theory and Practice	10	10			7		
CSC8326*	Advanced Bioinformatics Theory and Practice	10	10			7		

\*Modules CSC8325 and CSC8326 must be taken together.

- (I) Candidates studying subject specialist programmes are required to undertake relevant subject knowledge modules and therefore when selecting modules from the list in (I) must include those stipulated in the list below. The subject specialist awards require at least one subject specialist module to be passed, therefore modules chosen from the list below are designated as CORE and candidates must obtain a pass in order to qualify for the award.

\*For programmes with multiple specialist modules, candidates must select the modules specified, however only one module will be deemed as core.

MRes Programme	Module
4813F Immunobiology	MMB8015
4814F Ageing & Health *	MMB8004 or MMB8011 Candidates must pass one of the above modules
4816F Cancer	MMB8007
4817F Regenerative Medicine & Stem Cells	MMB8022
4818F Neuroscience *	MMB8010, MMB8019 or MMB8020 Candidates must pass one of the above modules
4819F Biotechnology & Business Enterprise	MMB8038
4820F Toxicology	MMB8032
4822F Translational Medicine & Therapeutics *	MMB8005 and MMB8006 Candidates must pass one of the above modules
4826F Epidemiology	MMB8009
4827F Medical Genetics	MMB8030 plus either MMB8014 or MMB8031 Candidates must pass MMB8030
4828F Molecular Microbiology	MMB8016 and MMB8048 Candidates must pass one of the above modules
4829F Transplantation	MMB8025
4834F Mitochondrial Biology and Medicine	MMB8034

4835F Diabetes	MMB8035
4836F Neuromuscular Diseases	MMB8036
4837F Cardiovascular Science in Health and Disease	MMB8037
4840F Global Health	HSC8057
4862F Molecular Cell Biology and Cell Signalling in Health and Disease*	MMB8008 and MMB8050 Candidates must pass one of the above modules
MRes 4863F Clinical Exercise Physiology	MMB8044
MRes 4869F Drug Delivery and Nanomedicine	MMB8046

Note: Optional module choice for all programmes is dependent on the background of each individual and subject to DPD consultation and approval. Candidates may also be given the opportunity to select optional modules other than those prescribed in the programme regulations, subject to DPD consultation and approval.

## 2. Assessment Methods

Details of the assessment for each module are explained in the module outline.

## 3. Other

- (a) All candidates will be required to submit one electronic copy of their project dissertation for assessment. The dissertation must be word processed and adhere to the guidelines provided in the programme's project handbook.
- (b) All dissertations will be marked independently by an internal examiner and an external examiner. If the two examiners are unable to agree on individual marks that agree to within 10% or to reach a joint agreed mark then an additional independent external examiner will be appointed and this examiner's mark will be final (in compliance with the University Regulations for Research Masters Degree Programmes). Programme-specific regulations have priority over the requirement stated in the University regulations that the additional external examiner should not have sight of the original examiners' reports; the additional external examiner WILL have access to the reports and original marks. Programme-specific regulations also have priority over University regulations in that the student will NOT be informed about the appointment of the third examiner.
- (c) Candidates who fail a **taught module**, and who are eligible to resit, will be required to resit the failed components of that module only.
- (d) Candidates who fail to obtain the pass mark in the **project module** will be required to resubmit those components for which they have obtained a mark of less than 50 (i.e. a fail mark), and to obtain an **overall pass mark** for the project module. Candidates will be required to resubmit any assessed work within a period set by the Board of Examiners.
- (e) A Masters degree may be awarded with Merit or Distinction:
  - (i) A Masters degree may be awarded with Distinction where the candidate has achieved an overall mark of 70% or greater in the programme, and has passed all modules on the first occasion without the need for resits, and has achieved an overall mark of 70% or greater in the project component of the degree programme. Candidates who achieve the above with a rounded project module mark of 68% or 69% will be considered for promotion via discretion.
  - (ii) A Masters degree may be awarded with Merit where the candidate has achieved an overall mark of 60% or greater in the programme, and has either passed all modules

on the first occasion without a need for resits, or has no more than 20 credits of modules passed by resits, and has achieved an overall mark of 60% or greater in the project component of the degree programme. Candidates who achieve the above with a rounded project module mark of 58% or 59% will be considered for promotion via discretion.

- (f) Candidates who fail the core module(s) but have achieved sufficient credit for an MRes award, as stipulated in the University Regulations, will be considered for the award of MRes Medical & Molecular Biosciences.

#### **4. Exemptions to the University's Research Degree Regulations**

- (a) The MRes suite of programmes has an approved University Exemption from the University's Research Degree Regulations in relation to GG80 & 81 - Disagreement between the Examiners - see programme regulation Section 3b and a Faculty exemption in relation to the Criteria for the Award with Merit and Distinction, see programme regulations 3ei
- (b) In the event of any inconsistency between the programme and University regulations in relation to the above, the programme regulations take precedence over the University regulations. Further guidance is contained in the Programme Handbook available on the VLE.