BSC (HONS) (BIOMEDICAL SCIENCE) - MT871

Overview

NFQ Level 8, Major Award

(Joint Degree Between Munster Technological University and University College Cork)

Prospective students - please note that CAO entry to this joint degree programme is through MT871[1] under Munster Technological University

[1] Note: students who entered prior to 2022/23 entered via CR320.

First Year - Biomedical Science

In First Biomedical Science, students take the prescribed modules to the value of 60 credits (module codes marked with * indicate the code of the coordinating institution).

Module Codes Used by Each Institution

UCC Code	MTU Code	Module Run by	Module Title	Credit
BM1001	BIOL6020*	MTU	Introduction to Biomedical Science I	5
BM1002	BIOL6021*	MTU	Introduction to Biomedical Science II	5
BM1003	BIOL6008*	MTU	Cell Biology	5
BM1004	CMOD6001*	MTU	Creativity, Innovation & Teamwork	5
BM1007	BIOL6010*	MTU	Introduction to Health Science	5
BM1008	BIOL6012*	MTU	Human Biology	5
BM1009	CHEM6011*	MTU	Biological Chemistry 1	5
BM1010	CHEM6009*	MTU	Biological Chemistry 2	5
MA1001*	MATH6048	UCC	Calculus for Science Part 1	5
MA1002*	MATH6049	UCC	Calculus for Science Part 2	5
PY1008*	PHYS6028	UCC	Physics for Biomedical, Environmental, Food and Nutritional Sciences	10

Second Year - Biomedical Science

In Second Biomedical Science, students take the prescribed modules to the value of 60 credits (module codes marked with * indicate the code of the coordinating institution).

Module Codes Used by Each Institution

UCC Code	MTU Code	Module Run by	Module Title	Credit
BM2003	GENE7001*	MTU	Molecular Biology Principles	5
BM2005	BIOL7002*	MTU	Bioanalytical Science	5
BM2006	BIOL7007*	MTU	Introduction to Clinical Biochemistry	5
BM2007	BIOL7012*	MTU	Haematology and Transfusion Science	5
BM2008	BIOL7031*	MTU	Professional Practice	5
AN2004*	BIOL7025	UCC	Human Histology	5
BC2001*	BIOL7003	UCC	Biomolecules	5
BC2002*	BIOL7020	UCC	Principles of Metabolic Pathways	5
MB2005*	BIOM7007	UCC	Fundamental of Microbiology	5
MB2006*	BIOM7008	UCC	Principles of Microbiology	5
PL2021*	PHOL7001	UCC	Introductory Physiology I	5
PL2022*	PHOL7002	UCC	Introductory Physiology II	5

Third Year - Biomedical Science

In Third Biomedical Science, students take the prescribed modules to the value of 60 credits (module codes marked with * indicate the code of the coordinating institution).

Module Codes Used by Each Institution

UCC Code	MTU Code	Module Run by	Module Title	Credit
BM3006	CHEM8005*	MTU	Pharmacology	5
BM3007	GENE8002*	MTU	Molecular Biology	5
BM3008	BIOM8004*	MTU	Diagnostic Microbiology	5
BM3009	BIOL8015*	MTU	Anaemia and Immunohaematology	5
BM3013	BIOL8024*	MTU	Research and Professionalism	5
MB3001*	BIOM8005	UCC	Medical Microbiology	5
MB3008*	BIOM8007	UCC	Immunology: Host Response to Pathogens	5
MB3012*	BIOM8008	UCC	Transmission and Epidemiology of Infectious Diseases	5
BC3001*	BIOL8018	UCC	Structural Biochemistry	5
BC3002*	BIOL8020	UCC	Advanced Metabolism in Health, Disease and Cancer	5
BC3004*	BIOL8019	UCC	Cell Signalling	5
BM3001*	BIOL8021	UCC	Cellular Pathology 1	5

Fourth Year - Biomedical Science

In Fourth Biomedical Science, students take the prescribed modules to the value of 60 credits (module codes marked with * indicate the code of the coordinating institution).

Module Codes Used by Each Institution

UCC Code	MTU Code	Module Run by	Module Title	Credit
BM4009	BIOL8013*	MTU	Transfusion & Transplantation	5
BM4010	BIOL8016*	MTU	Clinical Biochemistry	5
BM4012	BIOM8010*	MTU	Quality Management Systems	5
BM4014	BIOL8017*	MTU	Statistics in Biomedical Science	5
BM4015	GENE8001*	MTU	Molecular Diagnostics	5
BM4016	BIOL8014*	MTU	Haematology Disorders	5
BM4017	BIOT8010*	MTU	Bioinformatics for Biomedical Science	5
MB3002*	BIOM8006	UCC	Virology	5
BM4007*	BIOL8022	UCC	Cellular Pathology II	5
BM4013*	BIOM8011*	UCC/MTU	Research Project	15

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 2).

Programme Requirements

Code	Title	Credits
Year 1		
Students take **60** credits as follows:		
Core Modules		
BM1001	Introduction to Biomedical Science I [1]	5
BM1002	Introduction to Biomedical Science II [1]	5
BM1003	Cell Biology [1]	5
BM1004	Creativity, Innovation and Teamwork [1]	5
BM1007	Introduction to Health Science [1]	5
BM1008	Human Biology [1]	5
BM1009	Biological Chemistry 1 [1]	5
BM1010	Biological Chemistry 2 [1]	5
MA1001	Calculus for Science Part 1 [2]	5
MA1002	Calculus for Science Part 2 [2]	5
PY1008	Physics for Biomedical, Environmental, Food and Nutritional Sciences [2]	10
Year 2		
Students take **60** credits as follows:		
Core Modules		
BM2003	Molecular Biology Principles [1]	5
BM2005	Bioanalytical Science [1]	5
BM2006	Introduction to Clinical Biochemistry [1]	5
BM2007	Haematology and Transfusion Science [1]	5
BM2008	Professional Practice [1]	5
AN2004	Human Histology [2]	5
BC2001	Biomolecules [2]	5
BC2002	Principles of Metabolic Pathways [2]	5
MB2005	Fundamentals of Microbiology [2]	5
MB2006	Principles of Microbiology [2]	5
PL2021	Introductory Physiology I [2]	5
PL2022	Introductory Physiology II [2]	5
Year 3		
Students take **60** credits as follows:		
Core Modules		
BM3006	Pharmacology [1]	5
BM3007	Molecular Biology [1]	5
BM3008	Diagnostic Microbiology [1]	5
BM3009	Anaemia and Immunohaematology [1]	5
BM3013	Research and Professionalism [1]	5
MB3001	Medical Microbiology [2]	5
MB3008	Immunology: Host Response to Pathogens. [2]	5
MB3012	Transmission and Epidemiology of Infectious Diseases [2]	5
BC3001	Structural and Experimental Biochemistry [2]	5
BC3002	Advanced Metabolism in Health, Disease and Cancer [2]	5
BC3004	Cell Signalling [2]	5
BM3001	Cellular Pathology 1 [2]	5
Year 4		
Students take **60** credits as follows:		
Core Modules		
BM4009	Transfusion & Transplantation [1]	5
BM4010	Clinical Biochemistry [1]	5
BM4012	Quality Management Systems [1]	5
BM4014	Statistics in Biomedical Science [1]	5
BM4015	Molecular Diagnostics [1]	5
BM4016	Haematology Disorders [1]	5
BM4017	Bioinformatics for Biomedical Science [1]	5
MB3002	Virology [2]	5
BM4007	Cellular Pathology II [2]	5
BM4013	Research Project [1,2]	15
Total Credits		**240**

[1] Module run by MTU as coordinating institution.
[2] Module run by UCC as coordinating institution.

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.

Programme Learning Outcomes

Programme Learning Outcomes for BSc in Biomedical Science (NFQ Level 8, Major Award)

On successful completion of this programme, students should be able to:

- Demonstrate a detailed knowledge of the theory, principles and application of methods in biomedical science relevant to the areas of clinical biochemistry, medical microbiology, histopathology, haematology and transfusion science;
- Acquire and evaluate current theory in the field of biomedical science through research, critical thinking and problem solving;

- Discern and apply a wide range of techniques applicable to the different disciplines of biomedical science both in the clinical and research setting and to present their findings in written and oral forms;
- Assess, evaluate and interpret clinical laboratory tests and results with a view to aiding in clinical diagnosis;
- Employ analytical and problem solving skills in a professional and accountable manner in a wide range of contexts, including research, within the areas of biomedical science;
- Work proficiently and professionally as an individual, or as a member of a multidisciplinary healthcare team, to achieve accurate clinical diagnosis within a quality approved environment;
- Access, evaluate and articulate knowledge of biomedical science with a view to fostering their own learning and the learning of others in a professional environment;
- Appreciate the role of a Medical Scientist being cognisant of the professional and ethical requirements necessary to provide a quality pathology service within a healthcare system.