

BSC (HONS) (MEDICAL AND HEALTH SCIENCES) - CK707

Overview

NFQ Level 8, Major Award

This is a four-year, full-time undergraduate programme, leading to the award of a BSc (Hons) Medical and Health Sciences. The programme includes a research project in the Fourth Year.

First Year - Medical and Health Sciences

To be admitted to the First University Examination in Medical and Health Sciences, a student must have satisfactorily attended modules amounting to **60** credits.

Second Year - Medical and Health Sciences

To be admitted to the Second University Examination in Medical and Health Sciences, a student must have satisfactorily attended modules amounting to **60** credits.

Third Year - Medical and Health Sciences

To be admitted to the Third University Examination in Medical and Health Sciences, a student must have satisfactorily attended modules to the value of **60** credits comprising core modules to the value of **55** credits, and elective modules to the value of **5** credits.

Fourth Year - Medical and Health Sciences

To be admitted to the Fourth University Examination in Medical and Health Sciences, a student must have satisfactorily attended modules to the value of **60** credits comprising core modules to the value of **20** credits, and elective modules to the value of **40** credits.

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

Programme Requirements

Code	Title	Credits
Year 1		
Students take 60 credits as follows:		
<i>Core Modules</i>		
EH1011	Foundations in Epidemiology	10
MH1010	Introductory Human Biology	15
MH1020	Cardiovascular Biology	5
MH1030	Respiratory Biology	10
MH1040	Gastrointestinal, Nutritional and Metabolic Biology	10
MH1050	Introduction to Translational Medicine	5
PT1020	Introduction to Pharmacology	5
Year 2		
Students take 60 credits as follows:		
<i>Core Modules</i>		
BC2024	Molecular Biology and Gene Regulation in Health and Disease	5
EH2010	Applied Epidemiology	5
MH2010	Research Skills and Ethics	5
MH2020	Research Methods in Medical Sciences	5

MH2101	Biology of the Nervous System	10
MH2102	Bone, Renal and Reproductive Biology	10
PM2004	Mechanisms of Disease	10
PT2020	Introduction to Toxicology	5
PT2021	Molecular and Cellular Pharmacology	5

Year 3

Students take **60** credits as follows – all listed core modules (**55** credits) and **5** credits of elective modules:

Core Modules

AN3013	Neurobiology of Disease	5
BC3021	Cell Signalling in Health and Disease	5
EH3013	Population Health	5
MB3001	Medical Microbiology	5
MH3010	Structured Literature Project in Medical and Health Sciences	10
MH3050	Advances in Translational Medicine	5
PL3001	Pathophysiology	5
PM3017	Systems Pathology	5
PT3020	Pharmacology of Disease	10

Elective Modules

Students take **5** credits from the following: 5

AN3003	Neurobiology of Regulatory Systems (5)
AN3009	Human Embryology and Developmental Anatomy (5)
BC3007	Principles of Medical Genetics (5)
MB3008	Immunology: Host Response to Pathogens. (5)
MB3022	Virology (5)
MX1009	History of Medicine (5)
PL3005	Cell and Epithelial Physiology (5)

Year 4

Students take **60** credits as follows – all listed core modules (**20** credits) and **40** credits of elective modules:

Core Modules

MH4010	Research Project in Medical and Health Sciences	20
--------	---	----

Elective Modules

Students take modules to the value of **40** credits from the following: 40

AN4009	Behavioural and Cognitive Neuroscience (5)
AN4012	Medical Imaging and Biomedical Devices in the Neurosciences (5)
AN4013	Advanced Topics in Neuroscience (5)
AN4016	Neurodevelopmental Biology Approaches to Brain Repair. (5)
AN4017	Prenatal and Perinatal Exposures and the Developing Brain. (5)
BC4001	Advanced Cell Biology (5)
BC4009	Cancer Biology (5)
BC4011	Cell and Molecular Basis of Neurodegenerative disease (5)
BC4022	Immunobiology of Health and Disease (5)
EH4000	Advanced Applied Epidemiology (5)
EH4009	Contemporary Global Health Issues (5)
MB4030	Advanced Medical Microbiology and Immunology (5)
MB4031	Advanced Virology and Antiviral Immunity (5)

MH4020	Work Placement (5)
PL4006	Regulation of Epithelial Transport (5)
PL4007	Gene Targeting Tools for Physiology (5)
PL4009	Applied Cardiovascular and Respiratory Physiology (5)
PL4010	Control of Breathing in Health and Disease (5)
PL4011	Learning and Memory (5)
PL4012	Physiology of Calcium Signalling (5)
PL4013	Physiology and Pathophysiology of Vascular Endothelium (5)
PL4015	Microbiome and Physiology (5)
PT4021	Immunopharmacology and Chemotherapy (10)
PT4022	Drug Discovery and Development (5)
PT4023	Endocrine, Metabolic and Reproductive Pharmacology (5)
PT4024	Current Topics in Pharmacology (5)
Total Credits	240

- Work effectively as an individual, in teams and in multidisciplinary settings, having developed the capacity to undertake lifelong learning and critical thinking.

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 (Hons) (Medical and Health Sciences) (NFQ Level 8, Major Award)

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

- Explain the basic principles of medical science, i.e. anatomy, biochemistry and physiology, at whole body, organ, tissue, cellular and sub-cellular levels;
- Describe clinicopathological features of common human diseases and explain in detail their underlying mechanisms, with reference to current literature;
- Describe the major classes of drugs and pharmacological approaches to the management of common medical conditions, with reference to current literature;
- Explain the current research technologies and methods in the biomedical sciences, and outline how they are applied in preclinical and clinical medicine and/or in industrial laboratories;
- Demonstrate the ability to use appropriate strategies for literature searching, to critically evaluate research publications and to formulate research ideas and hypotheses;
- Design, execute and analyse an experiment or a study to test a hypothesis or theory in medical and health sciences;
- Interpret and discuss laboratory findings, perform appropriate statistical analyses and clearly communicate research findings and appropriate conclusions, both orally and in writing;
- Demonstrate appropriate scientific proficiency for entry into a variety of further postgraduate education/research or for employment in government, academic or industrial positions;
- Communicate effectively with the scientific community and appreciate the importance of contributing to the public understanding of science and medicine;