

# INTERCALATED BSC (HONS) IN PATHOLOGY (MEDICAL MICROBIOLOGY)

## Overview

### NFQ Level 8, Major Award

Students who entered the University through the College of Medicine and Health may apply to take programmes in Science leading to the award of a BSc (Hons) Degree in one of Anatomy or Neuroscience (<https://ucc-ie-public.courseleaf.com/programmes/bschan/>), Biochemistry (<https://ucc-ie-public.courseleaf.com/programmes/bschbc/>), Pathology (Medical Microbiology), Pharmacology (<https://ucc-ie-public.courseleaf.com/programmes/bschpt/>) or Physiology (<https://ucc-ie-public.courseleaf.com/programmes/bschpl/>).

While pursuing any of the above programmes a student will not be permitted to pursue any other programmes (medical or otherwise).

With the approval of the Head of the Department of **Pathology** and the College of Medicine and Health, and in the case of Pathology (Medical Microbiology) the Head of the School of Microbiology and the Professor of Medical Microbiology, a student who has passed the Third University Examination in Medicine and who has attained an aggregate mark of at least 60% thereat in Pathology may proceed to a BSc (Hons) Degree by (a) satisfactorily pursuing modules to the value of 60 credits in Pathology as determined by the Head of the Department of Pathology, or in Microbiology as determined by the Head of the School of Microbiology (b) reaching the required standard in the BSc (Hons) Degree Examination in Pathology or the BSc (Hons) Degree Examination in Microbiology.

## Programme Requirements

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

## Programme Requirements

Students take **60** credits as follows – all listed core modules (**15** credits) and **45** credits of elective modules:

### Core Modules

MB4002	Research Project	15
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### Elective Modules

Students take modules to the value of **45** credits from the following: <sup>1</sup> 45

MB3001	Medical Microbiology ()	
MB3002	Virology ()	
MB3005	The role and ecology of microbes in the environment ()	
MB3006	Genetic Engineering and Molecular Biotechnology ()	
MB3007	Molecular Genetics and Genomics ()	
MB3008	Immunology: Host Response to Pathogens. ()	
MB3012	Transmission and Epidemiology of Infectious Diseases ()	
MB4001	Methods in Microbiology ()	
MB4011	Microbial Food Safety ()	
MB4019	Computational Biology ()	

MB4027	Research Frontiers in Microbiology ()	
MB4029	Microbial Diversity and Molecular Ecology ()	
MB4030	Advanced Medical Microbiology and Immunology ()	
MB4031	Advanced Virology and Antiviral Immunity ()	
MB4111	Microbial Food Safety ()	

**Total Credits** 60

<sup>1</sup> with the agreement of the Head of the School of Microbiology.

## 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 Pathology (Medical Microbiology) (NFQ Level 8, Major Award)

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

- Discuss the key principles and concepts underpinning the discipline of Microbiology;
- Describe the role of microbes in society and critically analyze future microbiological developments of relevance to society;
- Discuss in detail the physiology and biochemistry of bacteria, and the key elements of genetics in prokaryotes, eukaryotic microbes and viruses;
- Explain the molecular basis of infectious diseases and host immune responses;
- Explain the role and applications of microbes in the food and biotechnology industries, in environmental biotechnology and in ecosystem functioning;
- Critically assess recent and ongoing developments in scientific research and effectively communicate scientific knowledge both orally and in writing;
- Apply fundamental laboratory procedures in Microbiology for applications in research, in medical and/or industrial laboratories;
- Apply the scientific method of investigation and hypothesis testing, including the development of theoretical and practical skills, in the design and execution of experiments;
- Demonstrate appropriate scientific proficiency for entry into further postgraduate education/research or for employment in government, academic or industrial positions.