Immunology

Year and Campus:	2014
Coordinator:	Dr Karena Waller
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Overview:	This major provides students with a detailed understanding of Immunology, the study of our immune system. The major describes how Immunology is studied and applied to a range of areas in the biomedical sciences. The major opens up careers in infectious diseases, diagnostics, molecular biology, biotechnology, vaccinology, biosafety and regulation as well as providing an avenue towards post-graduate research into infectious agents, their genes, underlying mechanisms of infectious disease and diseases associated with the immune system. It provides a basis for further study into medicine and other paramedical disciplines. Students intending to undertake this major should be aware that it requires successful completion of a practical-based subject in which products and reagents derived from animals are used.
Learning Outcomes:	On completion of this major, students should be able to: # Describe the way the immune system responds to defend the body against infectious, foreign and noxious agents # Describe the mechanisms operating in response to tumours, transplants, and in allergies and autoimmune diseases # Explain the molecular and cellular responses elicited by vaccination. # Describe strategies to dampen immune responses that can be employed to improve human health # Describe the principles and procedures involved in isolating and characterising immune cells and their products # Select and apply practical and/or theoretical immunological techniques or tools in order to conduct an investigation # Critically analyse and evaluate scientific data from a range of sources to form evidence-based conclusions # Effectively communicate scientific ideas and findings in both oral and written format # Demonstrate safe scientific work practices
Structure & Available Subjects:	Completion of 50 points of study at level 3
Subject Options:	All three of

Subject	Study Period Commencement:	Credit Points:
MIIM30002 Principles of Immunology	Semester 1	12.50
MIIM30003 Medical and Applied Immunology	Semester 2	12.50
MIIM30015 Techniques in Immunology	Semester 2	12.50

Plus one of

Subject	Study Period Commencement:	Credit Points:
MIIM30011 Medical Microbiology: Bacteriology	Semester 1	12.50
MIIM30014 Medical Microbiology: Virology	Semester 2	12.50
BCMB30001 Protein Structure and Function	Semester 2	12.50
BCMB30002 Functional Genomics and Bioinformatics	Semester 1	12.50

	BCMB30003 Molecular Aspects of Cell Biology	Semester 1	12.50
	GENE30002 Genes: Organisation and Function	Semester 1	12.50
	CEDB30002 Concepts in Cell & Developmental Biology	Semester 1	12.50
	PATH30001 Mechanisms of Human Disease	Semester 1	12.50

Notes:	This major is available to new generation Bachelor of Science students (BSci) and Bachelor of Biomedicine (BBiomed) students. It is also available to Bachelor of Science students who commenced prior to 2008. The published structure of this major includes subjects available in the current year. Pre-2008 Bachelor of Science students who completed one or more Level 3 science subjects towards this major prior to 2010 should contact the Science Student Centre for advice on appropriate subjects to complete this major.
Related Course(s):	Bachelor of Biomedicine Bachelor of Science