

Defence and Disease

Science and Disease

Year and Campus:	2010																								
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Overview:	The human immune system has evolved to control harmful microbes and tumors but can sometimes inflict damage on its host, and as such is a major contributor to human disease. This major examines and integrates immunology, the study of the immune system, with pathological processes and their morphologic, molecular and genetic bases which are associated with immune based disease. The major opens up careers in diagnostics, molecular biology, biotechnology and regulation, research into infectious agents associated with immune based pathology and the various outcomes of the immune system, especially those involved with autoimmunity and immunopathology. It provides a basis for further study in medical and paramedical disciplines.																								
Objectives:	Upon completion of this major students should be able to: # understand the development, function and components of the immune system, especially the molecular aspects of immunity to infection, and the basis of immunopathologic conditions including allergies, autoimmune disease and transplantation responses; # apply this knowledge to the determination of strategies which can augment or inhibit the immune response; # describe the principles and procedures involved in isolating and characterising immune cells and their products; # understand the cellular, molecular and genetic bases of the immunopathological conditions described above and how these contribute to morbidity, mortality and the development and clinical use of therapeutic strategies; and # communicate scientific ideas and findings effectively in both oral and written form.																								
Structure & Available Subjects:	This major consists of: # 50 credit points at third year level In order to complete this major, students have to complete the second year pre-requisite subject 526-205 Microbes: Infections and Responses at the second year level.																								
Subject Options:	Second Year: <table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>MIIM20002 Microbes, Infections and Responses</td><td>Semester 2</td><td>12.50</td></tr></table> Third Year: <table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>PATH30001 Mechanisms of Human Disease</td><td>Semester 1</td><td>12.50</td></tr><tr><td>MIIM30002 Principles of Immunology</td><td>Semester 1</td><td>12.50</td></tr></table> Plus one subject from: <table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>PATH30002 Techniques for Investigation of Disease</td><td>Semester 1</td><td>12.50</td></tr><tr><td>MIIM30013 Techniques in Microbiology & Immunology</td><td>Semester 1, Semester 2</td><td>12.50</td></tr></table> Plus one subject from:	Subject	Study Period Commencement:	Credit Points:	MIIM20002 Microbes, Infections and Responses	Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	PATH30001 Mechanisms of Human Disease	Semester 1	12.50	MIIM30002 Principles of Immunology	Semester 1	12.50	Subject	Study Period Commencement:	Credit Points:	PATH30002 Techniques for Investigation of Disease	Semester 1	12.50	MIIM30013 Techniques in Microbiology & Immunology	Semester 1, Semester 2	12.50
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	PATH30003 Consequences of Human Disease	Semester 2	12.50
	MIIM30014 Viruses and Other Parasites	Semester 2	12.50
	PATH30004 Advanced Investigation of Human Disease	Semester 2	12.50
	MIIM30003 Medical and Applied Immunology	Semester 2	12.50
Links to further information:	http://www.bbiomed.unimelb.edu.au/		
Related Course(s):	Bachelor of Biomedicine		