Immunology
Bachelor of Science

2015 SAMPLE COURSE PLANS

### Leading subjects

<table>
<thead>
<tr>
<th>First Year</th>
<th>Semester 1</th>
<th>BIOL10004 Biology of Cells and Organisms</th>
<th>CHEM10003 Chemistry 1</th>
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</thead>
<tbody>
<tr>
<td>Second Year</td>
<td>Semester 1</td>
<td>MIIM20001 Principles of Microbiology &amp; Immunology</td>
<td>BCMB20002 Biochemistry and Molecular Biology</td>
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<tr>
<td>Third Year</td>
<td>Semester 1</td>
<td>MIIM30002 Principles of Immunology</td>
<td>CEDB30002 Concepts in Cell &amp; Developmental Biology</td>
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<tr>
<td>Semester 2</td>
<td>MIIM30003 Medical and Applied Immunology</td>
<td>MIIM30015 Techniques in Immunology</td>
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### Recommended subjects

### Elective subjects

### Major subjects

### Breadth subjects

Immunology is the study of our immune system. The immune system has evolved to defend our body against agents of infection and tumours, but various outcomes of activation of the immune system can cause damage to us. The incidence of diseases associated with the immune system, such as allergies and autoimmune diseases is increasing and treatment and prevention of many infectious diseases is difficult due to the absence of effective vaccines. Immunology is a rapidly evolving science and new knowledge can be applied to the development and clinical use of new immune based therapies for cancer and infectious diseases, prevention of transplantation responses as well as allergies and autoimmune diseases.

This major describes how Immunology is studied and applied to a range of areas in the biomedical sciences. Additionally, in this major you will develop the ability to acquire, analyse and apply information from multiple sources, both within and beyond the laboratory.

### What careers can this major lead to?

This major will open up career opportunities in areas including:

- Diagnostics
- Vaccine development
- Molecular biology
- Biotechnology
- Biosafety and regulation

You may also choose to undertake research in related areas such as:

- Infectious diseases
- Immunodeficiencies
- Genetics and pathogenesis of the immune system
- Biochemical and cellular aspects of immune recognition
- The various outcomes of the immune system in a setting of infection, autoimmunity, cancer, transplantation and allergies
What graduate courses does Immunology lead to?

Other science graduate pathways that students with a Immunology major generally undertake apart from medicine and dentistry are: veterinary science, optometry, education and teaching. Students can also pursue Masters and Honours pathways to research higher degrees in the sciences and technology within the Melbourne Graduate School of Science, Melbourne School of Engineering, Melbourne School of Land and Environment, and the Faculty of Medicine, Dentistry and Health Sciences.