



THE UNIVERSITY OF  
MELBOURNE

## BACHELOR OF BIOMEDICINE

Melbourne Model Undergraduate Degrees 2008

Systems  
that create,  
sustain and  
threaten life

The Melbourne Model introduces undergraduate programs characterised by both depth and breadth, followed by a graduate professional degree, a research higher degree or entry directly into employment. It is a distinctively Australian response to a well-established international trend in higher education.

### BACHELOR OF BIOMEDICINE

The Melbourne Bachelor of Biomedicine equips bright, enquiring minds for the complex challenges of health care. It provides the solid foundation necessary to prepare students for health-related and other professional programs as well as specialised graduate research.

Biomedicine is concerned with the processes and systems that create, sustain and threaten life. Our understanding of the biomedical sciences continues to grow and will enable individuals to contribute in the health care sector, the laboratory and the broader community. Health professionals, biomedical scientists, bioengineers and others are critical to both the discovery and application of knowledge in biomedicine.

At the core of the degree is the understanding of the structure and function of the body and consideration of the determinants of disease, including genetic and environmental influences. Students undertaking the Bachelor of Biomedicine also develop fundamental skills in the scientific method, critical thinking and problem solving, the analysis of evidence and communication. The degree encourages a choice of subjects from outside the core program that permits students to define a broader context for their degree that will suit their own ambitions.

Bachelor of Biomedicine graduates are creative and curious. They have highly developed analytical and problem-solving skills with a strong basis in the scientific method. They are effective written and oral communicators and have in-depth knowledge in chosen

aspects of biomedicine, according to discipline specialisation. They demonstrate an ability to work collaboratively and have an appreciation of the application of biomedical knowledge and skills to individuals and populations.

#### PREREQUISITES:

Victorian Certificate of Education (VCE): Units 3 and 4 – A study score of at least 25 in English (any), at least 35 in Chemistry, and at least 25 in one of Biology, Mathematical Methods (either), Specialist Mathematics or Physics.

International Baccalaureate (IB): English, Chemistry and one of Biology, Mathematics or Physics. Chemistry must be passed to at least Grade 6 at Standard Level and at least Grade 5 at Higher Level. All other prerequisites must be passed to at least Grade 5 at Standard Level and to at least Grade 4 at Higher Level.

#### THE COURSE:

##### Course Structure

**First year:** 6 core subjects, and 2 breadth subjects.

**Second Year:** 2 core subjects, 2 subjects and 2 breadth subjects.

**Third Year:** 2 core subjects, 1 specialisation major (the equivalent of 4 subjects) and 2 breadth subjects.

In addition to the core program, students take 75 points (or one quarter of their three-year program) from other discipline areas. These 'breadth subjects' are designed to bridge the disciplines,

THE EVOLUTION STARTS HERE

dream large



THE UNIVERSITY OF  
MELBOURNE



sharpening skills of logic, analysis and multi-disciplinary problem solving. The breadth subjects will develop knowledge, skills and approaches to learning that equip students for careers and research to which interdisciplinary understanding is increasingly important.

### Fields of Study

#### Core Subjects:

- |                                       |                                         |
|---------------------------------------|-----------------------------------------|
| → Biomolecules & Cells                | → Molecular & Cellular Biomedicine      |
| → Chemistry for Biomedicine           | → Integrated Human Structure & Function |
| → Physics for Biomedicine             | → Biomedicine: From Molecule to Malady  |
| → Mathematics for Biomedicine         | → Frontiers in Biomedicine              |
| → Experimental Design & Data Analysis | → Genes & Environment                   |

#### Specialisation Majors:

- |                                    |                                        |
|------------------------------------|----------------------------------------|
| → Biochemistry & Molecular Biology | → Human Structure & Function           |
| → Bioengineering Systems           | → Microbiology, Infection & Immunology |
| → Biotechnology                    | → Neuroscience                         |
| → Cell & Developmental Biology     | → Pathology                            |
| → Genetics                         | → Pharmacology                         |
|                                    | → Physiology                           |

### A DISTINCTIVE MELBOURNE EXPERIENCE

Central to the distinctive Melbourne experience is connecting students with each other, the University community and the wider world.

Under the Melbourne Model students will have increased opportunities to:

- Study overseas;
- Participate in industry linked learning, including the opportunity to take an internship;
- Build leadership and professional networks;
- Forge links with other students;
- Participate in humanitarian and environmental projects; and
- Develop a set of highly marketable and transferable skills – in teamwork and collaboration, problem solving, communication and research.

### CAREER PATHWAYS

Graduates of the Bachelor of Biomedicine have a wide variety of career pathways available to them.

The Bachelor of Biomedicine offers the preferred pathway to courses specialising in Medicine, Dentistry, Physiotherapy and Nursing and ideal preparation for courses in Biomedical Engineering, Optometry and Public Health.

Graduates may seek employment in the biomedical sector or consider a career in biomedical research or related fields by pursuing a research higher degree, e.g. Masters or PhD.

### GRADUATE SCHOOL: PROFESSIONAL DEGREES

To complement the new undergraduate offerings at the University, an exciting new range of graduate programs has been introduced. These new professional graduate courses will offer more intensive and better supported, highly specialised professional education.

Masters level or equivalent qualifications – duration 2+ years – available from 2008 in:

- |                           |                                 |                   |
|---------------------------|---------------------------------|-------------------|
| → Applied Commerce        | → Engineering †                 | → Music Therapy   |
| → Architecture            | → Landscape Architecture        | → Nursing Science |
| → Construction Management | → Law (Juris Doctor) – 3 years* | → Property        |
|                           |                                 | → Social Work     |
|                           |                                 | → Teaching        |
|                           |                                 | → Urban Planning  |

\* Accelerated options available  
† Progressively from 2009

Graduate professional doctoral level or equivalent qualifications – duration 3+ years – available from 2011 in:

- |                      |                 |                                    |
|----------------------|-----------------|------------------------------------|
| → Dental Surgery     | → Nursing       | → Veterinary Science (details tbc) |
| → Medicine & Surgery | → Optometry     |                                    |
|                      | → Physiotherapy |                                    |

### OTHER GRADUATE PROGRAM OPPORTUNITIES

Biomedicine graduates are well-placed to apply for:

- Professional or vocational programs such as Medicine, Dentistry, Physiotherapy and Nursing; or Biomedical Engineering, Business Administration, Education, Law, Optometry and Public Health;
- A range of other coursework Masters degrees available in various discipline areas within the University;
- Honours and research higher-degree (Masters and PhD) programs within the faculties of Medicine, Dentistry and Health Sciences, Science and Veterinary Science.

For updates on the Melbourne Model and course entry visit:  
[www.futurestudents.unimelb.edu.au](http://www.futurestudents.unimelb.edu.au)

The University of Melbourne – Victoria 3010 Australia

The information in this publication was correct at the time of printing. The University reserves the right to make changes as appropriate. As details may change students are encouraged to visit the University's web site to obtain the latest information.

Authorised by: Vice-Principal and Academic Registrar, The University of Melbourne, April 2007. Printed on 9 Lives recycled paper.

For International Students, this course is subject to CRICOS approval. CRICOS: 00116K