



APPLIED MICROBIOLOGY

KPT/JPT (R/421/6/0027) 10/20 - MQA/SWA0129



Applied Microbiology is the study of microorganisms, including bacteria, fungi and viruses with an emphasis on the application of knowledge and skills to real-world challenges such as infectious disease, food spoilage and bio fouling.

You will learn about the structure of microorganisms and their way of life, how they interact with people and other living organisms in both harmful and beneficial ways, and how they can be harnessed and utilised for industries such as the food and pharmaceutical industry.

The field is at the core of game-changing new developments occurring in modern molecular biology. It is also vital to our ability to arrest emerging health issues, e.g. influenza outbreaks, SARS, ebola and the rise of antibiotic resistance in medically important bacteria.

Applied microbiology is integral to many areas of science and industry including biomedical science, biotechnology, ecology, food fermentation and food safety, and the pharmaceutical industry.

Why study at Monash University?

- Cutting-edge curriculum and excellent teaching led by renowned scientists active in research
- Monash is in the top one per cent of universities worldwide
- Our degree includes opportunities to do an internship and participate in international exchange study programs.

CAREER OPPORTUNITIES

You will offer an employer excellent technical skills, a capacity for critical thinking, attention to detail, and interest in scientific theory and issues as they relate to society.

- **Clinical, Veterinary, Food, Industrial or Environmental Microbiologist**
- **Patent Officer**
- **Research Scientist**
- **Science Journalist**
- **Science Teacher**
- **University Lecturer**
- **Technical Brewer**
- **Quality Controller**

COURSE STRUCTURE

YEAR 1

CHM1051	Chemistry 1 advanced
CHM1052	Chemistry 2 advanced
BIO1011	Blueprints for life
BIO1022	Life on Earth
SCI1020	Introduction to statistical reasoning
One level 1 science unit	
Two elective units	

YEAR 2

BTH2830	Fundamentals of microbiology
BTH2732	Recombinant DNA technology
SCI2010	Scientific practice and communication
One level 2 or 3 science unit	
Four elective units	

YEAR 3

FST3711	Food and industrial microbiology
BTH3732	Environmental microbiology
Two units from:	
BTH3722	Medical microbiology
BTH3752	Molecular biology and biotechnology
SCI3990	Science in action research project
Two level 2 or 3 science units	
Two elective units	

Disclaimer: Please note that not all degrees, courses, majors and/or units ("Courses") offered at the Malaysia campus are offered at any of the other Monash University campuses. You should always check with the relevant School advisers when planning Courses and making study plans. The inclusion in a publication of details of a Course and the acceptance into a course in no way creates an obligation on the other part of the University to teach it in any given year, or to teach it in a manner described. The University reserves the right to cancel, discontinue or vary Courses at any time without notice. An intercampus exchange or transfer may result in a longer time for degree completion due to variations of Course offering and the semester of the Course offering at each campus. Exchange and transfer arrangements to other Monash University campuses are subject to eligibility criteria, approval and may be subject to quotas. January 2020.

FURTHER INFORMATION

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