MONASH University
MALAYSIA

MONASH
SCIENCE

MEDICINAL CHEMISTRY

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

Medicinal chemistry is the rapidly advancing field of chemistry focusing on the design and development of new drugs and medicines.

Medicinal chemists seek to find new active chemical compounds, particularly from natural products such as rainforest plants and microbes, and also to design novel synthetic compounds.

You will learn about the design and chemical synthesis of bio-active molecules and pharmaceuticals with the aim to discover and develop new drugs and therapeutic agents for clinical use. The importance of understanding the interaction of chemical structure in biological systems and the experience of hands-on experiments which involve recent research advances in this area will be emphasised in this major.

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.

- Analytical / Biomedical Chemist
- Chemist
- Biotechnologist
- Biotechnology Sales and Marketing Manager
- Drug Development Chemist
- Hospital or Medical Laboratory
- Technician
- Industrial Chemist
- Instrument Specialist
- Molecular Design Chemist
- Occupational Health and Safety Officer
- Occupational Hygienist
- Pharmaceutical and Product Manufacturer
- Pharmaceutical Representative
- Process Control Specialist
- Quality Controller
- Research Chemist
- Risk-Management Consultant
- Science Journalist
- Teacher
- University Lecturer

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

CHM2911	Inorganic and organic chemistry
CHM2922	Spectroscopy and analytical chemistry
PHY2810	Physiology of human body systems or
PHY2820	Physiology of human health
SCI2010	Scientific practice and communication

One level 2 or 3 science unit
Three elective units

YEAR 3

CHM3922	Advanced organic chemistry
CHM3930	Medicinal chemistry
PHA3801	Principles of pharmacology

One level 2 or 3 science unit
One level 3 science unit
Three elective units

FURTHER INFORMATION

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