

BIOTECHNOLOGY AT SWINBURNE

**SWINBURNE UNIVERSITY OF TECHNOLOGY WEBINAR
PROFESSOR MRINAL BHAVE & PROFESSOR ENZO PALOMBO**



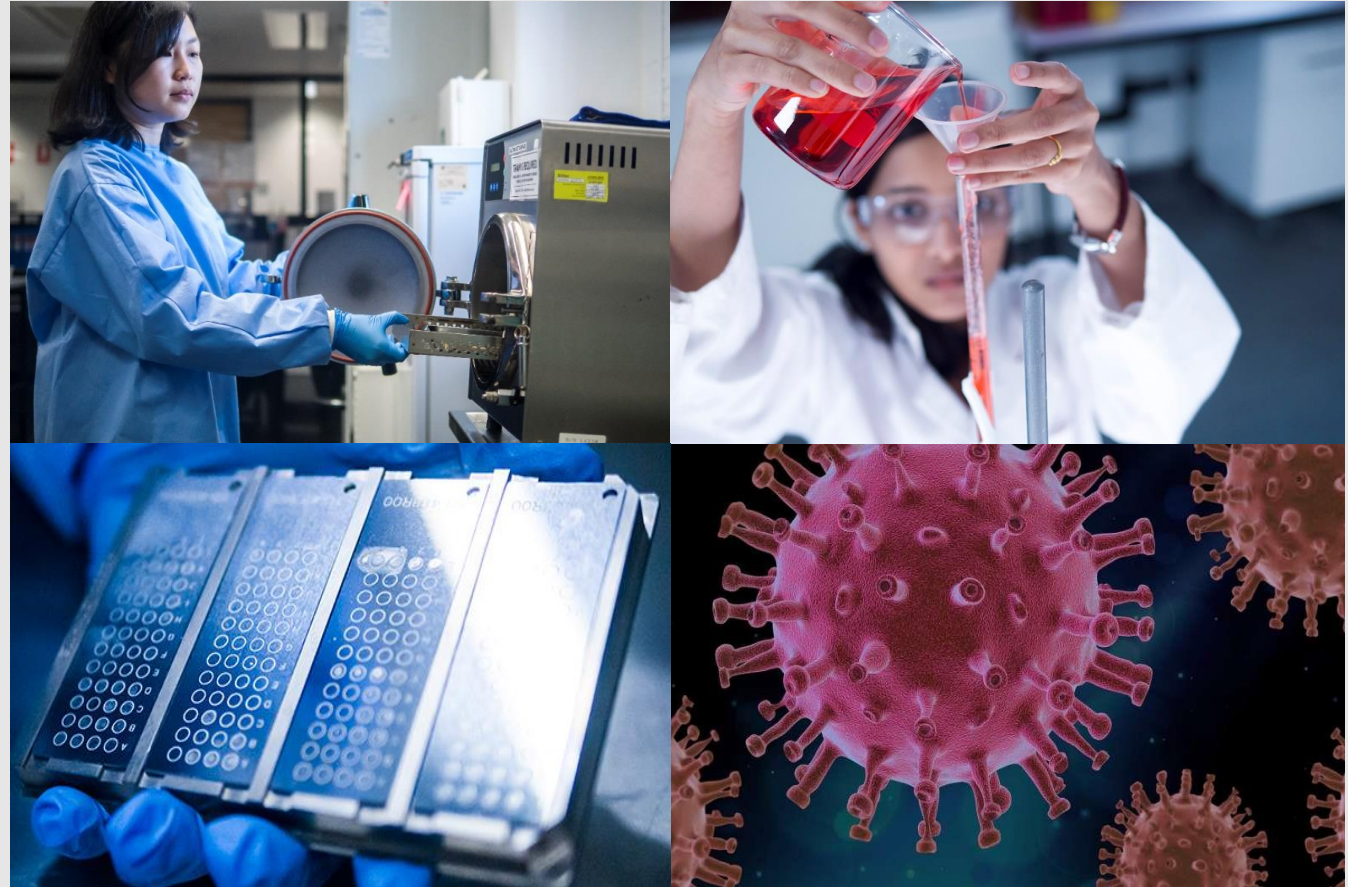
MASTER OF SCIENCE (BIOTECHNOLOGY) AT SWINBURNE

Biochemistry

- Chemical and physical-chemical processes and substances that occur in living organisms
- Closely related to molecular biology, the study of biological mechanisms and macromolecules

Biotechnology

- Employing living organisms (or parts of organisms) to make or modify products, improve plants or animals
- Emphasis on the cellular and molecular level control of biology



MSc (BIOTECHNOLOGY)

UNIQUE FEATURES OF THE COURSE

A combination of:

Core subjects that provide in-depth understanding in all main areas of biotech

biochemistry, microbiology, molecular biology, biotechnology, research methods, a research project

- Elective subjects that allow students to investigate their areas of interest more; e.g.,
 - further units in microbiology, environmental management, forensic and analytical chemistry, major project, bioinformatics



MSc (BIOTECHNOLOGY)

COURSE STRUCTURE

Biotechnology,
Environmental
Science,
Microbiology,
Genes & Proteins,
Research
methods,
Minor project

Electives x 2

8 Units
(Graduate Diploma)

+

Advanced
Biochemistry
and
Biotechnology

*Electives x 4
(potentially a
major project)*

8 Units

Electives include biological/chemical sciences, and/or a major research project

MSc (BIOTECHNOLOGY)

- Immersed in local culture
- Build your network
- Develop hands-on laboratory skills
- Access sophisticated equipment
- Trained in state-of-the-art facilities
- Mentored by leading researchers



WHY SCIENCE AT SWINBURNE?

- Small classes
- Personal interactions
- Easily accessible
- Campus accommodation
- ARWU Top 200 Science
- Strong research exposure



LEARNING AND TEACHING APPROACH

- Transforming STEM
- Student Centred
- CANVAS
- Echo 360 ALP
- Professional Purpose
- Authentic Experiences



STUDY AND LEARNING SUPPORT



**Assignment writing
guides and
samples**

**Programming and
computer
networking skills**

**Mathematics and
Statistics Help
Centre**



**Get help from
other students**

**Swinburne
Academic Literacy
Needs Assessment**

**Get your study
back on track**



**Learning and
Academic Skills
Centre**

**Thesis writing and
research skills**

**Student systems,
hardware and
software**

THE SWINBURNE ADVANTAGE

The Swinburne Advantage



Work placements

Get the edge on other graduates with work experience in a paid six or 12-month full-time professional placement.



Professional Internships

Learn from the experts. We pair you with a host organisation for a minimum of 18 full days.



Industry-linked projects

Take the challenge of working in a team to fulfil a client brief from start to finish.



Accreditation placements

Fulfil your degree requirements while getting experience with well-regarded organisations.



Industry study tours

Discover how the world does business.

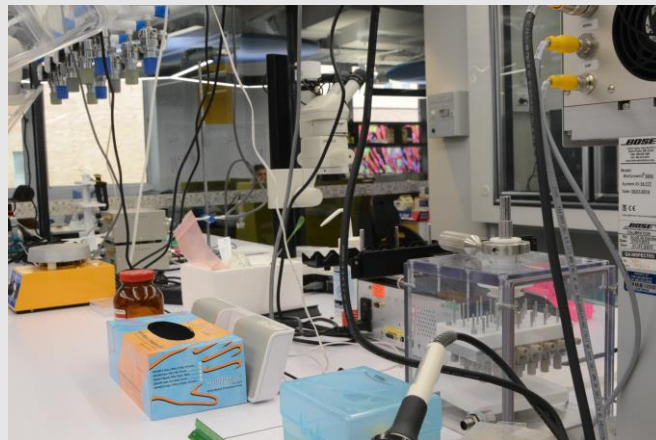
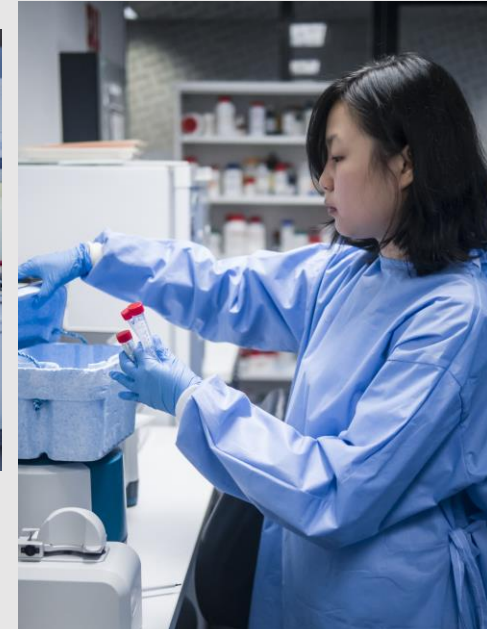
CAREERS

- **Academia** (universities and research)
- **Agriculture** (wine industry, horticulture)
- **Analytical labs** (drug screening)
- **Business** (analyst)
- **Communications** (media, public outreach, museums)
- **Defence Science**
- **Education** (primary and secondary teaching)
- **Environment** (bioremediation, water companies)
- **Food and beverage industry**
- **Forensics**
(DNA typing, crime scene investigation)
- **Government** (policy advisors)
- **Health Industry** (hospital labs, research labs)
- **Industry**
- **Pharmaceutical industry**
- **Public health** (government departments, hospitals)
- **Research and Development**
- **Technical Sales**

RESEARCH OPPORTUNITIES

- **Genetics**
- **Biochemistry**
- **Cell biology**
- **Stem cell research**
- **Microbiology**
- **Infectious diseases**
- **Plant biotechnology**
- **Recombinant protein technology**
- **Proteomics**
- **Metabolomics**
- **Molecular virology**
- **Bioactive compounds**
- **Microbial enzymology**
- **Biopolymers**
- **Plant Biotechnology**
- **Bioremediation**
- **Water quality**

STATE-OF-THE-ART FACILITIES



SUMMARY

MASTER OF SCIENCE (BIOTECHNOLOGY)
10 CORE UNITS
6 ELECTIVES
GRADUATE DIPLOMA EXIT POINT

SWINBURNE ADVANTAGE
PHD OPPORTUNITIES

Q & A

FEEL FREE TO SUBMIT QUESTIONS IN THE Q&A BOX

- If we are unable to address all of them during the session, feel free to contact Mahdi or your Regional Recruitment Managers from Swinburne.
- Today's presentation will email to you after this webinar with invitation for next webinar.
- Register upcoming webinars on the "Information for International Agents and Partners" page on Swinburne website
- See you at the next webinar on Friday 31 July 2pm for Mechanical Engineering.

