The University of Western Australia is a science-focused university, internationally renowned for excellence in teaching and research.

The Faculty of Science has a collaborative environment, and its emphasis on shared academic resources and expertise across discipline areas creates a rich and dynamic learning experience.

**Master of Biotechnology**

**with specialisations in**
- Biochemistry and Molecular Biology
- Environmental Biotechnology
- Genetics and Breeding
- Genetics and Genomics

UWA’s breadth of expertise across the science disciplines is unequalled!

Unique in Australia, this program offers a thorough grounding in state-of-the-art biotechnology in combination with training in enterprise, commercialisation and intellectual property (IP) protection.

Biotechnology is rapidly becoming central to our lives. The use of plants, animals and bacteria, enhanced by areas such as genetics and genomics, gives rise to new food, fibre and chemical production routes, and new strategies for environmental protection and stewardship, all central requirements as the global population increases over the coming decades.

Using world-leading research staff in the Faculty of Science and business experts in the UWA Business School, along with mentors in biotechnology companies, you are provided with the fundamental academic and business skills needed to make a significant contribution to the biotechnology sector.

You will train in the theory of genetics and molecular biology and receive comprehensive skills training in ‘next generation’ practical techniques such as proteomics, metabolomics, genomics and recombinant DNA methods. These core skills will be complemented by both basic and advanced bioinformatics practices.

**Career opportunities**

The Master of Biotechnology is a cross-disciplinary degree, providing graduates with a unique combination of state-of-the-art science and business skills, in a subject area rapidly expanding as society faces increasingly significant population pressures.

Graduates will be ready to compete internationally in a range of roles – from large multi-nationals and spin-out companies, to governmental organisations and international research laboratories – or start companies of their own.

**Course Structure**

You will study the core units of:
- The Objectives and Applications of Genomics
- Bioinformatics and Data Analysis for Genomics
- Biotechnology Commercialisation
- Commercialisation Management Project

* Academic Ranking of World Universities 2013
Specialisations

The four key biotechnology areas provide a focused learning experience in areas of key demand. You will complete all core units and specialisation units. This degree also provides the flexibility to choose from a range of units to complement your specific interests and focus.

- **Genetics and Breeding**: The application of biotechnology at core and advanced level to the breeding of animals and plants. Using genes as a basis, the units explore evolutionary genetics and the use of genetics to generate and monitor new traits.
- **Environmental Biotechnology**: The application of biotechnology to the environmental arena. Biotechnological applications for environmental monitoring, protection and food security in a changing world.
- **Genetics and Genomics**: Advanced studies in current state-of-the-art genomics and genetics techniques, from high throughput systems for analysing genomic components, to advanced bioinformatics components, for large data set analyses and database searching.
- **Biochemistry and Molecular Biology**: Advanced training and studies using new generation biochemistry and molecular biology techniques to understand cellular content, structure, organisation and interactions assessed with the current state-of-the-art technologies.

You may apply to replace the equivalent of half a year’s units with a research project.

Admission requirements

You must have a relevant bachelor’s degree.

**English Language Competence**

You must demonstrate a minimum level of English Language Competence.

See [studyat.uwa.edu.au/undergraduate/admission/english](studyat.uwa.edu.au/undergraduate/admission/english)

Key information

While the standard timeframe for completion of this degree is two years (full time), if you have previously completed an undergraduate degree in a cognate (related) area it may be possible to complete within 1.5 years.

Example cognate areas are: Agricultural Science, Biochemistry and Molecular Biology; Botany; Conservation Biology; Environmental Science; Genetics; Marine Science; Zoology.

Partial scholarships are available for high achieving international students. See [science.uwa.edu.au/courses/scholarships](science.uwa.edu.au/courses/scholarships).

Intake periods: February and July each year

How to apply

The University of Western Australia
M083, 35 Stirling Highway
Crawley, WA 6009
[studyat.uwa.edu.au/applynow](studyat.uwa.edu.au/applynow)

Course enquiries

Email: postgrad-science@uwa.edu.au
Online enquiries: [ask.uwa.edu.au](ask.uwa.edu.au)
[science.uwa.edu.au](science.uwa.edu.au)

International students should also visit [international.uwa.edu.au/studentnet/esos](international.uwa.edu.au/studentnet/esos) which gives more information about the study environment, course fees and refund policy, support services, and schooling obligations for dependent children.