



Specialisation

Biotechnology

BIOTA1 | 84 Units of Credit

Overview

Biotechnology can be defined as the use of various biological processes to make products and perform services. The essential feature of biotechnology therefore is the use of biological processes based on living cells and biochemical macromolecules such as proteins, DNA and RNA in a rapidly-expanding range of activities of benefit to mankind.

Faculty

Faculty of Science

School

School of Biotechnology and Biomolecular Sciences

Study Level

Undergraduate

Minimum Units of Credit

84

Specialisation Type

Major

Available in Program(s)

Program(s) in which this major is available

Bachelor of Science and Business - **BSc&Bus**

3925 Science and Business

Faculty: Faculty of Science

Campus: Kensington

Units of Credit: 144

Typical Duration: 3 Years

Bachelor of Science - **BSc**

3970 Science

Faculty: Faculty of Science

Campus: Kensington

Units of Credit: 144

Typical Duration: 3 Years

Bachelor of Science (International) - **BSc(International)**

3987 Science (International)

Faculty: Faculty of Science

Campus: Kensington

Units of Credit: 192

Typical Duration: 4 Years

Specialisation Structure

Students must complete 84 UOC.

Level 1 Core Courses

Students must take 36 UOC of the following courses.

BABS1201 | 6 UOC

Molecules, Cells and Genes

BABS1202 | 6 UOC

Applied Biomolecular Sciences

One of the following:

CHEM1011 | 6 UOC

Chemistry 1A: Atoms, Molecules and Energy

CHEM1031 | 6 UOC

Higher Chemistry 1A: Atoms, Molecules and Energy

One of the following:

CHEM1021 | 6 UOC

Chemistry 1B: Elements, Compounds and Life

CHEM1041 | 6 UOC

Higher Chemistry 1B: Elements, Compounds and Life

One of the following:

MATH1031 | 6 UOC

Mathematics for Life Sciences

MATH1131 | 6 UOC

Mathematics 1A

MATH1141 | 6 UOC

Higher Mathematics 1A

One of the following:

MATH1041 | 6 UOC

Statistics for Life and Social Sciences

MATH1231 | 6 UOC

Mathematics 1B

MATH1241 | 6 UOC

Higher Mathematics 1B

Level 2 Core Courses

Students must take 24 UOC of the following courses.

BABS2011 | 6 UOC

Current Trends in Biotechnology

BIOC2101 | 6 UOC

Principles of Biochemistry (Advanced)

BIOC2201 | 6 UOC

Principles of Molecular Biology (Advanced)

MICR2011 | 6 UOC

Microbiology 1

Level 3 Core Courses

Students must take 24 UOC of the following courses.

BABS3031 | 6 UOC

Biotechnology and Bioengineering

BABS3061 | 6 UOC

Medical Biotechnology

BABS3071 | 6 UOC

Commercial Biotechnology

Suggested Free Electives

Suggested Free Electives;

- ACCT1501 Accounting and Financial Management 1A
- MGMT2010 Innovation & Entrepreneurship

Suggested Science Electives

Level 2 Recommended courses:

- BABS2202 Molecular Cell Biology 1
- BABS2204 Genetics or BABS2264 Genetics (Advanced)

Level 2 Suggested courses:

- BINF2010 Introduction to Bioinformatics
- CHEM2021 Organic Chemistry: Mechanisms & Biomolecules
- CHEM2041 Analytical Chemistry: Essential Methods
- PHAR2011 Introductory Pharmacology and Toxicology
- SCIF2199 Science Work Placement

Level 3 Recommended courses:

- MICR3061 Viruses and Disease
- BABS3081 Bacteria & Disease
- MICR3071 Environmental Microbiology
- BABS3021 Microbial Genetics or MICR3621 Microbial Genetics (Advanced)
- BIOC3261 Human Biochemistry
- BABS3041 Immunology 1
- BIOC3111 Molecular Biology of Proteins
- BIOC3271 Molecular Cell Biology 2 or BIOC3671 Molecular Cell Biology 2 (Advanced)
- BABS3291 Genes, Genomes & Evolution
- BABS3151 Human Molecular Genetics & Disease
- BABS3121 Molecular Biology of Nucleic Acids or BABS3621 Molecular Biology of Nucleic Acids (Advanced)

Level 3 Suggested courses:

- BINF3010 Bioinformatics Methods & Applications
- BABS3281 Molecular Frontiers

Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.

Additional Information

Honours

For information about Honours in Biotechnology see the Biotechnology Honours plan or contact the [School of Biotechnology & Biomolecular Sciences \(BABS\)](#).

Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

[Pre-2019 Handbook Editions](#)

© UNSW Sydney (CRICOS Provider No.: 00098G), 2019. The information contained in this Handbook is indicative only. While every effort is made to keep this information up-to-date, the University reserves the right to discontinue or vary arrangements, programs and courses at any time without notice and at its discretion. While the University will try to avoid or minimise any inconvenience, changes may also be made to programs, courses and staff after enrolment. The University may also set limits on the number of students in a course.

Authorised by Deputy Vice-Chancellor (Academic)

CRICOS Provider Code 00098G

ABN: 57 195 873 179