

Diploma of Bioscience

Example Course Plans for Students

The following are example course plans for students studying in the Diploma of Bioscience.

Pathways

- Bachelor of Science
- Bachelor of Agricultural Sciences
- Bachelor of Animal and Veterinary Biosciences
- Bachelor of Biological Sciences
- Bachelor of Biomedicine

*** WAM requirements apply – please refer to course plans for more details. (WAM is the average mark obtained across all modules, including failed modules)**

Planned Module Availability - Diploma of Bioscience

Core Module – Students must complete the following modules

Module	Trimester 1	Trimester 2	Trimester 3
SCHE1CHF Chemistry Foundations*	✓	✓	✗
SBIO1MGC Molecules, Genes and Cells**	✓	✓	✗
SSTA1LS Statistics for Life Sciences	✓	✓	✗
HPHE1IDH Individual Determinants of Health	✓	✓	✓
SCHE1APL Applications of Chemistry*	✗	✓	✓
SBIO1EEB Ecology, Evolution and Biodiversity**	✗	✓	✓
HHLT1RAE Research and Evidence in Practice	✓	✓	✓

Elective Modules – Students should complete one of the following modules

Module	Trimester 1	Trimester 2	Trimester 3
HHLT1IPP Introduction to Professional Practice	✓	✓	✓
HHBS1HBB Human Biosciences B <i>Required module for Bachelor of Biomedicine</i>	✓	✓	✓
PPSY1CFP Clinical Foundations of Psychological Science	✗	✓	✓

Required 0 credit point module

All students are required to take and pass LTM1AIM Academic Integrity Module in their first trimester of study.

*Note: SCHE1CHF Chemistry Foundations must be successfully completed before students may enrol in SCHE1APL Applications of Chemistry.

**Note: SBIO1MGC Molecules, Genes and Cells and SBIO1EEB Ecology, Evolution and Biodiversity cannot be undertaken concurrently due to laboratory and workshop restrictions.

Suggested Example Course Study Outlines

YEAR 1 (DIPLOMA)	Fast Track (Completing In 8 months/2 trimesters) <i>Commencing Trimester 1, enter University in Semester 1 the following year</i>				
		COMPULSORY ONLINE MODULE (must be completed in your first trimester of study) LTM1AIM Academic Integrity Module			
	Trimester 1	SCHE1CHF (Core)	SBIO1MGC (Core)	HHLT1IDH (Core)	SSTA1LS (Core)
		Chemistry Foundations	Molecules, Genes and Cells	Individual Determinants of Health	Statistics for Life Sciences
	Trimester 2	SCHE1APL (Core)	SBIO1EEB (Core)	HHLT1RAE (Core)	Elective
		Applications of Chemistry	Ecology, Evolution and Biodiversity	Research and Evidence in Practice	

OR

YEAR 1 (DIPLOMA)	Normal Track (Completing course in 12 months/ 3 Trimesters) <i>Commencing Trimester 1, enter University in Semester 1 the following year</i>				
		COMPULSORY ONLINE MODULE (must be completed in your first trimester of study) LTM1AIM Academic Integrity Module			
	Trimester 1	SCHE1CHF (Core)	HHLT1IDH (Core)	SSTA1LS (Core)	
		Chemistry Foundations	Individual Determinants of Health	Statistics for Life Sciences	
	Trimester 2	SCHE1APL (Core)	SBIO1MGC (Core)	Elective	
		Applications of Chemistry	Molecules, Genes and Cells		
	Trimester 3	HHLT1RAE (Core)	SBIO1EEB (Core)		
		Research and Evidence in Practice	Ecology, Evolution and Biodiversity		

Recommended Electives

Students must complete an additional module from any other diploma course. Suggested modules include one of the following:

- [HHLT1IPP](#) Introduction to Professional Practice
- [PPSY1CFP](#) Clinical Foundations of Psychological Science
- [HHBS1HBB](#) Human Biosciences B (*required for all students wishing to undertake B.Biomed*)

When I transfer to La Trobe University I want to study

Bachelor of Science

Complete either of the above study plans, *AND*:

WAM requirement: 50% overall

Campus: Bundoora

Credits: 8 units

English requirement (International students only): Overall IELTS 6.0 (with no individual band score less than 6.0)

Bachelor of Biomedicine

Complete either of the above study plans, *AND*:

WAM requirement: 70% overall

Campus: Bundoora

Credits: 8 units

English requirement (International students only): Overall IELTS 6.5 (with no individual band score less than 6.0)

Elective requirement: Human Biosciences B (HHBS1HBB)

2nd course preference (transfers to this this course possible from): Bachelor of Biological Sciences *or* Bachelor of Science (Biochemistry, Microbiology or Genetics major)

Bachelor of Biological Sciences

Complete either of the above study plans, *AND*:

WAM requirement: 50% overall

Campus: Bundoora

Credits: 8 units

English requirement (International students only): Overall IELTS 6.0 (with no individual band score less than 6.0)

Bachelor of Animal and Veterinary Bioscience

Complete either of the above study plans, *AND*:

WAM requirement: 70% overall

Campus: Bundoora

Credits: 8 units

English requirement (International students only): Overall IELTS 6.0 (with no individual band score less than 6.0)

2nd course preference (transfers to this this course possible from): Bachelor of Agricultural Sciences *or* Bachelor of Science (Zoology or Genetics major)

Bachelor of Agricultural Sciences

Complete either of the above study plans, *AND*:

WAM requirement: 50% overall

Campus: Bundoora

Credits: 8 units

English requirement (International students only): Overall IELTS 6.0 (with no individual band score less than 6.0)

Module Descriptions

Core Modules

LTM1AIM Academic Integrity Module (online, zero credit point module, all students must complete this unit in their first trimester)

This module introduces students to the principals of academic integrity in the context of La Trobe University's values and policy. Students learn what their responsibilities are in relation to maintaining ethical standards in all aspects of academic work and the potential ramifications for academic misconduct according to the Academic Integrity Policy. Activities and quizzes are provided which are designed to develop and understanding of the concepts of cheating, plagiarism and collusion. Topics include an explaining of how the text-matching tool 'Turnitin' is used at La Trobe, and where to get help and where to go to develop referencing skills.

Assessment: Final Quiz (must achieve 8/10 to pass), Statement of Student responsibility (must achieve 10/10 to pass)

SCHE1CHF Chemistry Foundations

Chemistry Foundations chemistry is a foundation module designed for students who have no or little previous experience or study in chemistry. The aim of the module is to instil concepts, knowledge and skills that will enable these students to apply chemical principles and practice during their university degree and future employment. The content of the one trimester module covers topics common to senior high school chemistry and also prepares students to advance to second trimester chemistry.

Assessment: Online quizzes (15%), Topic tests (15%), Laboratory Report (20%), Exam (50%)

SBIO1MGC Molecules, Genes and Cells

Living organisms, with their many intricate and intriguing processes, are composed of lifeless molecules. SBIO1MGC takes a look at how those molecules are organised into the smallest unit of life, cells, across a range of organisms. SBIO1MGC also covers how those cells capture light energy, break down molecules to release energy, synthesise new molecules, communicate with other cells, and how the instructions to perform those functions are stored and passed on to the next generation.

Assessment: Online post practical quizzes (24%), Online module quizzes (16%), Oral presentation (5%), Written essay (10%), Final examination (45%)

HPHE1IDH Individual Determinants of Health

In this module students will develop the foundation knowledge for working with individuals in health and human services settings. Students will learn how particular characteristics and actions of an individual impact on health and welfare outcomes. Students will be: (i) presented with frameworks, including a developmental perspective, for understanding how the characteristics and actions of individuals impact on health outcomes; (ii) provided with foundation knowledge for understanding how individuals present in, and progress through, health settings; and (iii) reviewing theoretical approaches to producing individual change in health and wellbeing settings.

Assessment: Group Presentation (20%), Individual Poster Presentation (20%), Reflective assignment (15%), Exam (45%).

SSTA1LS Statistics for Life Sciences

This module provides an introduction to applied statistics, and strengthens basic numeracy skills. It introduces students to the basic applied statistical methods used in the biological sciences, medical sciences, agricultural sciences, nutrition, and health sciences. The three main areas of study are descriptive statistics, probability, and statistical inference and the use of a statistical computing package is an integral part of this module. The strengths and limitations of statistical models to enable informed thinking about sustainability are explored. This module is a possible pre-requisite for the second-year modules in statistics.

Assessment: 5 x 1200 word written assignments (30%), 10 x Online Quizzes (10%), Final examination (60%)

SCHE1APL Applications of Chemistry

This module aims to provide you with a further foundational concept and the knowledge of the first trimester chemistry units. It fully prepares you to advance to second year studies in chemistry or apply chemistry knowledge and skills within your chosen discipline. This module includes specific applications of chemistry to the manufacture of synthetic materials, identifying and alleviating chemical pollution, and the chemistry of living organisms. Chemistry Foundations is a pre-requisite to study this module.

Assessment: Online quizzes (15%), Topic tests (15%), Laboratory Report (20%), Exam (50%)

SBIO1EEB Ecology, Evolution and Biodiversity

The evolution of life on earth is a product of the interaction between organisms and the environment. SBIO1EEB will explore the amazing diversity of life from a global and Australian perspective. How population genetics allows evolutionary changes of adaptation over both short and long periods of time will be discussed. SBIO1EEB will also explain ecological forces that determine the distribution of life forms, the flow of energy through ecosystems and the dynamics of natural populations.

Assessment: Online quizzes (36%), Written Assignment (19%), Final examination (45%)

HHLTRAE Research and Evidence in Practice

This module is an introduction to the use of research-based evidence in professional health care practice. Working in interprofessional teams and using a range of case scenarios, students will develop research skills in areas relevant to their field of practice. Through online activities and workshops, students will learn about the role of evidence-based practice in health. Areas of study include systematic approaches to acquiring evidence, critical appraisal of the literature, interpretation of research design, descriptive and inferential statistics and assessment of research outcomes. Students will learn how an evidence-based approach in health informs clinical practice. Students will develop research skills to determine the most appropriate intervention techniques for application in a given clinical population, while understanding the complex interaction between social, economic and environmental influences that contribute to sustainability thinking in health research.

Assessment: In classes quizzes (30%), Search Strategy (5%), In class article summary (15%), Essay (30%), Oral presentation (20%)

Suggested Elective Modules

HHBS1HBB Human Biosciences B

**Students wishing to articulate into Bachelor of Biomedicine must complete Human Biosciences B*

***Advisable for MGC to be completed prior (HBB content builds on HBA content)*

This is a basic anatomy module which concentrates on anatomical structures and their function and is a core module within the Health Sciences first year. It has 60 contact hours of teaching and includes both small group and computer-based activities as well as demonstrations of anatomical models. This will be occurring in the workshops as well as the scheduled lectures. In this module the concepts of human structure and function will be applied to a detailed study of the musculoskeletal and nervous systems. Anatomical principles and terminology will be applied to relevant body systems and the concept of integrated function of multiple systems in one body region will be introduced.

Assessment: 10 x Workshop Quizzes (20%), Tutorial Quiz (20%), Group Assignments (20%), Exam (40%)

HHLT1IPP Introduction to Professional Practice

Introduction to Professional Practice is a module which will introduce you to the health care system; as a consumer participants, as a health and human services practitioner and as part of a health care team.

This module also offers you the opportunity to reflect on your own experiences within the health care system, and to use this to analyse and develop your understanding of health and human services. Group work is an essential component of University studies, and you will explore the nature of group work and team based assessment, as used across all modules. Concurrent with HHLT1IPP is HHLT1LHS Learning in Health Sciences, which covers academic skills such as referencing, academic writing and presentations, critical analysis, and academic integrity.

Assessment: Class Tests (20%), Case Study (20%), Essay (30%), Exam (30%)

PPSY1CFP Clinical Foundations of Psychological Science

*** Advisable for MGC and LS to be completed prior (CFP content builds on EFP content)*

This module is designed to introduce students to a range of statistical methods used in contemporary research. The material covered in this module aims to help students understand statistical principles through the introduction of basic statistical procedures. This module will also help students comprehend statistical analyses in scientific research papers. The statistical computing package SPSS is an integral part of this module with weekly practice classes held in a computer laboratory.

Assessment: 500 word Minor Essay (10%), Online Quiz (5%), 1500 word Major Essay (35%), Exam (50%)