Diploma of Science

Course code X087

Course Outline (T3 2023)

Campus	Geelong Waurn Ponds Campus
Intake	March, June, November
CRICOS	063387K
Course Duration	The duration of the Diploma course is three trimesters (12 months). There is an option, however, to fast track the course and complete it in two trimesters (8 months).
Mode of Delivery	On Campus: (International and Domestic Students) Generally, four hours of class contact per week are allocated to each unit. Online: (Domestic Students Only) Weekly self-directed study + one to two hours of scheduled contact per week administered online (Zoom/MsTeams) Some units have additional laboratory hours/practical classes.
Assessment	Assessment for all units is ongoing and continuous consisting of tests, assignments and case study analysis. Most units have a final two-hour examination. Both on campus and online students are expected to complete assessments as per the scheduled dates provided in Unit Outlines and/or the exam timetable.
Course Structure	Eight credit point units must be completed and passed to be awarded the Diploma. If you are a domestic student, you can enrol in 1 to 4 units, also known as modules (25%-100% study load) each trimester. If you are seeking Centrelink assistance, you must enrol in 3 or 4 units. If you are an international student, we recommend you enrol in 3 or 4 units, also known as modules (75%-100% study load) per trimester in order to meet progression requirements to Deakin University, as outlined in your offer letter.
Units	HBS107 Understanding Health HBS109 Introduction to Anatomy and Physiology HSN101 Foundations of Food Nutrition and Health (available in T1 and T3) SLE102 Physical Geography SLE103 Ecology and the Environment SLE109 Foundation for Environmental Science^ SLE111 Cells and Genes* SLE112 Fundamentals of Forensic Science*

	SLE115 Essential Skills in Bioscience^ SLE121 Environmental Sustainability SLE123 Physics for the Life Sciences SLE132 Biology: Form and Function* SLE133 Chemistry in Our World* SLE155 Chemistry for the Professional Sciences** SIT190 Introduction to Functions, Relations and Graphs SIT191 Introduction to Statistics and Data Analysis SIT194 Introduction to Mathematical Modelling Note: All Diploma of Science students must complete a Laboratory and Fieldwork Safety Induction Program (SLE010), and STP050 Academic Integrity which are three hour online training modules. These units are 0 credit point units and do not count toward your required 8 credit points. * For SLE111, SLE112, SLE132, SLE133 and SLE155 you must complete SLE010 Laboratory and Fieldwork Safety Induction Program as a co-requisite unit ** You must successfully complete SLE133 Chemistry in our World before enrolling in SLE155 Chemistry for the professional sciences (Pre-requisite). ^SLE115 Essential Skills in Bioscience and SLE109 Fundamentals of Environemtnal Science are incompatable. Students cannot complete both units within the Diploma of Science.
Units with on campus requirements	The following units have compulsory on campus attendance requirements* • SLE103 – All students regardless of study mode will be required to attend 1 day on campus to complete a mandatory assessment/presentation per trimester. The exact date will be communicated to students at the start of the trimester. * • SLE115 – All students regardless of study mode will be required to attend 1 day on campus to complete a mandatory assessment/presentation per trimester. The exact date will be communicated to students at the start of the trimester. * • SLE109 – All students regardless of study mode will be required to attend 1 day on campus to complete a mandatory assessment/presentation per trimester. The exact date will be communicated to students at the start of the trimester. * • SLE102 – All students regardless of study mode will be required to attend 4 on campus practical sessions per trimester. The exact dates will be communicated to students at the start of the trimester. * • SLE111 – All students regardless of study mode will be required to attend 5 on campus practical sessions per trimester. The exact dates will be communicated to students at the start of the trimester. * • SLE132 – All students regardless of study mode will be required to attend 5 on campus practical sessions per trimester. The exact dates will be communicated to students at the start of the trimester. * • SLE133 – All students regardless of study mode will be required to attend 5 on campus practical sessions per trimester. The exact dates will be communicated to students at the start of the trimester. * • SLE155 – All students regardless of study mode will be required to attend 5 on campus practical sessions per trimester. The exact dates will be communicated to students at the start of the trimester. *

	• HBS109 – All students regardless of study mode will be required to attend 4 on campus practical sessions per trimester. The exact dates will be communicated to students at the start of the trimester. If you have any questions regarding these units, please reach out to your Academic Coordinator *Requirements are subject to change
Transfer to Deakin University	The following transfer criteria apply: • You must complete and pass eight Deakin College Diploma of Science units*. • You must achieve the required Weighted Average Mark (WAM) for your Deakin College diploma taking into account all units attempted at Deakin College (required WAM's are included under each Deakin degree on the following pages). * Transfer to some degrees requires specific Deakin College units to be completed in order to receive the appropriate credits (see Deakin University degrees below). It is strongly recommended that students consult the Deakin University Handbook to check the academic requirements of their proposed course.

Diploma of Science (Geelong)
Example Course Plans for Students

Example Course Plans for Students

The following are a series of example course plans for students studying in the Diploma of Science at Deakin College.

The following course plans should be used as a guide only. In some cases the order of units may be varied. However, choosing course plans that are the same or similar to the suggested plans below should, in most cases, minimise clashes and the time taken to complete your diploma.

How to use the Plans

Students need to select or choose which Deakin University Course they wish to transfer into once they have completed their studies at Deakin College. Deakin University offers direct transfer into the following courses

- Bachelor of Science
- Bachelor of Biomedical Science
- Bachelor of Forensic Science
- Bachelor of Zoology & Animal Science
- Bachelor of Environmental Science (Environmental Management & Sustainability)
- Bachelor of Environmental Science (Wildlife & Conservation Biology)

Optional Support Program

FNDH021 Foundation Chemistry is an optional support unit available for students with no previous chemistry study. This unit can be completed in the first trimester of the normal track program. As a consequence the diploma chemistry units (SLE133 and SLE155) occur one trimester later than the normal track program, but can be completed within three trimesters. It is not a required unit to complete the Diploma of Science. Contact your Academic Coordinator for more information if you wish to complete this unit. A fee (up-front) is applicable to FNDH021.

Unit Availability –Diploma of Science (Waurn Ponds)

Unit	Trimester 1	Trimester 2	Trimester 3
HBS107 Understanding Health	✓	✓	✓
HBS109 Introduction to Anatomy and Physiology	✓	✓	✓
HSN101 Foundations of Food Nutrition and Health	✓	X	✓
SLE102 Physical Geography	✓	✓	✓
SLE103 Ecology & the Environment	✓	✓	✓
SLE109 Foundation for Environmental Science	✓	✓	✓
SLE111 Cells and Genes	✓	✓	✓
SLE112 Fundamentals of Forensic Science	TBA	X	X
SLE115 Essential Skills in Bioscience	✓	✓	✓
SLE121 Environmental Sustainability	✓	✓	✓
SLE123 Physics for the Life Sciences	✓	✓	✓
SLE132 Biology: Form and Function	✓	✓	✓
SLE133 Chemistry in our World	✓	✓	✓
SLE155 Chemistry for the Professional Sciences	✓	✓	✓
SIT190 Introduction to Functions, Relations and Graphs	✓	✓	✓
SIT191 Introduction to Statistics and Data Analysis	✓	✓	✓
SIT194 Introduction to Mathematical Modelling	✓	✓	✓

Support Unit

Unit	Trimester 1	Trimester 2	Trimester3
FNDH021 Chemistry	✓	✓	✓

When I transfer to Deakin University I want to study:
Bachelor of Science (B, WP)
Entry to Deakin University T1 T2

International Students WAM: **B** 50 **WP** 50
Australian Students WAM: **B** 50 **WP** 50
Credits for Transfer: 8

Please note students must complete one of the following majors

● Animal Biology (B,WP) ● Cell Biology and genomics (B,WP) ● Chemistry (B, WP) ● Environmental Science (B)● Food Science (B) ● Human Biology (B,WP) ● Mathematical Modelling (B,WP,Online) ● Plant Biology (B)

Fast Track (Completing In 8 months/2 trimesters)						
1st Trimester	**CORE** SLE111 Cells and Genes*	**CORE** SLE133 Chemistry in our World*	**CORE** SLE115 Essential Skills in Bioscience	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE103 Ecology and Environment	**CORE** SLE123 Physics for the Life Sciences	**CORE** SLE155 Chemistry for the Professional Sciences**	**CORE** SIT191 Introduction to Statistics and Data Analysis **OR** SIT190 Introduction to Functions, Relations and Graphs		

Normal Track (Completing course in 12 months/ 3 Trimesters)					
1st Trimester	**CORE** SLE111 Cells and Genes*	**CORE** SLE133 Chemistry in our World*	**CORE** SLE115 Essential Skills in Bioscience	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE103 Ecology and Environment	**CORE** SLE155 Chemistry for the Professional Sciences**	**CORE** SIT191 Introduction to Statistics and Data Analysis **OR** SIT190 Introduction to Functions, Relations and Graphs		
3rd Trimester	**CORE** SLE123 Physics for the Life Sciences	**Elective**			

Electives

Students wishing to major in the following areas should include the following units in their electives:

- Animal Biology (B, WP) – SLE132 Biology Form and Function
- Environmental Science (B) – SLE102 Physical Geography
- Human Biology (B, WP) – HBS109 Introduction to Anatomy and Physiology
- Mathematical Modelling (B,WP) – SIT194 Introduction to Mathematical Modelling
- Plant Biology (B) – SLE132 Biology Form and Function
- It is recommended that students intending to take the Chemistry, Human Biology, Cell Biology and Genomics, Animal Biology, Plant Biology or Environmental Science majors undertake SIT191 Introduction to Statistics and Data Analysis.
- Students intending to take the Chemistry major and who have not previously completed VCE Maths Methods (units 3 and 4) are advised to alternatively undertake SIT190 Introduction to Functions, Relations and Graphs.
- For students intending to take the Mathematical Modelling major and who have not completed VCE Maths Methods (units 3 and 4) are strongly advised to complete SIT190 Introduction to Functions, Relations and Graphs.

Other Electives can include any of the following:

- HBS107 Understanding Health
- HBS109 Introduction to Anatomy and Physiology
- HSN101 Foundations of Food, Nutrition and Health (available in T1 and T3)
- SLE102 Physical Geography
- SLE112 Fundamentals of Forensic Science
- SLE121 Environmental Sustainability
- SLE132 Biology: Form and Function*
- SIT194 Introduction to Mathematical Modelling

* For SLE111, SLE132, SLE112, SLE155 and SLE133 you must complete SLE010 Laboratory and Fieldwork Safety Induction Program as a co-requisite unit.
** You must successfully complete SLE133 Chemistry in our World before enrolling in SLE155 Chemistry for the professional sciences (Pre-requisite).

Additional 1st Year Units to be taken at Deakin University

All students are required to complete STP010 Career Tools for Employability at Deakin University. Students wishing to undertake the majors listed below will need to complete additional units:

Major	Additional Units
Mathematical Modelling (B, WP, online)	SIT192 Discrete Mathematics
Food Science	HSN106 Food Fundamentals HSN010 Food and Nutrition Laboratory Safety

When I transfer to Deakin University I want to study
Bachelor of Biomedical Science (B G)
Entry to Deakin University T1, T2

International Students WAM: **B** 50 **WP** 50
Australian Students WAM: **B** 70 **WP** 60
Credits for Transfer: 8

The following majors are available:

● Molecular Life Sciences (B, WP) ● Environmental Health (B,WP) ● Infection and Immunity (B,WP)
● Medical Biotechnology (B,WP) ● Pharmaceutical Science (B,WP) ● Medical Genomics (B, WP)

Fast Track (Completing In 8 months/2 trimesters)						
1st Trimester	**CORE** SLE111 Cells and Genes*	**CORE** SLE115 Essential Skills in Bioscience	**CORE** SLE133 Chemistry in our World*	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE123 Physics for the Life Sciences	**CORE** SLE132 Biology: Form and Function*	**CORE** SLE155 Chemistry for the Professional Sciences**	**Elective**		

Normal Track (Completing course in 12 months/ 3 Trimesters)					
1st Trimester	**CORE** SLE111 Cells and Genes*	**CORE** SLE115 Essential Skills in Bioscience	**CORE** SLE133 Chemistry in our World*	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE132 Biology: Form and Function*	**CORE** SLE155 Chemistry for the Professional Sciences**	**Elective**		
3rd Trimester	**CORE** SLE123 Physics for the Life Sciences	**Elective**			

Other Electives can include any of the following:

- HBS107 Understanding Health
- HBS109 Introduction to Anatomy and Physiology
- HSN101 Foundations of Food, Nutrition and Health (available in T1 and T3)
- SLE102 Physical Geography
- SLE103 Ecology and the Environment
- SLE112 Fundamentals of Forensic Science
- SLE121 Environmental Sustainability
- SIT190 Introduction to Functions, Relations and Graphs
- SIT191 Introduction to Statistics and Data Analysis
- SIT194 Introduction to Mathematical Modelling

* For SLE111, SLE132, SLE112, SLE155 and SLE133 you must complete SLE010 Laboratory and Fieldwork Safety Induction Program as a co-requisite unit.
** You must successfully complete SLE133 Chemistry in our World before enrolling in SLE155 Chemistry for the professional sciences (Pre-requisite).

Additional 1st Year Units to be taken at Deakin University

All students are required to complete STP010 Career Tools for Employability at Deakin University. Students Students wishing to undertake the majors listed below will need to complete additional units:

Major	Additional Units
Infection and Immunity (B, WP)	HMM103 Cell Technology
Medical Biotechnology (B, WP)	HMM101 Introduction to Medical Biotechnology and HMM102 Principles of Gene and Genomic Technology
Medical Genomics (B, WP)	HMM102 Principals of Gene and Genomic Technology HMM105 Applied Ethics
Molecular Life Sciences (B, WP)	HMM105 Applied Ethics

When I transfer to Deakin University I want to study:
Bachelor of Forensic Science (WP)
Entry to Deakin University T1 T2

International Students WAM: **WP** 50
Australian Students WAM: **WP** 50
Credits for Transfer: 8

The following majors are available:
● Forensic Biology ● Forensic Chemistry

Fast Track (Completing In 8 months/2 trimesters)						
1st Trimester	**CORE** SLE111 Cells and Genes*	**CORE** SLE133 Chemistry in our World*	**Elective**	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE112 Fundamentals of Forensic Science*	**CORE** SLE132 Biology: Form and Function*	**CORE** SLE155 Chemistry for the Professional Sciences**	**CORE** SIT191 Introduction to Statistics and Data Analysis		

Normal Track (Completing course in 12 months/ 3 Trimesters)					
1st Trimester	**CORE** SLE111 Cells and Genes*	**CORE** SLE133 Chemistry in our World*	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE112 Fundamentals of Forensic Science *	**CORE** SLE132 Biology: Form and Function*	**CORE** SLE155 Chemistry for the Professional Sciences**		
3rd Trimester	**CORE** SIT191 Introduction to Statistics and Data Analysis	**Elective**			

Other Electives can include any of the following:

- HBS107 Understanding Health
- HBS109 Introduction to Anatomy and Physiology
- HSN101 Foundations of Food, Nutrition and Health (available in T1 and T3)
- SLE102 Physical Geography
- SLE103 Ecology and the Environment
- SLE109 Foundation for Environmental Science^
- SLE115 Essential Skills in Bioscience^
- SLE121 Environmental Sustainability
- SLE123 Physics for the Life Sciences
- SIT190 Introduction to Functions, Relations and Graphs
- SIT194 Introduction to Mathematical Modelling

* For SLE111, SLE132, SLE112, SLE155 and SLE133 you must complete SLE010 Laboratory and Fieldwork Safety Induction Program as a co-requisite unit.
** You must successfully complete SLE133 Chemistry in our World before enrolling in SLE155 Chemistry for the professional sciences (Pre-requisite).
^SLE115 Essential Skills in Bioscience and SLE109 Fundamentals of Environmental Science are incompatible. Students cannot complete both units within the Diploma of Science.

Additional 1st Year Units to be taken at Deakin University

All students are required to complete ACR102 Introducing Crime and Criminal Justice and STP010 Career Tools for Employability (0 credit point) at Deakin University.

When I transfer to Deakin University I want to study:
Bachelor of Zoology and Animal Science (WP)
Entry to Deakin University T1 T2

International Students WAM: **WP** 50
Australian Students WAM: **WP** 50
Credits for Transfer: 8

Fast Track (Completing In 8 months/2 trimesters)						
1st Trimester	**CORE** SLE111 Cells and Genes*	**CORE** SLE133 Chemistry in our World*	**Elective**	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE103 Ecology and Environment	**CORE** SLE123 Physics for the Life Sciences	**CORE** SLE132 Biology: Form and Function*	**CORE** SLE155 Chemistry for the Professional Sciences**		

Normal Track (Completing course in 12 months/ 3 Trimesters)					
1st Trimester	**CORE** SLE111 Cells and Genes*	**CORE** SLE133 Chemistry in our World*	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE103 Ecology and Environment	**CORE** SLE132 Biology: Form and Function*	**CORE** SLE155 Chemistry for the Professional Sciences**		
3rd Trimester	**CORE** SLE123 Physics for the Life Sciences	**Elective**			

Other Electives can include any of the following:

- HBS107 Understanding Health
- HBS109 Introduction to Anatomy and Physiology
- HSN101 Foundations of Food, Nutrition and Health (available in T1 and T3)
- SLE102 Physical Geography
- SLE109 Foundation for Environmental Science^
- SLE112 Fundamentals of Forensic Science
- SLE115 Essential Skills in Bioscience^
- SLE121 Environmental Sustainability
- SIT190 Introduction to Functions, Relations and Graphs
- SIT191 Introduction to Statistics and Data Analysis
- SIT194 Introduction to Mathematical Modelling

* For SLE111, SLE132, SLE112, SLE155 and SLE133 you must complete SLE010 Laboratory and Fieldwork Safety Induction Program as a co-requisite unit.
** You must successfully complete SLE133 Chemistry in our World before enrolling in SLE155 Chemistry for the professional sciences (Pre-requisite).
^SLE115 Essential Skills in Bioscience and SLE109 Fundamentals of Environmental Science are incompatible. Students cannot complete both units within the Diploma of Science.

Additional 1st Year Units to be taken at Deakin University

All students are required to complete STP010 Career Tools for Employability (0 credit points) at Deakin University.

When I transfer to Deakin University I want to study:
Bachelor of Environmental Science (Environmental Management and Sustainability) (B)
Entry to Deakin University T1 T2

International Students WAM: **B** 50
Australian Students WAM: **B** 50
Credits for Transfer: 8

Fast Track (Completing In 8 months/2 trimesters)						
1st Trimester	**CORE** SLE102 Physical Geography	**CORE** SLE109 Foundation for Environmental Science	**Elective**	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE103 Ecology and Environment	**CORE** SLE121 Environmental Sustainability	**Elective**	**Elective**		

Normal Track (Completing course in 12 months/ 3 Trimesters)					
1st Trimester	**CORE** SLE102 Physical Geography	**CORE** SLE109 Foundation for Environmental Science	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE103 Ecology and Environment	**CORE** SLE121 Environmental Sustainability	**Elective**		
3rd Trimester	**Elective**	**Elective**			

Other Electives can include any of the following:

- HBS107 Understanding Health
- HBS109 Introduction to Anatomy and Physiology
- HSN101 Foundations of Food, Nutrition and Health (available in T1 and T3)
- SLE111 Cells and Genes*
- SLE112 Fundamentals of Forensic Science
- SLE123 Physics for the Life Sciences
- SLE132 Biology: Form and Function*
- SLE133 Chemistry in Our World*
- SLE155 Chemistry for the Professional Sciences**
- SIT190 Introduction to Functions, Relations and Graphs
- SIT191 Introduction to Statistics and Data Analysis
- SIT194 Introduction to Mathematical Modelling

* For SLE111, SLE132, SLE112, SLE155 and SLE133 you must complete SLE010 Laboratory and Fieldwork Safety Induction Program as a co-requisite unit.
** You must successfully complete SLE133 Chemistry in our World before enrolling in SLE155 Chemistry for the professional sciences (Pre-requisite).

Additional 1st Year Units to be taken at Deakin University

All students are required to complete SLE101 Environmental Techniques and Monitoriing and STP010 Career Tools for Employability at Deakin University.

When I transfer to Deakin University I want to study:
Bachelor of Environmental Science (Wildlife and Conservation Biology) (B)
Entry to Deakin University T1 T2 T3

International Students WAM: **B** 50
Australian Students WAM: **B** 50
Credits for Transfer: 8

Fast Track (Completing In 8 months/2 trimesters)						
1st Trimester	**CORE** SLE102 Physical Geography	**CORE** SLE111 Cells and Genes*	**CORE** SLE109 Foundation for Environmental Science	**Elective**	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE103 Ecology and Environment	**CORE** SLE132 Biology: Form and Function*	**Elective**	**Elective**		

Normal Track (Completing course in 12 months/ 3 Trimesters)					
1st Trimester	**CORE** SLE102 Physical Geography	**CORE** SLE111 Cells and Genes*	**CORE** SLE109 Foundation for Environmental Science	**Safety Unit** (required) SLE010	**Academic Integrity** (required) STP050
2nd Trimester	**CORE** SLE103 Ecology and Environment	**CORE** SLE132 Biology: Form and Function*	**Elective**		
3rd Trimester	**Elective**	**Elective**			

Other Electives can include any of the following:

- HBS107 Understanding Health
- HBS109 Introduction to Anatomy and Physiology
- HSN101 Foundations of Food, Nutrition and Health (available in T1 and T3)
- SLE112 Fundamentals of Forensic Science
- SLE121 Environmental Sustainability
- SLE123 Physics for the Life Sciences
- SLE133 Chemistry in Our World*
- SLE155 Chemistry for the Professional Sciences**
- SIT190 Introduction to Functions, Relations and Graphs
- SIT191 Introduction to Statistics and Data Analysis
- SIT194 Introduction to Mathematical Modelling

* For SLE111, SLE132, SLE112, SLE155 and SLE133 you must complete SLE010 Laboratory and Fieldwork Safety Induction Program as a co-requisite unit.
** You must successfully complete SLE133 Chemistry in our World before enrolling in SLE155 Chemistry for the professional sciences (Pre-requisite).

Additional 1st Year Units to be taken at Deakin University

All students are required to complete SLE151 Biodiversity: A Global Perspective, SLE114 Introduction to Parks and Wildlife Conservation and STP010 Career Tools for Employability at Deakin University.

Deakin University Campuses and Trimester codes

B Melbourne Burwood Campus **WP** Geelong Waurn Ponds Campus **WB** Warrnambool Campus
T1 Trimester 1 entry **T2** Trimester 2 entry **T3** Trimester 3 entry
NOTE: for Australian students entry is for T1 only. T2 and T3 entry is subject to availability of places.

CRICOS Codes: Bachelor of Science 083996G, Bachelor of Biomedical Science 085577M, Bachelor of Forensic Science 073106G, Bachelor of Zoology and Animal Science 075365F, Bachelor of Environmental Science (Environmental Management and Sustainability) 075361K, Bachelor of Environmental Science (Wildlife and Conservation Biology) 055286D.

Unit Outlines

PLEASE ENSURE YOU CHECK THE UNIT OUTLINE FOR ANY CONTENT AND ASSESSMENT UPDATES.

HBS107 Understanding Health

This interdisciplinary unit examines a determinants approach to health and wellbeing, including: the complex range of interactions that influence the health of individuals and populations; the determinants of selected health issues in urban and rural Australia, as well as in global contexts, and explores a range of models and approaches and their impact on health outcomes.

Topics include: The concepts of health, the social determinants of health, health systems, the biological and environmental determinants, health promotion, indigenous health, settings for health, marginalised populations and global health.

Assessment task 1: Self-awareness audit and reflection (1000 words); Assessment task 2: health plan review (1600 words) 40%; Assessment task 3:group oral presentation 35%

HBS109 Introduction to Anatomy and Physiology

This interdisciplinary unit provides an overview of the basic sciences of human anatomy and physiology, exploring issues of relevance to the health sciences.

Specific topics to be addressed will include: organisation of the human body, outlining anatomical terms, chemical and structural bases of cell function, body tissues including integument, homeostasis and physiological control via neural and hormonal mechanisms that maintain a constant internal environment. Support and movement through an understanding of the musculo-skeletal system, and maintenance of key systems, including cardiovascular, respiratory, digestive, urinary and immune systems.

Assessment: Introductory written assignment (10%), Case based learning (40%; Part 1: 15%, Part 2: 25%), multiple choice tests (2 x 10%, total 20%), Final exam 30%

HSN101 Foundations of Food, Nutrition and Health (available in T1 and T3)

This unit provides students with foundation knowledge in food, nutrition and health, including food sources of nutrients, food and nutrient recommendations for health and methods for measuring food intake and behaviour, historical perspective of why we consume the foods we do today and how our scientific knowledge may influence foods we eat in the future. Students also gain an understanding of interactions between the environment, technologies developed to produce and harvest foods and scientific advances in food and nutrition. The topics include: food history, Australian food culture, food production, food sources of nutrients, food and nutrient recommendations and their relationship with health and methods used to measure food intakes and behaviours. Students also have an opportunity to align their interests and values to future career options.

Assessment: Assessment task 1 – Written assignment (1300 words) 30%, Assessment task 2 – Case Study (800 words) 15%, Assessment Task 3 Career Activity and Reflection and Infogram (500 words) 20%, Final examination 35%

SLE102 Physical Geography

This unit will examine interactions between the major components of planet Earth - the geosphere, hydrosphere, biosphere and atmosphere. A particular emphasis is placed on the study of natural disasters and extreme natural events. Major topics will include the formation and subsequent evolution of the earth; plate tectonics; soils, weathering and erosion; the hydrological cycle - including interactions between oceans, rivers, groundwater and polar ice: Earth weather. Minor topics will include studies in the origin of the universe and solar system; the relationship between earth landforms and climate, global environmental change and the earth's energy and mineral resources.

Assessment: 20% practical tests (2 x 10%), 30% Class test 1, 20% assignment (5% essay plan, 15% essay), 30% Class test 2.

SLE103 Ecology and the Environment

This unit introduces the discipline of ecology, and key scientific ideas, with a specific focus on investigations into environmental issues relevant today. The aim of the unit is

to support students` understanding of the nature of science and the methods of science using a systems framework. The unit will have a major focus on the science of underlying issues impacting society today including climate systems and ecological systems. The content of the unit will include key concepts involved in scientific enquiry, climate systems and the impact of human activity on these systems, the concept of energy as a means of power for humans, as well as the driving force behind life on earth, the role science plays in environmental sustainability and the field of Ecology as a way of investigating the natural environment

Assessment: Group Poster Presentation 15%, Mid Trimester Test 20%, Written Report 25%, Examination 40%.

SLE109 Foundation for Environmental Science

This unit is the first of a series of professional practice units that are designed specifically for students in Environmental Science courses. In this unit, students will focus on developing strategies and skills that will maximise their learning during their courses, as well as gaining broadly applicable knowledge and skills that are fundamental to a successful career in any environmental science field. Students will learn these skills using real-world scenarios and case studies of current environmental science issues. Skills and contents covered will include career planning and strategies, scientific data management, fundamental statistical concepts, scientific communication, ethics and their implications, and digital literacy.

Assessment: Career planning report 20%, Seminar tasks 35%, Group oral presentation 25% (5% peer feedback, 15% presentation, 5% groupwork evaluation), Reflective report 20%.

SLE111 Cells and Genes*

In this unit, students will be able to study the characteristics of life that are fundamental for every field in biology. Upon successful completion of Cells and Genes, students will be able to explore, examine and describe the characteristics and structures of prokaryotic and eukaryotic cells as well as understand cellular mechanisms such as reproduction, transport across the membrane and cellular respiration. The genetic basis of cell biology is focused on in the latter part of the unit starting with Mendelian genetics. This leads on to interpreting patterns of inheritance, mechanisms and control of gene expression and the principles of DNA technologies.

You must have completed SLE010 in the current or a previous trimester, before you can attend any laboratory sessions.

Assessment: Class test 15%, bioinformatics assignment 10%, practical exercises 35%, examination 40%.

To obtain a pass in the unit, students must attend, submit and pass at least 4 of the 5 practical class assessments.

SLE112 Fundamentals of Forensic Science*

SLE112 is a fundamental forensics unit, during which students will explore forensic science in an Australian context and learn the challenges and differences of forensic science in a global context. This includes some of the key principles used to study the science, including Locard's exchange principle, principle of individuality, comparative analysis, and class and individual characteristics. Students will engage in activities that will require them to apply forensic processes from a crime scene to the court. It will also require them to apply introductory forensic analysis including chemical, biological and physical techniques and learn about the legal system including how law is developed, criminal vs civil law, and the laws of evidence.

You must have completed SLE010 in the current or a previous trimester, before you can attend any laboratory sessions.

Assessment: Two in-class tests (15% each) 30%, a reflective report 25%, practical report and practical skills demonstration (3 x 15%) 45%.

To be eligible to obtain a pass in this unit, students must achieve at least 50% in the practical report and practical skills demonstration assessment.

SLE115 Essential Skills in Bioscience

This is the first of a sequence of professional practice units designed specifically for students in the first year of biosciences. In this unit we will focus on the development of generic skills and will draw upon and extend the scientific content of other, core, first-year units. Through exercises and seminars, you will develop skills in data analysis and presentation, basic mathematics and statistics, library research methods, evaluation of scientific literature and scientific writing and referencing. You will also be introduced to the practice of being an ethical student and professional, and develop your skills in career planning, problem solving and oral and written presentation.

Assessment: ethics quiz 5%, literature search and essay plan 20%, mid-trimester test 20%, careers report 20%, group presentation 15%, exam 20%.

SLE121 Environmental Sustainability

The aim of SLE121 is to examine the scientific, social, cultural and environmental factors that are all integral components of Environmental Sustainability, on International, National and Local scales. This will necessitate a review of what definitions of sustainability there are and how they inter-relate in regards to environmental, social and economic management. The unit aims to develop the ability to: appreciate the diversity and complexity of environmental issues, identify environmental impacts due to human activities, appreciate the range of stakeholders and their viewpoints in relation to particular issues, understand the necessary measures and associated problems in achieving effective sustainable environmental management and understand the principles and applications of sustainable development.

Assessment: Reflective journal and report 40%, Synoptic essay 40%, Online tests 20% (2 x 10%).

SLE123 Physics for the Life Sciences

Students of the life sciences have a growing need to acquire an effective working knowledge of the physical sciences. In this unit, physics concepts such as energy, sound and waves, the properties of atoms, electric fields, optics, fluids and mechanics will be explored and related to biology and medicine. Students will use evidence to demonstrate and evaluate knowledge of fundamental physics principles, and will also have the opportunity to design and conduct their own experiments to evaluate how physics enables life.

Assessment: Assessment task 1 – Online quizzes (25%), Assessment task 2 - Experimental demonstration (35%), Assessment task 3- Final examination (40%).

SLE132 Biology: Form and Function

SLE132 introduces students to animal and plant biology. Students will explore the relationships between animal structures and their functions, and investigate the physiological processes that enable animals to adjust to environmental changes. They will also learn aspects of animal diversity and behaviour. As students progress learning in this unit, they will study the evolutionary diversity of plants, their structure and functions, morphology and growth, reproductive biology, nutrient acquisition and transport, and their applications in biotechnology, with an emphasis on flowering plants. Examples from other plant groups and the non-plant eukaryotes, fungi and algae, will also be used for comparison and as examples during discussion.

You must have completed SLE010 in the current or a previous trimester, before you can attend any laboratory sessions.

Assessment: 15% Mid trimester test, 35% practical exercises, 10% Assignment; 40% final examination.

To be eligible to obtain a pass in this unit, students must attend, submit and pass at least 4 of the 5 practical class assessments.

SLE133 Chemistry in Our World*

SLE133 is a foundation unit designed to develop and consolidate student understandings and skills in basic chemistry. The learning and assessment activities provide students with the opportunity to study atoms, molecules,

and ions, how they change during a chemical reaction and how bonding affects properties such as intermolecular interactions, boiling points, ease of evaporation and the ability of substances to dissolve in water. Students will engage in laboratory work in order to develop their hands on skills in chemical safety and measurement and their ability to perform calculations related to substance measurement. Students will then apply these concepts of bonding, chemical change and measurement to determine the acidity and basicity of substances and the formation of buffers.

This unit can be taken as a stand-alone unit for students who need some awareness of chemistry to broaden their degree, or can be taken as a foundation for further studies in biochemistry, chemistry, and related areas like food and nutrition, molecular biology and science education.

You must have completed SLE010 in the current or a previous trimester, before you can attend any laboratory sessions.

Assessment: Assessment task 1 – Online quizzes 20%, Assessment task 2 - Laboratory exercises and reports 30%, Assessment task 3 – tutorial goal setting and reflection activities 10%, Final examination 40%.

To be eligible to obtain a pass in the this unit, students must achieve at least 50% in the practical component.

SLE155 Chemistry for the Professional Sciences*

SLE155 builds on the student's previous chemistry knowledge about atoms, molecules, properties, reactions, measurement and acidity. Students will extend their knowledge to more advanced chemical naming, structures, and hypervalent bonding. They will be introduced to additional topics such as, chemical equilibria, solution chemistry, simple organic compounds, chirality and functional groups.

Students must successfully complete SLE133 before enrolling in SLE155.

Assessment: Online Quizzes 20%, Laboratory exercises and reports 40%, Examination 40%.

To be eligible to obtain a pass this unit, students must achieve at least 50% in the laboratory exercises and reports.

SIT190 Introduction to Functions, Relations and Graphs

This unit aims to develop the fundamental functions of applied mathematics, and to introduce calculus to students who have not previously studied it in secondary school. It is designed to prepare students from a number of different disciplines for learning tertiary level mathematics. Students will explore the algebra of polynomials, exponentials, logarithms and trigonometric functions and learn rules for differentiating and integrating these functions. Applications studied include graph sketching, maximisation and minimisation problems, areas and kinematics.
Assessment: 40% three assignments (10% + 15% + 15%), 60% final examination.

SIT191 Introduction to Statistics and Data Analysis

Data is everywhere in the world. Without knowing how to interpret or use information from the data it would be difficult to understand its meaning. Statistics is both a method and a tool for interpreting information, testing hypotheses and analysing the inferences people make about the real-world. SIT191 aims to aid students develop knowledge in using statistics to summarise, describe and interpret numerical and graphical data and perform statistical inferences. In this unit, students will develop knowledge of the fundamentals of probability for reasoning real-world situations. Students will be required to use statistical software and calculators to analyse data and interpret results for tests on population means and proportions, chi-square tests, correlation and linear regression, and one-way ANOVA.

Assessment: Weekly online quizzes (20%) and three problem solving tasks (20%, 30% and 30%) 80%.

SIT194 Introduction to Mathematical Modelling

SIT194 aims to develop the theory of calculus and analytic geometry and to apply it to formulating and solving problems in engineering and the physical sciences. This unit introduces students to the topics of functions and limits, derivatives and integrals of combinations of polynomials, exponential, logarithmic and trigonometric functions; sequences, series tests and power series; vectors, lines and planes; first order differential equations. Applications studied include graph sketching;

approximations to solutions of equations and integrals; formulation of models to solve science and engineering problems.

Assessment: Individual Tasks 50%, Examination 50%.

SLE010 Laboratory and Fieldwork Safety Induction Program

In SLE010, students will develop an awareness of safety measures and protocols to be followed in scientific laboratory work and fieldwork. The unit encompasses information about biological and chemical hazards, building evacuation procedures, laboratory accident management, first aid procedures and safety work procedures. Attendance in all practical classes and/or field trips may be restricted unless you have passed the online quiz with a mark of 70% or greater. Results for all units requiring the completion of SLE010 as a co-requisite may not be released until the quiz is passed.

Assessment: 100% multiple-choice examination (60 minutes) to be completed by the end of week 2. To be eligible to obtain a pass in this unit students must achieve a minimum mark of 70%. Multiple attempts at the quiz are permitted.

STP050 Academic Integrity

STP050 is a compulsory zero credit point unit in all courses in the Faculty of Science, Engineering and Built Environment. The unit learning and assessment activities provides students with guidance on what constitutes academic integrity. It will allow students to develop knowledge, skills and good practice principles to avoid plagiarism and collusion and thereby maintain academic integrity.

Assessment: Multiple-choice test 100%. To be eligible to obtain a pass in this unit, students must achieve a minimum mark of 85%. Unlimited attempts of the online assessment are permitted.