



**UOW**  
COLLEGE  
AUSTRALIA

—  
PATHWAYS TO  
UNIVERSITY OF  
WOLLONGONG

# Diploma of Medical and Health Sciences

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## Course Outline

# Contents

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1	Course Description .....	1
2	Graduate Qualities .....	2
3	Course Learning Outcomes .....	2
4	Course Learning Outcomes Mapped to Graduate Qualities .....	3
5	Course Structure and Subjects.....	4
6	Subjects Mapped to Course Learning Outcomes .....	6
7	Progression Guidelines .....	8
8	Assessment.....	9
9	Quality Assurance .....	10
10	Subject Descriptions .....	11
11	Version Control Table.....	17

# Diploma of Medical and Health Sciences

## Course Outline

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### 1 Course Description

The UOW College Australia (UOWCA) Diploma of Medical and Health Sciences provides students with a foundation in chemical and biological sciences where students gain an understanding of applied sciences, including the anatomical, molecular and physiological processes of human health and function. In the introductory phase of this course, students will complete subjects specifically designed to develop effective approaches to learning in the higher education context. In Sessions 2 and 3, students are provided with a range of learning experiences and opportunities in science discipline-based subjects which provide students with the experience of working in University of Wollongong (UOW) science laboratories. In these sessions, students are provided with dedicated support tutorials to support their success. The Diploma of Medical and Health Sciences provides students with pathways for entry into the second year of the Bachelor of Medical and Health Sciences, the Bachelor of Nutrition Science, and the Bachelor of Exercise Science at UOW, with specified credit of up to 48 credit points for subjects in the compulsory core components of these degrees.

Diploma qualifications are located at level 5 of the Australian Qualifications Framework. The purpose of the Diploma qualification type is to qualify individuals who apply integrated technical and theoretical concepts in a broad range of contexts to undertake advanced skilled or paraprofessional work and as a pathway for further learning.

## 2 Graduate Qualities

The Diploma of Medical and Health Sciences course is designed to assist students in developing the UOW College Australia Graduate Qualities. It helps students become:

1. **Informed:** Have a basic knowledge of an area of study and understand its issues. Know how to apply this knowledge.
2. **Independent Learners:** Begin to engage with new ideas and ways of thinking and critically analyse issues. Seek to extend knowledge through ongoing enquiry and active learning. Find and evaluate information, using a variety of sources and technologies. Acknowledge the work and ideas of others.
3. **Problem Solvers:** Demonstrate introductory levels of creative, logical and critical thinking skills to respond effectively to problems. Be flexible and thorough.
4. **Effective Communicators:** Articulate and convey ideas effectively using a range of media. Work collaboratively and engage with people in different settings.
5. **Responsible:** Understand how decisions can affect others and make ethically informed choices. Appreciate and respect diversity and act with integrity. Take responsibility for one's own learning and completion of assessment tasks.

## 3 Course Learning Outcomes

Graduates will be able to:

1. Demonstrate language and literacy skills in order to read, write, present and listen effectively at a tertiary level.
2. Demonstrate the ability to locate, evaluate and use information appropriately at a tertiary level.
3. Demonstrate the ability to utilise computer technology in order to function effectively in a university environment.
4. Demonstrate numeracy skills in order to interpret, understand and analyse information at a tertiary level.
5. Apply a range of skills that demonstrate independent learning.
6. Identify and discuss fundamental knowledge related to a range of medical and health sciences disciplines relevant to future university studies.
7. Professionally communicate health and science concepts in a range of health-related contexts.
8. Demonstrate effective teamwork skills in investigating and evaluating issues in health sciences.

## 4 Course Learning Outcomes Mapped to Graduate Qualities

The table below shows how the graduate qualities are integrated into the course learning outcome

Course Learning Outcomes/Graduate Qualities	1. Informed	2. Independent Learners	3. Problem Solvers	4. Effective Communicators	5. Responsible
1. Demonstrate language and literacy skills in order to read, write, present and listen effectively at a tertiary level.		✓		✓	
2. Demonstrate the ability to locate, evaluate and use information appropriately at a tertiary level.	✓	✓		✓	✓
3. Demonstrate the ability to utilise computer technology in order to function effectively in a university environment.	✓	✓		✓	✓
4. Demonstrate numeracy skills in order to interpret, understand and analyse information at a tertiary level.	✓		✓		
5. Apply a range of skills that demonstrate independent learning.		✓			✓
6. Identify and discuss fundamental knowledge related to a range of medical and health sciences disciplines relevant to future university studies.	✓	✓		✓	
7. Professionally communicate health and science concepts in a range of health-related contexts.	✓			✓	✓
8. Demonstrate effective teamwork skills in investigating and evaluating issues in health sciences.			✓	✓	✓

## 5 Course Structure and Subjects

### 3189: DIPLOMA MEDICAL AND HEALTH SCIENCES

**SESSION 1:** *This session runs on UOW College session dates and is offered in Autumn, Spring and Summer.*

Subject Code	Subject Name	Credit Points	Hours a Week
PREP030	Launch	2	2*
PREP031	Language for Learning	6	4
PREP032	Scientific Thinking	6	4
PREP034	Mathematics for the Sciences	8	8
<b>Total Session 1</b>		<b>22</b>	<b>18*</b>

### SESSION 2<sup>^</sup>

*This session runs on UOW session dates and is offered in Autumn session only.*

Subject Code	Subject Name (UOW Equivalent Subject Code)	Credit Points	Hours a Week
DMHS100#	Human Structure and Function (MEDI100)	6	4
DMHS150#	Fundamental Concepts in Nutrition (MEDI150)	6	4
DMHS160	Scientific Literacy (MEDI160)	6	4
DSCI106**	Foundation Chemistry: Properties of Matter (CHEM104)	6	7
DSCI107^^	Chemistry 1A: Introductory Physical and General Chemistry (CHEM101)		
<b>Total Session 2</b>		<b>24</b>	<b>19</b>

### SESSION 3<sup>^</sup>

*This session runs on UOW session dates and is offered in Spring session only.*

Subject Code	Subject Name (UOW Equivalent Subject Code)	Credit Points	Hours a Week
DMHS112	Introduction to Anatomy and Physiology II (MEDI112)	6	5
DMHS151#	Healthy Ageing (MEDI151)	6	4
DSCI112	Molecules, Cells & Organisms (BIOL103)	6	6
DMHS200##	Living in a Molecular World (CHEM200)	6	4
DSCI110**	Foundation Chemistry: Reactions and Structures (CHEM105)		7
DSCI111^^	Chemistry 1B: Structure and Reactivity of Molecules for Life (CHEM102)		8
<b>Total Session 3</b>		<b>24</b>	<b>19-23</b>

\* Weekly contact hours calculated for Launch are based on a sessional average.

<sup>^</sup>Session 2 and Session 3 subjects are not required to be studied in this sequence and can be taken in any order as determined by delivery availability and any pre-requisite rules in place.

#DMHS100 and DMHS150 are pre-requisites for DMHS151 Healthy Ageing. If, due to the sequence of study, students need to complete Spring sessions subjects (incl DMHS151) prior to their first

attempt of Autumn session subjects (incl DMHS100 and DMHS150), a waiver of this progression rule can be obtained.

### Chemistry Options

#### \*\* DSCI106 and DSCI110

- Students who have not achieved a minimum result of 65% in HSC Chemistry are eligible to enrol in DSCI106 and DSCI110.
- DSCI106 is a pre-requisite for DSCI110. Students must achieve a minimum result of 50% in DSCI106 before they are eligible to enrol in DSCI110.

#### ^^DSCI107 and DSCI111

- Students who have achieved a result of 65% or better in HSC Chemistry are eligible to enrol in DSCI107 and DSCI111.
- DSCI107 is a pre-requisite for DSCI111. Students must achieve a minimum result of 50% in DSCI107 before they are eligible to enrol in DSCI111.

#### ##DHMS200

- Students who have not yet completed the pre-requisite subjects (DSCI106 or DSCI107) which would enable them to enrol in DSCI110 or DSCI111 in Spring Session, should complete DMHS200 Living in a Molecular World.

### Bridging Subject

Applicants who do not meet the Mathematics course entry requirements as indicated via the link in Section 8 may be eligible to attempt a bridging subject, PREP033 Mathematics for the Humanities, to meet this requirement. Students who achieve a final subject mark of 50% in PREP033 will satisfy the Mathematics entry requirements to this course. Students must achieve a minimum result of 50% in PREP033 to be eligible to enrol in PREP034 Mathematics for the Sciences.

### Optional Electives

DPEN001 Principles of Physics for Engineers and DSCI103 Chemistry are available to Diploma of Medical and Health Sciences students, and are recommended for students who have not previously studied Physics and Chemistry, however, they are not required subjects. Students who elect to study these additional subjects are not required to pass the subjects in order to progress to the next session of the Diploma course or to their degree offer, and these subjects carry no credit transfer into UOW degree courses.

## 6 Subjects Mapped to Course Learning Outcomes

Subject/Course Learning Outcomes	1. Demonstrate language and literacy skills in order to read, write, present and listen effectively at a tertiary level.	2. Demonstrate the ability to locate, evaluate and use information appropriately at a tertiary level.	3. Demonstrate the ability to utilise computer technology in order to function effectively in a university environment.	4. Demonstrate numeracy skills in order to interpret, understand and analyse information at a tertiary level.	5. Apply a range of skills that demonstrate independent learning.	6. Identify and discuss fundamental knowledge related to a range of Medical and Health Sciences disciplines relevant to future university studies.	7. Professionally communicate health and science concepts in a range of health-related contexts.	8. Demonstrate effective teamwork skills in investigating and evaluating issues in health sciences.
DMHS100 Human Structure and Function	✓					✓	✓	
DMHS112 Introduction to Anatomy and Physiology II	✓					✓	✓	
DMHS150 Fundamental Concepts in Nutrition	✓					✓	✓	✓
DMHS151 Healthy Ageing	✓					✓	✓	✓
DMHS160 Scientific Literacy	✓					✓	✓	✓
DMHS200 Living in a Molecular World				✓		✓	✓	✓
DSCI106 Foundation Chemistry: Properties of Matter				✓		✓	✓	
DSCI107 Chemistry 1A: Introductory Physical and General Chemistry				✓		✓	✓	
DSCI110 Foundation Chemistry: Reactions and Structures				✓		✓	✓	



Subject/Course Learning Outcomes	1. Demonstrate language and literacy skills in order to read, write, present and listen effectively at a tertiary level.	2. Demonstrate the ability to locate, evaluate and use information appropriately at a tertiary level.	3. Demonstrate the ability to utilise computer technology in order to function effectively in a university environment.	4. Demonstrate numeracy skills in order to interpret, understand and analyse information at a tertiary level.	5. Apply a range of skills that demonstrate independent learning.	6. Identify and discuss fundamental knowledge related to a range of Medical and Health Sciences disciplines relevant to future university studies.	7. Professionally communicate health and science concepts in a range of health-related contexts.	8. Demonstrate effective teamwork skills in investigating and evaluating issues in health sciences.
DSCI111 Chemistry 1B: Structure and Reactivity of Molecules for Life				✓		✓	✓	✓
DSCI112 Molecules, Cells & Organisms	✓					✓	✓	✓
PREP030 Launch			✓		✓			
PREP031 Language for Learning	✓	✓	✓					
PREP032 Scientific Thinking	✓	✓	✓		✓			
PREP034 Mathematics for the Sciences				✓				

# 7 Progression Guidelines

## Course Progression Requirements

1. Students who have not met the Mathematics entry requirements to this course, and who complete bridging subject PREP033 Mathematics for the Humanities, must achieve a minimum final subject mark of 50% in PREP033 to enrol in PREP034 Mathematics for the Sciences.
2. To qualify for the award of the Diploma of Medical and Health Sciences, students must achieve a minimum result of 50% for each subject except for optional electives, where no minimum result applies.
3. Progression from Session 1 to subjects listed in Sessions 2 and 3 is conditional upon satisfying the following minimum final results in Session 1:
  - i. A Pass grade (minimum final result of 50%) or Satisfactory grade (in the case of PREP030 Launch) result in a minimum of three of the four Session 1 subjects, including PREP031 Language for Learning and PREP034 Mathematics for the Sciences; AND,
  - ii. A minimum average mark of 50% in PREP031, PREP032 and PREP034 (a minimum average result will be calculated based upon final subject results achieved in these subjects).

Note: Whilst progression from Session 1 to Session 2 may be permitted if a student satisfies the conditions outlined above, any subject for which a Pass or Satisfactory grade is not achieved will have to be repeated until a final subject mark of 50% (or grade of Satisfactory in the case of PREP030 Launch) is achieved to qualify for the award of the Diploma.

4. DSCI106 Foundation Chemistry: Properties of Matter is a pre-requisite for DSCI110 Foundation Chemistry: Reactions and Structures. Students are required to achieve a minimum result of 50% in DSCI106 to enrol in DSCI110.
5. DSCI107 Chemistry 1A Introductory Physical and General Chemistry is a pre-requisite for DSCI111 Chemistry 1B Structure and Reactivity of Molecules for Life. Students are required to achieve a minimum result of 50% in DSCI107 to enrol in DSCI111.
6. DMHS100 Human Structure and Function and DMHS150 Fundamental Concepts in Food and Nutrition are pre-requisites for DMHS151 Healthy Ageing. Students cannot enrol in DMHS151 unless they pass DMHS100 and DMHS150 with a minimum result of 50%. A waiver is available for students who are progressing into the second session of their Diploma in the Spring session where subject sequencing means that DMHS151 is studied before DMHS100 and DMHS150.
7. The Diploma is designed as a pathway into the second year of the following UOW degrees:
  - Bachelor of Medical and Health Sciences

- Bachelor of Nutrition Science
  - Bachelor of Exercise Science.
8. Students who complete all subjects in the Diploma, with a minimum result of 50% for each, will be eligible for admission to the second year of an eligible degree with 48 credit points for subjects in the compulsory core components of the degree.
  9. No UOW credit transfer is available for the following subjects: DPEN001 Principles of Physics for Engineers; DSCI103 Chemistry; PREP030 Launch; PREP031 Language for Learning; PREP032 Scientific Thinking, and; PREP034 Mathematics for the Sciences.
  10. Students may exit the Diploma course early and enter the relevant degree with 36 or 42 points of UOW credit transfer ('Early Exit - Incomplete Award'), if they have achieved the following conditions:
    - a) Students must have successfully completed at least 6 credit-bearing (all subjects except those listed at 9, above) subjects in the Diploma; and,
    - b) Students must be on Active Status to exit the Diploma. Students who are not on Active status must successfully complete the Diploma in full to progress to UOW.

Note: Where a student has opted for Early Exit - Incomplete Award, they will not be eligible for the Diploma award until they successfully complete the outstanding equivalent subjects in their UOW degree. Once a student has completed the equivalent subjects at UOW, the student can submit an [application for credit transfer](#) directly to UOW College for the Diploma qualification to be awarded.

## 8 Entry Requirements

Entry requirements for this course can be viewed online at:

<https://coursefinder.uow.edu.au/information/index.html?course=diploma-medical-health-uow-college>

## 9 Assessment

Students are required to complete a number and variety of assessment tasks related to their streams of study.

Each subject has a subject outline that is issued to students. Subject outlines contain a broad overview of subject objectives, an assessment schedule, a list of learning resources and a weekly topic outline. Subject outlines also contain an explanation of assessment components.

All assessment tasks with a weighting of 10% or greater contain clear marking criteria and an answer/marking guide.

All aspects of assessment are governed by the Assessment Policy which can be viewed in detail at: <http://www.uowcollege.edu.au/policies>.

## 10 Quality Assurance

The College applies formal quality assurance processes to its design of courses and assessments. These processes include:

- Standardisation of course content and delivery in accordance with Subject Outlines;
- Mandatory inclusion of clear and appropriate marking criteria in assessment tasks;
- Moderation of marking of student assessment tasks to ensure that the assessment criteria have been applied consistently, and to address differences in judgement between individual markers;
- A regular schedule of audits on student assessment tasks using randomly-selected samples of student work; and
- The use of feedback from students and teachers to inform continuous improvement of curriculum, delivery, policies and procedures.

Details of the College's approach to quality assurance can be viewed at the following link: <https://www.uowcollege.edu.au/about/policies-procedures/index.html>.

# 11 Subject Descriptions

## **DMHS100 Human Structure and Function**

This subject explores basic concepts of both structure (anatomy) and function (physiology) of the human body. The subject covers basic principles of anatomy and physiology in the areas of skeletal, joint, muscular, nervous, cardiovascular and respiratory systems. Teaching and learning will take place in lectures, laboratory (both actual and virtual) and tutorial settings using state of the art resources and online support.

## **DMHS112 Introduction to Anatomy and Physiology II**

This subject provides a fundamental scientific basis for students undertaking study areas such as medical and health science, medicine, physical education, exercise science and rehabilitation, and radiation physics. In this subject, you will be exposed to a broad overview of the anatomy and physiology of the human body from both a “systemic” and “regional” approach. That is, the human body will be divided into its basic systems (e.g. sensory and gastrointestinal) and each system will then be studied as an integrated whole alongside other systems (regional). DMHS112 will introduce and extend knowledge of cell structure and function, the autonomic nervous system and special senses, the urinary, reproductive and gastrointestinal systems, lymphatics, endocrine function, metabolism and the immune system. The lecture series and online practical activities will provide you with a basic understanding of how each system functions from an anatomical and physiological perspective. It is important to understand that no single system functions in isolation. The lecture and practical activities compliment integrated learning of key systems in the human body from a functional and structural perspective.

## **DMHS150 Fundamental Concepts in Nutrition**

This subject incorporates an overview of fundamental concepts in food and nutrition, as they relate to human health. This subject introduces students to the role of nutrition for health, including key components which may constitute a healthy diet, as well as methods to evaluate dietary intakes. Students will discuss the role of factors which may influence intake including interaction of biological, lifestyle and sociocultural aspects of human behaviour; changes in the nature of the food system; role of government and professional groups; and consumer interest.

## **DMHS151 Healthy Ageing**

This subject examines fundamental principles of human movement, considers nutritional demands and exercise responses to encourage a healthy lifestyle and highlights common issues and chronic conditions that can compromise health throughout the lifespan.

## **DMHS160 Scientific Literacy**

Scientific Literacy will introduce students to concepts and skills that are required to successfully undertake science-related undergraduate studies. The development of scientific literacy in students will also provide a foundation that will allow students to make use of scientific knowledge in real-world situations. Students in this subject will develop skills in: - Basic statistical analyses - Data presentation and interpretation - Oral and written communication especially in the context of scientific information - Searching scientific databases and retrieving various types of information from a variety of scientific sources - Evaluating the reliability of a source - Critical analysis of primary literature - Collaborative work - Peer assessment Students will also develop a general understanding of research design and how it impacts scientific conclusions.

## **DMHS200 Living in a Molecular World**

This subject is delivered primarily via web-based content, and through participation of students in group assessment and laboratory activities. The purpose of the subject is to provide students with or without a background in science, with the opportunity to learn about the chemicals present in everyday products and engage with contemporary scientific and environmental issues. All laboratory work will be undertaken in state-of-the-art laboratories in the new Sciences Teaching Facility. Students will be supported in their learning activities by a comprehensive eLearning (Moodle) site. This will enable students to learn about how chemical compounds found in and around the home work, as well as about their impacts upon the environment and society. Students who complete this subject will be better prepared to engage with contemporary scientific issues, such as the spread of multi-drug resistant bacteria, and use of performance enhancing supplements by athletes.

## **DSCI106 Foundation Chemistry: Properties of Matter**

The subject provides an introduction to core chemistry knowledge and skills as required for studies of biology and applied sciences. The subject incorporates explicit development of use of chemistry language, symbols and other representations, and the quantitative (numeracy, mathematical) skills required. The concepts include matter, introduction to atoms, ions and molecules, chemical nomenclature and quantities in chemistry; molecular scale concepts, electrons and the chemical bond, molecular shape, intermolecular forces; matter macroscale, the nature and properties of materials resulting from their molecular level character, with specific biological / polymeric / new materials based examples. Concepts about changing matter follow, considering the energetics and rate of chemical change. The topics are presented in contemporary contexts exploring chemical phenomena and specifically designed for students without senior high school chemistry.

## **DSCI107 Chemistry 1A: Introductory Physical and General Chemistry**

The subject provides core chemical concepts reinforcing and building on senior chemistry, and providing the basis of further studies in Chemistry. Concepts include

the fundamentals of quantity, mole and stoichiometric calculations, the properties and behaviour of matter on the molecular scale based on electron configuration, periodicity, chemical bonding and molecular shape. The subject continues with concepts concerning matter on the macroscale: gases, liquids, solids and solutions with properties determined by the molecular scale. Principles of thermodynamics, equilibrium and kinetics are used to describe, interpret and understand chemical and physical change. The topics presented in contemporary contexts exploring chemical phenomena relevant to a suite of applied disciplines as well as chemistry.

### **DSCI110 Foundation Chemistry: Reactions and Structures**

The subject follows on from essential chemical principles studied in DSCI106 and provides a suite of compound groups and reactions types across inorganic and organic chemistry with application in contemporary contexts suited to the study of Biology and the applied sciences. The subject begins by applying the equilibrium concept in the context of dissolution / precipitation, acid base and redox reactions. The chemistry of transition metal complexes, especially as applied in biochemical and catalytic systems, is studied. The chemistry of non-metals, P, N, and S highlighting biological environmental and industrial contexts is studied. Organic chemistry is introduced via hydrocarbon structures and then functional groups and classes of reactions pertinent to biological systems are studied. The application of structure concepts and reaction types is used to understand the properties of natural and synthetic polymers. The topics are presented in contemporary contexts exploring structures and reactions and specifically designed for students without senior high school chemistry.

### **DSCI111 Chemistry 1B: Structure and Reactivity of Molecules for Life**

The subject follows on from DSCI107, using concepts and principles concerning the structure of matter and the nature of chemical change, applied first in aqueous reactions of acid base, and redox systems. A suite of inorganic compounds and reactions types including periodicity is then introduced covering transition metal complexes and inorganic non-metals, of S, P, N relevant to biological and environmental systems. Organic chemistry is specifically introduced with a detailed look at structure and isomerism leading to a treatment of organic functional groups and reactions based on mechanistic descriptions of the reaction systems. The mechanistic approach considers reactivity and stability of chemical species and uses thermodynamic, kinetic and equilibrium considerations to describe and analyse reactions. The application of structure concepts and reaction types is used to understand the properties of natural and synthetic polymers.

## **DSCI112 Molecules, Cells and Organisms**

This subject is the study of molecules, cell and organisms fundamental to biology. This subject provides an introduction to the topic areas of cell biology, biochemistry, biotechnology, genetics, microbiology and immunology. During this subject you will look closely at the links between structure and function in cells and important biological molecules whilst investigating cellular division and mechanisms to control the cell cycle and prevent cancer. You will hear about techniques in genetic engineering and break throughs in biotechnology. You will learn about different microorganisms and their role in human, animal and/or plant health and explore the physiology of the immune system. Through engagement in group research projects you will develop skills in effective research and communication, teamwork, self-reflection and peer assessment whilst developing your digital literacy skills in presenting your research through PowerPoint (or similar tools) and generation of an electronic Portfolio.

## **PREP030 Launch**

This subject explores the common expectations and experiences of university study in order to assist students to transition effectively to a higher education learning environment. Students will be introduced to the technological platforms and skills required to effectively complete their studies, the importance of academic integrity, available support services and resources, and strategies to develop capabilities of independent learning. Students will be engaged in presentations and activities related to these aspects of academic life to cultivate the development of their student identity in the context of a learning community.

## **PREP031 Language for Learning**

This subject provides students with opportunities to develop their knowledge of, and competence and confidence in the use of text-based language in preparation for future studies. Students will be introduced to a variety text types and genres commonly used in tertiary study, with a focus on engaging with, and critically analysing, sources of information in terms of purpose for writing, the style employed and writing techniques evident in the text. The focus is on developing language skills and improving students' capability to both evaluate the content of a variety of texts, and to employ that knowledge in their own written and spoken tasks.



## **PREP032 Scientific Thinking**

This subject provides students with a functional understanding of the basic tenets of science, the underlying cognitive skills that allow us to solve complex problems, and strategies to investigate and interpret the world around us. Students will be challenged with problem-solving activities relevant to the sciences to develop a range of key cognitive capacities, including critical, logical and creative thinking, and an understanding of concepts such as objectivity, variables, theory, and Occam's razor. The focus is on developing skills required to design, conduct, analyse and present the findings of primary research related to a United Nations Sustainable Development Goal (UN SDG). Students will also develop their global citizenship through evaluating the significance of their selected SDG, and its relevance to their future study and career pathways.

## **PREP034 Mathematics for the Sciences**

This subject provides a minimal assumed knowledge of mathematics for students entering a selection of Science and Technology degrees at an undergraduate level. The focus is on developing mathematics skills and improving competencies and confidence in the language and techniques of mathematics. The general topic areas covered in this subject are arithmetic, algebra, equations, functions, trigonometry, limits and calculus. Where possible science and technology applications will be used to demonstrate the relevance of these skills.

## **Bridging Subject**

### **PREP033 Mathematics for the Humanities**

This subject provides an introductory study of mathematics and statistics as a foundation for further study in disciplines including Business and the Humanities. Mathematics for the Humanities focusses on reinforcing the fundamental concepts of basic arithmetic, basic algebra, linear equations, probability and statistics. The subject familiarises students with language, terminology and analytical problem-solving techniques used in mathematics and statistics.

## **Optional Electives**

### **DPEN001 Principles of Physics for Engineers**

Principles of Physics for Engineers is designed to provide an understanding of some of the physical laws governing the operation of the universe. This subject will prepare students for the study of science and engineering at University. It will also help the student evaluate whether they are able to continue to study physics at university as they are required to do for several science and all engineering subjects.

### **DSCI103 Chemistry**

Chemistry introduces students to fundamental principles of chemistry and provides practical experience with basic chemical apparatus and techniques. This subject is

directed towards students with little or no background in chemistry, and covers aspects of introductory physical and inorganic chemistry.

# 12 Version Control Table

Version Control	Date Effective	Approved By	Amendment
1	09/09/2021	UOWCA Academic Board	Initial release - 2022 delivery