

## Program Information

The Early Transition Program – Engineering Stream provides foundation knowledge in mathematics, physics and academic skills, enabling students to undertake a range of UniSA Bachelor degrees in disciplines such as Aviation, Construction and Science.

All Engineering students are required to complete Mathematics for Study (MMS001) and Language Development Module 1 (LDM100) in their first trimester (unless exempted). Although MMS001 and LDM100 do not count towards the study load or GPA, a non-graded pass is required for the program of study. **A non-graded pass in LDM100 is required for graduation.**

Stage 1		Study Load	Units
ESS001	Essential Study Skills	25%	4.5
ITN002	Information and New Media Technologies	25%	4.5
ADM001	Advanced Mathematics 1 <small>(Pre-requisite for ADM002)</small>	25%	4.5
CPP002	Communication, People, Place and Culture	25%	4.5
ARC002	Academic Research and Critical Enquiry	25%	4.5
ADM002	Advanced Mathematics 2	25%	4.5
PHYS01	Physics 1	25%	4.5
PHYS02	Physics 2	25%	4.5

### ETP (Engineering) Pathway Programs

- Bachelor of Aviation (Management)
- Bachelor of Aviation (Flight)
- Bachelor of Construction Management (Honours)
- Bachelor of Environmental Science
- Bachelor of Science
- Bachelor of Construction Management

# Program Outline

## Tertiary Preparation

### Language Development Module 1

This module is designed to provide students with opportunities to review, develop and practice the English language systems and skills required to successfully participate in an undergraduate degree program. Successful completion of this module is required for graduation.

### Mathematics for Study

This unit provides a foundation in mathematics to provide students with skills to support their future university studies. Students are supported to develop core concepts and skills, and to apply these to solve problems.

## Stage 1

### Academic Research and Critical Enquiry

This module will introduce you to the basic principles of critical thinking. It also assists you in developing skills needed for the tertiary study environment, including academic reading, listening, and note-taking, as well as written formats and referencing.

### Information and New Media Technologies

You will be introduced to the use of the Internet, social media and associated technologies in society and business. Through the module, you will utilise Microsoft Office along with online tools for effective communication and discuss the ethical and security issues related to the use of Information Communication Technologies.

### Communication, People, Place and Culture

In this unit you are introduced to the basic principles of communication and its role in society and culture. You will investigate the effects of different forms of verbal and non-verbal communication and describe cultural influences on the communication process.

### Essential Study Skills

In this module students will be provided with an understanding and application of essential study skills, covering independent learning skills and styles, active listening, presentation, and group work skills.

### Advanced Mathematics 1

In this module you will gain a good understanding of calculus required for further studies. You will use algebra to solve mathematical problems involving functions and trigonometry, and gain an introduction to differential calculus.

### Advanced Mathematics 2

This module further develops your capabilities in calculus to prepare you for the level of mathematics required in Engineering. You will build on your existing algebra knowledge to solve mathematical problems including trigonometric, exponential and logarithmic equations.

*Pre-requisite: Advanced Mathematics 1*

### Physics 1

In this module you are introduced to the basic concepts of Physics, with a particular focus on motion and heat. You will learn appropriate equations and units for demonstrating different concepts and conduct experiments to analyse and test theories.

### Physics 2

This module further develops your skills in using the basic concepts of Physics to the level required for the study of engineering focusing on waves, optics, electricity and atomic physics. You will continue to develop your analytical skills, using appropriate diagrams as a form of communicating and discussing discrepancies in your results.