

# Program Information

The Diploma of Information Technology (IT) provides students with an understanding of fundamental concepts and necessary skills in programming, networking and databases, enabling students to articulate into the range of IT degrees at Adelaide University. Listed below are the modules comprising the Diploma of Information Technology. You may have been granted exemption from some modules depending on your academic results. These will be listed in your offer letter.

All IT students are required to complete Language Development Module 1 (LDM100) in their first trimester (unless exempted). Students exempted from Programming (PRG001) are required to complete the tertiary preparation module Program Design for IT (PDI001). Although PDI001 and LDM100 do not count towards 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
PRG001	Programming (Pre-requisite for COMP1039)	25%	4.5
CPP002	Communication, People, Place and Culture	25%	4.5
ARC002	Academic Research and Critical Enquiry	25%	4.5
MST001	Mathematics and Statistics	25%	4.5
DES001	Design	25%	4.5
Elective	Choose from: Media and Society, Early Career Development, Business Fundamentals, Human Biology, Physics 1	25%	4.5

Stage 2		Study Load	Units
COMP1039	Problem Solving and Programming (Pre-requisite for COMP1046/INFS1025)	25%	4.5
INFT1030	Design Thinking Studio*	25%	4.5
INFT1016	Information Technology Fundamentals (Pre-requisite for INFS1025/INFS1026/INFT1031)	25%	4.5
INFT1012	Network Fundamentals	25%	4.5
COMP1046	Object Oriented Programming	25%	4.5
INFS1025	Data Driven Web Technologies	25%	4.5
INFS1026	System Requirements and User Experience (Co-requisite with INFT1031)	25%	4.5
INFT1031	System Requirements Studio (Co-requisite with INFS1026)	25%	4.5

**\*Non graded pass**

## Diploma of IT Pathway Programs

Please refer to the following website for information on Pathways:

<https://saibt.sa.edu.au/adelaide-university/diploma-programs/diploma-of-information-technology/>

All classes (unless otherwise specified) are held at City East Campus (CE)

DIPLOMA OF IT

# 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.

### Program Design for IT

This self-guided module will help you to develop computational thinking skills while learning the fundamentals of program design and structured programming. The skills and tools you learn here will be transferrable to any programming language.

## Stage 1

### 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.

### 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.

### 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.

### Design

This module provides you with an introduction to the basic principles of design and their application to various publications. You will use the design process and different software applications to publish material for both print and electronic media and analyse the messages communicated through different design elements.

### Programming

This module introduces you to the basic principles of programming and their use in writing simple programs. You will use the systems development life cycle to write programs combining different data types and programming structures and learn techniques to test successful outcomes.

### Mathematics & Statistics

This module introduces you to the mathematical concepts required for further studies, particularly in statistics. You will learn to use fundamental arithmetic and algebra to solve problems, and apply statistical processes and concepts including sampling techniques and different forms of presentation.

## Stage 1 Elective Modules

### Select one elective module

#### Media & Society

This module analyses the use of media in society and its role in cultural life. You will investigate the different factors, which shape cultures today and discuss how the media affects popular culture, interpretations of the world and contributes to cultural identity.

#### Early Career Development

The module provides students with a professional guide to career planning to ensure success in their future working lives. The module includes understanding modern workplaces and practices, the responsibilities of different agents in the work environment, and the acquisition of knowledge and skills related to employment including interviews and applying for jobs. This course aims to bridge understandings and to prepare students for the professional and wider world.

#### Business Fundamentals

This unit provides you with an understanding and application of foundation concepts in the business disciplines of management and leadership, finance, marketing and human resources. You will discuss current trends, opportunities, and issues that impact on contemporary business and learn to use appropriate communication for the business environment.

#### Human Biology

This module will introduce you to the basic concepts of human biology as a foundation for further study in this area. You will develop an understanding of the main body systems and the associated biology, and an awareness and appreciation of the human body in a personal, social, and medical context.

#### 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.

## Stage 2

### Problem Solving and Programming

This module focuses on modelling, and the utilisation of tools in the problem-solving process. You will also be introduced to programming and will gain the necessary skills to design, implement, test and debug a program.

*Pre-requisite: Programming*

### Design Thinking Studio

This module invites you to develop your professionalism. You will learn to communicate effectively with each other, tutors and real-world clients. Design Thinking is an approach to making innovative technologies that others have a need for.

### Information Technology Fundamentals

This module will assist you to develop a solid understanding of Information Technology concepts that will enable you to make decisions in relation to IT infrastructure issues.

### Network Fundamentals

The course will provide you with the fundamental knowledge and skills for developing small to medium sized enterprise networks.

### Object Oriented Programming

This course uses a combination of teaching techniques: (1) workshops where you will work in groups using what is called team-based learning, (2) practicals to help develop your programming skills, and (3) tutorials to introduce you to principles and concepts.

*Pre-requisite: Problem Solving and Programming*

### Data Driven Web Technologies

In this module you will learn to design and construct a relational database for a small organisation. This course aims to develop your problem-solving skills and introduce you to Relational Databases, SQL Programming, and basic web implementation.

*Pre-requisite: Problem Solving and Programming and Information Technology Fundamentals*

### System Requirements and User Experience

The outcomes of this course will help you address a problem statement by developing a set of requirements and user experience designs through end-user and stakeholder engagement.

*Pre-requisite: Information Technology Fundamentals and co-requisite with System Requirements Studio*

### System Requirements Studio

Upon completion of this course you will have achieved graduate qualities that will be highly desirable to employers such as being an effective problem solver, being able to work autonomously and collaboratively as well as communicating effectively in professional practice.

*Pre-requisite: Information Technology Fundamentals and co-requisite with System Requirements and User Experience*