

## Program Information

The Diploma of Computing and IT Studies (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 Diploma of Computing and IT Studies (IT) students are required to complete Language Development Module 1 (LDM100) in their first trimester (unless exempted). Although LDM100 does not count towards the study load or GPA, a non-graded pass is required for graduation.

Stage 1 - 8 Modules		Study Load	Units
LCOM01	Language & Communication (A)	25%	4.5
LCOM02	Language & Communication (B)	25%	4.5
MTHF02	Fundamentals of Mathematics (B)	25%	4.5
ITS001	Information Technology Studies (A) <i>(Pre-requisite for COMP1039)</i>	25%	4.5
ITS002	Information Technology Studies (B) <i>(Pre-requisite for COMP1039)</i>	25%	4.5
DESN01	Design (A)	25%	4.5
DESN02	Design (B)	25%	4.5
PSY01	Psychology (A)	25%	4.5

Stage 2 - 8 Modules		Study Load	Units
COMP1039	Problem Solving and Programming <i>(Pre-requisite for COMP1046/ INFS1025)</i>	25%	4.5
COMP1046	Object Oriented Programming	25%	4.5
INFS1025	Data Driven Web Technologies	25%	4.5
INFS1026	System Requirements and User Experience <i>(Co-requisite with INFT1031)</i>	25%	4.5
INFT1012	Network Fundamentals	25%	4.5
INFT1016	Information Technology Fundamentals <i>(Pre-requisite for INFS1025/ INFS1026/ INFT1031)</i>	25%	4.5
INFT1030	Design Thinking Studio	25%	4.5
INFT1031	System Requirements Studio <i>(Co-requisite with INFT1026)</i>	25%	4.5

### Diploma of Computing and IT Studies Pathways

Please refer to the following website for information on Pathways:

<https://www.eynesbury.edu.au/adelaide-university/diploma-programs/computing-it/>

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

# 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.

#### Stage 1

##### Information Technology Studies (A)

The study of ITS provides students with opportunities to develop an understanding of computer technology and networking, including how the Internet works. Students acquire knowledge and skills related to information technology studies and learn how to program basic webpages using HTML and CSS.

Students acquire knowledge and skills related to programming using Python to draw graphics with the Python turtle module.

##### Information Technology Studies (B)

This module provides students with opportunities to develop an understanding of Artificial Intelligence, and its impact on humanity and the way we work. Students acquire knowledge and skills related to databases and the use of MS Access. Students also learn skills in terms of using Microsoft Excel and how to use formulae for computing and analysing data in Excel.

##### Fundamentals of Mathematics (B)

This module prepares students for undergraduate modules in Business.. It provides students with a good foundation of knowledge and understanding of the relevant Mathematics topics for future modules. It also provides opportunities to enhance problem-solving skills.

##### Language & Communication (A & B)

The purpose of this module is to help English as an Additional Language (EAL) students communicate effectively in the cultural and academic context of an Australian University. The module aims to improve students' written and spoken command of English to a level appropriate for entry into first year undergraduate studies.

Emphasis will be placed on reading and interpreting academic texts as well as learning to write formally and objectively with appropriate and consistent referencing. Students will develop their listening skills and learn to convey information, explain their point of view clearly, and substantiate their argument.

These modules will provide students with the necessary language, research and critical enquiry skills which will be valuable in their progression through university and tertiary studies.

##### Psychology (A)

The study of psychology helps students to understand their own behaviour, and that of others. While psychological knowledge is often applied to the assessment and treatment of mental health problems, it is also used to understand and solve problems in many different contexts. As current findings are based on empirical evidence, psychology is both a basic and an applied science. To ensure success in this subject, it is important that you are well prepared for class by ensuring that all class and homework tasks are completed, and if you experience difficulty at any stage during the module, please seek additional assistance immediately.

##### Design (A & B)

The study of Design provides students with opportunities to develop an understanding of key design concepts and principles, and their application in environmental, graphic and/or product design. Students acquire knowledge related to the design process and factors affecting design outcomes in both historical and contemporary settings. This module is recommended for all students who intend to study a design pathway at university or indeed any student wishing to develop an understanding of design theory and practice.

# Program Outline

## Stage 2 (8 Modules)

### 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 & Information Technology Fundamentals*

### 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: Information Technology Studies (A)*

### Object Oriented Programming

This module 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*

### Network Fundamentals

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

### System Requirements Studio

Upon completion of this module 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*
- *Co-requisite with System Requirements and User Experience*

### System Requirements and User Experience

The outcomes of this module 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*
- *co-requisite with System Requirements Studio*

### 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.