

# DIPLOMA OF INFORMATION TECHNOLOGY

## Program Information

The Diploma of Information Technology 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 the University of South Australia. Listed below are the courses comprising the Diploma of Information Technology.

You may have been granted exemption from some courses depending on your academic results. These will be listed in your offer letter.

Stage 1			Study Load	Units
ESS001	Essential Study Skills		25%	4.5
ITN002	Information and New Media Technologies		25%	4.5
PRG001	Programming	(Prerequisite 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 & Society, Business Studies 1, Science & Society, Human Biology		25%	4.5
Stage 2				Units
COMP1039	Problem Solving and Programming	(Prerequisite for COMP1040 and INFS1021)	25%	4.5
INFS1020	Design Thinking & Digital Innovation		25%	4.5
INFT1016	Information Technology Fundamentals	(Prerequisite for INFT1020 and INFT1021)	25%	4.5
INFT1012	Network Fundamentals		25%	4.5
COMP1040	Programming Fundamentals		25%	4.5
INFT1020	Database Fundamentals		25%	4.5
INFS1021	Systems Analysis		25%	4.5
INFT1021	IT Project Management		25%	4.5

# Program Outline

## Stage 1 Core Courses

### Essential Study Skills

In this course 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 course, 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.

### Programming

This course 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.

### 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 course 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.

### Maths & Statistics

This course 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.

### Design

This course 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.

## Stage 1 Elective Courses

Select one elective course from the options below.

### Media & Society

This course 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.

### Business Studies 1

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.

### Science & Society

This unit will provide an introduction to laws, theories and principles of Biology, Chemistry, Physics and Earth, and Environmental Science. In this course, you will investigate different career options within the field of science, develop safe work practices in a laboratory environment and use the process of inquiry to plan, implement and present a research project on an area of interest.

### Human Biology

This course 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.

## Stage 2 Core Courses

### Problem Solving and Programming

This course introduces you to problem solving and 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 & Digital Innovation

This course focuses on defining a problem with cultural and ethical considerations and evaluating alternative solutions. You will learn to communicate effectively with stakeholders from the initial definition of the problem through to eliciting feedback on proposed solutions.

### Information Technology Fundamentals

This course 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

You will learn to identify and describe alternative network and telecommunications solutions to satisfy user needs and technical requirements; analyse short and long term trade-offs associated with alternative solutions; and make recommendations of appropriate networking solutions.

### Programming Fundamentals

This course will build upon the concepts taught in 'Program Solving and Programming' and insight into more abstract concepts and programming techniques. You will utilise integrated development environments for programming, documentation tools and application programming interfaces.

*Pre-requisite:*

*Problem Solving and Programming*

### Database Fundamentals

In this course you will learn to design and construct a relational database for a small organisation. This course will introduce you to database management systems, the Relational Model and SQL.

*Pre-requisite: Information Technology Fundamentals*

### Systems Analysis

This course develops communication skills within a collaborative work environment. You will learn techniques for understanding business and analysing and specifying requirements for business systems.

*Pre-requisite:*

*Problem Solving and Programming*

### IT Project Management

This course develops skills to in software project management including defining project scope, analysing risks and developing appropriate plans. You will analyse the systems lifecycle and how it relates to project management.

*Pre-requisite:*

*Information Technology Fundamentals*