Diploma of Information Technology

Course Outline (T3, 2021)

Campus	Melbourne Burwood Campus / Jakarta Campus, Indonesia
Intake	March, June, October
CRICOS	097891B
Course Duration	The duration of the Diploma course is three trimesters (12 months). There is an option, however, to fast track the course and complete it in two trimesters (8 months).
Teaching Methods	Instruction for all units is classroom based. Generally, four hours of class contact per week are allocated to each unit. Some units have additional laboratory hours/practical classes.
Assessment	Assessment for all units is ongoing and continuous consisting of tests, assignments and reports. Most units have a final two-hour examination.
Course Structure	Eight units must be completed and passed to be awarded the Diploma (8 credit points).
Units	Complete and pass eight units (8 credit points): SIT102 Introduction to Programming SIT103 Data and Information Management SIT105 Thinking Technology and Design SIT111 Algorithms and Computing Systems SIT112 Data Science Concepts SIT113 Cloud Computing and Virtualisation SIT120 Introduction to Responsive Web Apps SIT123 Data Capture Technologies SIT124 Exploring I.T. SIT151 Game Fundamentals SIT162 Introduction to Creative Technologies SIT182 Real World Practices for Cyber Security SIT190 Introductory Mathematical Methods # SIT192 Discrete Mathematics # MMM132 Management^ # SIT190 Introductory Mathematical Methods is a foundation mathematics unit designed to prepare students for tertiary level mathematics. Students who have not completed VCE Mathematical Methods 3 and 4 should complete SIT190 (in place of an elective) prior to enrolling into SIT192. SIT190 is a required unit for the Cyber Security and AI pathways. ^Available in the Bachelor of Information Technology and Bachelor Cyber Security pathways only. All Diploma of Information Technology students must complete **STP050** Academic Integrity, which is a free, zero credit point compulsory online unit and does not count toward your total units.

Transfer to Deakin University	The following transfer criteria apply: • You must complete and pass eight Deakin College diploma units. • You must achieve the required Weighted Average Mark (WAM) for your Deakin College diploma taking into account all units attempted at Deakin College (required WAMs are included under each Deakin University degree on the following pages). * Transfer to some degrees requires specific Deakin College units to be completed in order to receive the appropriate credits (see Deakin University degrees below for core units).
Study Load	• If you are a domestic student, you can enrol in 1 to 4 units, also known as modules (25%-100% study load) each trimester. If you are seeking Centrelink assistance, you must enrol in 3 or 4 units. • If you are an international student, we recommend you enrol in 3 or 4 units, also known as modules (75%-100% study load) per trimester in order to meet progression requirements to Deakin University, as outlined in your offer letter. If you cannot take full-time study load, you must contact your Academic Coordinator prior to your scheduled enrolment date for a discussion. You will not be able to enrol through the Student Portal if you try to enrol in 1 or 2 units and will need to seek assistance from your Academic Coordinator.

Diploma of Information Technology
Credit Prerequisite Structure.

Students earn 1 credit point for each completed unit. For each pathway, units will become available for enrolment based on a credit prerequisite system. The system is denoted using the following icons:

0 - Indicates a unit has a credit prerequisite of 0. This means that the unit will be available for enrolment at the start of the Diploma.

1 - Indicates a unit has a credit prerequisite of 1. This means that students must complete at least 1 other unit before this unit is available for enrolment.

2 - Indicates a unit has a credit prerequisite of 2. This means that students must complete at least 2 other units before this unit is available for enrolment.

3 - Indicates a unit has a credit prerequisite of 3. This means that students must complete at least 3 other units before this unit is available for enrolment.

4 - Indicates a unit has a credit prerequisite of 4. This means that students must complete at least 4 other units before this unit is available for enrolment.

The credit prerequisite required for each unit is dependent on the pathway chosen, so please refer to your specific pathway in this guide for the specific credit prerequisites.

If students have reason to take a unit before they have met the credit prerequisite required, they can submit an *Enrolment Variation Form* for consideration.

When I transfer to Deakin University I want to study
S326 Bachelor of Information Technology (B WP T1 T2)

International Students WAM: **B** 50 **WP** 50
Australian Students WAM: **B** 50 **WP** 50 **C** 50
Credits for Transfer: 8

Majors offered at Deakin University include:
● Application Development ● Cloud Computing ● Creative Technologies ● Game Development ● Cyber Security ● Virtual and Augmented Reality

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Normal Track (Completing course in 12 months/ 3 trimesters)				
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT105** Thinking Technology and Design	**CORE** 0 **SIT124** Exploring I.T.	0 **STP050* Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 0 **SIT103** Data and Information Management	**CORE** 2 **SIT182** Real World Practices for Cyber Security	**CORE** 2 **SIT112** Data Science Concepts	
3rd Trimester	**CORE** 4 **SIT120** Introduction to Responsive Web Apps	**1 ELECTIVE - Choose 1 from below** 0 **SIT113, SIT123, SIT190** 1 **MMM132** 2 **SIT111** 3 **SIT162** 4 **SIT151, SIT192**		

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Fast Track (Completing In 8 months/2 trimesters)					
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT103** Data and Information Management	**CORE** 0 **SIT105** Thinking Technology and Design	**CORE** 0 **SIT124** Exploring I.T.	0 **STP050 Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 1 **SIT182** Real World Practices for Cyber Security	**CORE** 2 **SIT112** Data Science Concepts	**CORE** 4 **SIT120** Introduction to Responsive Web Apps	**1 ELECTIVE - Choose 1 from below** 0 **SIT113, SIT123, SIT190** 1 **MMM132** 2 **SIT111** 3 **SIT162** 4 **SIT151, SIT192**	

Electives

Students must complete a Bachelor of IT majors or minor sequence. Students wishing to major or minor in the following areas must include the following units in their electives:

Major Sequences*:

- Creative Technologies – SIT162 Introduction to Creative Technologies
- Cyber Security – SIT190# Introduction to Mathematical Methods, SIT192 Discrete Mathematic
- Game Design and Development – SIT151 Game Fundamentals
- Networking and Cloud Computing – SIT113 Cloud Computing and Virtualisation

 # Students who have not completed VCE Mathematical Methods 3 and 4 should complete SIT190 (in place of an elective) prior to enrolling into SIT192

Minor Sequences*:

- Creative Technologies – SIT162 Introduction to Creative Technologies
- Cyber Security Network Operations – SIT192 Discrete Mathematics
- Game Design – SIT151 Game Fundamentals
- Embedded Systems – Data Capture Technologies
- Networking and Cloud Technologies – SIT113 Cloud Computing and Virtualisation
- Security Management – MMM132 Management

**Major and minor sequences listed are only those that include Diploma of Information Technology units. Please refer the Deakin University Bachelor of Information Technology course page for a full list of major and minor sequences.*

Bachelor of Information Technology pathway units became available based on their credit prerequisite.

Units with a 0 credit prerequisite.

- *SIT102, SIT103, SIT105, SIT113, SIT123, SIT124, SIT190, STP050*

Units with a 1 credit prerequisite.

- *MMM132, SIT182*

Units with a 2 credit prerequisite.

- *SIT111, SIT112*

Units with a 3 credit prerequisite.

- *SIT162*

Units with a 4 credit prerequisite.

- *SIT120, SIT151, SIT192*

When I transfer to Deakin University I want to study
S306 Bachelor of Computer Science (B T1 T2)

International Students WAM: **B** 50
Australian Students WAM: **B** 50
Credits for Transfer: 8

Students who have not completed VCE Mathematical Methods 3 and 4 should complete SIT190 (in place of an elective) prior to enrolling into SIT192

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Normal Track (Completing course in 12 months/ 3 trimesters)				
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT123** Data Capture Technologies	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT124, SIT190**	0 **STP050 Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 0 **SIT103** Data and Information Management	**CORE** 1 **SIT111** Algorithms and Computing Systems	**CORE** 3 **SIT112** Data Science Concepts	
3rd Trimester	**CORE** 4 **SIT192** Discrete Mathematics #	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT124, SIT190** 2 **SIT182** 3 **SIT162** 4 **SIT120, SIT151**		

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Fast Track (Completing In 8 months/2 trimesters)					
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT103** Data and Information Management	**CORE** 0 **SIT123** Data Capture Technologies	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT124, SIT190**	0 **STP050 Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 1 **SIT111** Algorithms and Computing Systems	**CORE** 3 **SIT112** Data Science Concepts	**CORE** 4 **SIT192** Discrete Mathematics #	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT124, SIT190** 2 **SIT182** 3 **SIT162** 4 **SIT120, SIT151**	

Electives can include any of the following, however we recommend the order as outlined in normal and fast track guide:

- SIT105 Thinking Technology and Design
- SIT113 Cloud Computing and Virtualisation
- SIT120 Introduction to Responsive Web Apps
- SIT124 Exploring I.T.
- SIT151 Game Fundamentals
- SIT162 Introduction to Creative Technologies
- SIT182 Real World Practices for Cyber Security
- SIT190 Introductory Mathematical Methods

Students who have not completed VCE Mathematical Methods 3 and 4 should complete SIT190 (in place of an elective) prior to enrolling into SIT192

Bachelor of Computer Science pathway units became available based on their credit prerequisite.

Units with a 0 credit prerequisite.

- *SIT102, SIT103, SIT105, SIT113, SIT123, SIT124, SIT190, STP050*

Units with a 1 credit prerequisite.

- *SIT111, MMM132*

Units with a 2 credit prerequisite.

- *SIT182*

Units with a 3 credit prerequisite.

- *SIT112, SIT162*

Units with a 4 credit prerequisite.

- *SIT120, SIT151, SIT192*

When I transfer to Deakin University I want to study
S334 Bachelor of Cyber Security (B WP T1 T2)

International Students WAM: **B** 50 **WP** 50
Australian Students WAM: **B** 50 **WP** 50
Credits for Transfer: 8

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Normal Track (Completing course in 12 months/ 3 trimesters)				
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT111** Algorithms and Computing Systems	**1 REQUIRED UNIT** 0 **SIT190#** Introductory Mathematical Methods	0 **STP050 Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 2 **SIT182** Real World Practices for Cyber Security	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124** 1 **MMM132, SIT103**	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124** 1 **MMM132, SIT103**	
3rd Trimester	**CORE** 4 **SIT192** Discrete Mathematics **#**	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124, SIT190** 1 **MMM132, SIT103** 3 **SIT162** 4 **SIT112, SIT120, SIT151**		

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Fast Track (Completing In 8 months/2 trimesters)					
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT111** Algorithms and Computing Systems	**1 REQUIRED UNIT** 0 **SIT190#** Introductory Mathematical Methods	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124**	0 **STP050 Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 2 **SIT182** Real World Practices for Cyber Security	**CORE** 4 **SIT192** Discrete Mathematics	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124** 1 **MMM132, SIT103** 3 **SIT162** 4 **SIT112, SIT120, SIT151**	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124** 1 **MMM132, SIT103** 3 **SIT162** 4 **SIT112, SIT120, SIT151**	

#SIT190 is a required unit as part of the Cyber Security pathway. However, students who have completed VCE Mathematical Methods 3 and 4, specialist maths (or equivalent) can replace SIT190 with an elective. Please speak to your Diploma Academic Coordinator for approval.

Students must complete a Bachelor of Cyber Security minor sequence. Students wishing to major or minor in the following areas must include the following units in their electives:

Minor Sequence Available*:

- Security management – MMM132 Management

**Minor sequences listed are only those that include available Diploma of Information Technology units. Please refer the Deakin University Bachelor of Cyber Security course page for a full list of minor sequences.*

Bachelor of Cyber Security pathway units became available based on their credit prerequisite.

Units with a 0 credit prerequisite.

- *SIT102, SIT105, SIT111, SIT113, SIT123, SIT124, SIT190, STP050*

Units with a 1 credit prerequisite.

- *MMM132, SIT103*

Units with a 2 credit prerequisite.

- *SIT182*

Units with a 3 credit prerequisite.

- *SIT162*

Units with a 4 credit prerequisite.

- *SIT112, SIT120, SIT151, SIT192*

Deakin University Campuses and Trimester codes

B Melbourne Burwood Campus **WP** Geelong Waurn Ponds Campus

T1 Trimester 1 entry **T2** Trimester 2 entry

CRICOS Codes: Bachelor of Information Technology 053993D, Bachelor of Computer Science 083695K, Bachelor of Cyber Security 091336M.

When I transfer to Deakin University I want to study
S306 Bachelor of Artificial Intelligence (B T1 T2)

International Students WAM: **B** 50
Australian Students WAM: **B** 50
Credits for Transfer: 8

Students who have not completed VCE Mathematical Methods 3 and 4 should complete SIT190 (in place of an elective) prior to enrolling into SIT192

Normal Track (for students <u>without</u> Year 12 Maths Methods or Specialist Maths or an equivalent)

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Normal Track (Completing course in 12 months/ 3 trimesters)#				
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT111** Algorithms and Computing Systems	**<u>1</u> REQUIRED UNIT** 0 **SIT190#** Introductory Mathematical Methods (Compulsory zero credit point online)	0 **STP050 Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 1 **SIT103** Data and Information Management	**CORE** 3 **SIT112** Data Science Concepts	**<u>1</u> ELECTIVE** **Choose <u>1</u> from below** 0 **SIT105, SIT113, SIT123, SIT124, SIT190** 2 **SIT182** 3 **SIT162**	
3rd Trimester	**CORE** 4 **SIT192** Discrete Mathematics #	**<u>1</u> ELECTIVE** **Choose <u>1</u> from below** 0 **SIT105, SIT113, SIT123, SIT124** 2 **SIT182** 3 **SIT162** 4 **SIT120, SIT151**	**<u>1</u> ELECTIVE** **Choose <u>1</u> from below** 0 **SIT105, SIT113, SIT123, SIT124** 2 **SIT182** 3 **SIT162** 4 **SIT120, SIT151**	

 # SIT190 is a required unit for any students who have not completed Year 12 Maths Methods or Specialist Maths or an equivalent. If you have met this requirement, please follow the normal track guide on the next page.

Normal Track (for students with Year 12 Maths Methods or Specialist Maths or an equivalent)

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Normal Track (Completing course in 12 months/ 3 trimesters)#				
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT111** Algorithms and Computing Systems	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124**	0 **STP050 Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 1 **SIT103** Data and Information Management	**CORE** 3 **SIT112** Data Science Concepts	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124** 2 **SIT182** 3 **SIT162**	
3rd Trimester	**CORE** 4 **SIT192** Discrete Mathematics #	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124** 2 **SIT182** 3 **SIT162** 4 **SIT120, SIT151**		

Fast Track (for students with Year 12 Maths Methods or Specialist Maths or an equivalent)

Please follow the recommended structure below. Units are available based on their credit prerequisite indicated.

Fast Track (Completing In 8 months/2 trimesters)#					
1st Trimester	**CORE** 0 **SIT102** Introduction to Programming	**CORE** 0 **SIT111** Algorithms and Computing Systems **CORE**	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124**	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124**	0 **STP050 Academic Integrity Unit** (Compulsory zero credit point online)
2nd Trimester	**CORE** 1 **SIT103** Data and Information Management	**CORE** 3 **SIT112** Data Science Concepts	**CORE** 4 **SIT192** Discrete Mathematics #	**1 ELECTIVE** **Choose 1 from below** 0 **SIT105, SIT113, SIT123, SIT124** 2 **SIT182** 3 **SIT162** 4 **SIT120, SIT151**	

 # SIT190 is a required unit for any students who have not completed Year 12 Maths Methods or Specialist Maths or an equivalent. Only student have completed Year 12 Maths Methods or Specialist Maths or an equivalent are eligible for the Fast Track.

Electives can include any of the following, however we recommend the order as outlined in normal and fast track guide:

- SIT105 Thinking Technology and Design
- SIT113 Cloud Computing and Virtualisation
- SIT120 Introduction to Responsive Web Apps
- SIT123 Data Capture Technologies
- SIT124 Exploring I.T.
- SIT151 Game Fundamentals
- SIT162 Introduction to Creative Technologies
- SIT182 Real World Practices for Cyber Security

Bachelor of Artificial Intelligence pathway units became available based on their credit prerequisite.

Units with a 0 credit prerequisite.

- *SIT102, SIT111, SIT105, SIT113, SIT123, SIT124, SIT190, STP050*

Units with a 1 credit prerequisite.

- *SIT103*

Units with a 2 credit prerequisite.

- *SIT182*

Units with a 3 credit prerequisite.

- *SIT112, SIT162*

Units with a 4 credit prerequisite.

- *SIT120, SIT151, SIT192*

Unit Outlines

PLEASE ENSURE YOU CHECK THE TRIMESTER 3 2021 UNIT OUTLINE FOR ANY CONTENT AND ASSESSMENT UPDATES.

SIT102 Introduction to Programming

This unit explores the relationship between computer program code and the software systems that are generated from them. Students will experience developing simple software using a variety of data types, selection and repetition control structures, functions, simple text files, and console and Graphical User Interfaces (GUIs) to interact with users.

Assessment: 100% learning portfolio

SIT103 Data and Information Management

This unit will provide a solid foundation for the design, implementation and management of database systems. Data modelling is introduced, focusing on entity-relationship (ER) modelling. The skills required to construct such ER diagrams will be explored, with a focus on ensuring that the semantics of the model match those of the real-world it is representing. The relational data model will be presented and the functionality it affords will be explored. The process of constructing, maintaining and retrieving information from the database using SQL will be a focus of this unit. Key implementation and management concepts, including transaction management and concurrency control, database backup and recovery, and security will be investigated.

Assessment: 10% quiz, 35% two practical assessments (10% + 15%), 15% SQL online tutorials, 40% final examination

SIT105 Thinking Technology and Design

In a world where technology is encompassing every part of our lives, the skill of thinking critically and solving problems can fall to the way side. Technology helps us to achieve a lot of things much more easily, which is great, but we need to control and shape it to fit our needs. If you do not exercise these skills, they will become fatigued and disappear but we need them to be paramount if we are to thrive in this technological world and design the next big thing. To be successful technologists, we need to be able to develop knowledge and confidence to think critically in order to analyse requirements of technological projects and synergise this with problem solving abilities to creatively respond to design challenges in order to get the best outcomes. The knowledge, understanding and skills you learn in this unit will aid in your ability to critically analyse information and design technologies with algorithms that will play a key role in enriching and transforming our society.

Assessment: 20% two quizzes (10% each), 40% two assignments (15% + 25%), 40% final examination

SIT111 Algorithms and Computing Systems

Over the past 70 years computing systems and algorithms have revolutionised nearly every facet of modern life, from healthcare to education, manufacturing to transport, and entertainment to agriculture. Computing hardware and the algorithms encoded into software are thus vital to the continued growth of modern society, as are computer scientists - the professionals who design and develop algorithms and computational solutions to many of the world's problems. In this unit students will investigate some of the major computing system innovations over the past 70 years, to understand the role of computer scientists, computing hardware, algorithms and software as drivers of change and innovation. The unit will also look at recent developments and applications of computer science that are set to revolutionise our futures, such as digital currencies, intelligent machines, and the Internet of Things.

Assessment: 10% critical reflection, 20% research report; 30% learning portfolio, 40% final examination

SIT112 Data Science Concepts

Data science is an emerging field and data scientists must be able to know how to make sense of data. In SIT112, students will develop knowledge of fundamentals in data science, in particular data manipulation and algorithms for analytics. The unit will also cover the practice of data science including ethical and responsible behaviour when crawling, cleaning, analysing, representing and repurposing the data. Students will be able to obtain data, recognise data formats, summarise and visualise relationships in the data, perform exploratory data analysis tasks and build predictive models.

Assessment: 25% individual task, 30% group task, 20% two quizzes (10% each), 25% final examination

SIT113 Cloud Computing and Virtualisation

Cloud computing represents a significant shift in the delivery of Information Technology to end users by introducing the ability to deliver infrastructure, platforms, and software via the network. This unit explores the technologies, models, benefits and risks of cloud computing and includes a study of virtualization as one of the key building blocks of most cloud computing solutions. Upon completion of the unit students will have a clear understanding of cloud computing, the types of problems solved by cloud computing, and the issues that must be considered when deploying cloud technologies in an organisation.

Assessment: 30% quizzes, 30% written report, 40% problem solving task

SIT120 Introduction to Responsive Web Apps

This unit will explore foundational knowledge of and basic skills related to responsive web app design and development. Students will learn basic HTML, responsive CSS and JavaScript skills in order to build web apps both for desktop and mobile devices. Students will develop an understanding of how web design and web programming work together, as well as learn fundamentals of responsive web design, mobile UI design, licensing of media, mobile screen handling, touch events, and game concepts.

Assessment: 30% project, 40% project implementation and presentation, 30% practical portfolio

SIT123 Data Capture Technologies

This unit will introduce students to ubiquitous and readily accessible devices for data capture, such as the sensor suite on a mobile smartphone, and those commonly used in homes, vehicles and current examples of cyber-physical systems. Students will be introduced to data capture protocols and methodologies, as well as data presentation and visualisation methods. Through practical investigations and analysis, students will investigate issues of robustness, reliability and validity of data and the effects of these on conclusions drawn from data.

Assessment: 30% lab reports, 30% project and poster presentation, 40% final examination

SIT124 Exploring I.T.

SIT124 is about exploring the IT Industry in the 21st century and the development and innovations that had led up to where IT stands today. Exploring IT focuses on how the web has been one of the biggest contributors in regards to the direction that IT has taken over the last decade. Within SIT124 students will start to develop their professional identify and explore the requirements needed to gain employment within the field through case studies and a peek behind the curtain provided by recent graduates. Students will also explore and acquire skills in web design and development, in order to gain an understanding of the important role that the web plays in the delivery and storage of information within the IT industry.

Assessment: 15% professional preparation document, 20% new technology website, 25% website development project, 40% final examination

SIT151 Game Fundamentals

This unit is for students to study the concepts that define the design and development of games. Through the combination of practical application and theory, students will learn about designing

games with a focus on engaging and refining their creative skills. Students will analyse existing games, learn about current processes of game design and development, and design a game implementation.

Assessment: 10% written report, 25% research essay, 30% game development and implementation, 35% final examination

SIT162 Introduction to Creative Technologies

The focus of this unit is to introduce students to the emerging field of creative technology, enabling students to build product that solve pressing social, community and creative problems. Students will explore applications of creative technology, investigating products from fields such as; Interactive media, Games, Virtual Reality and Augment reality. Across these creative technology systems combination of the five multimedia assets are common: text, images, sounds, video and animation. Students will apply their explorations into creative technologies to develop and demonstrate deliver a cohesive product that achieves given specifications, while taking into consideration audience, suitable technology and interactive design components. ***Assessment: 20% case study, 40% video presentation and report (submitted in two parts, 10% + 30%), 40% portfolio (submitted in two parts, 10% + 30%)***

SIT182 Real World Practices for Cyber Security

In SIT182 students will learn the real world practices of cyber security by solving problems based on realistic case studies. Students will explore fundamental concepts of risks in managing communication networks and choose the appropriate means to manage these risks. The unit enables students to understand threats and vulnerabilities in the context of how systems can be compromised and how we can prevent harm to systems. There will be a practical focus on how we can detect and respond to cyber-attacks. The key to learning will be introducing students to practices through case studies.

Assessment: 80% learning portfolio, 20% final examination

SIT190 Introductory Mathematical Methods

This unit aims to develop the fundamental functions of applied mathematics, and to introduce calculus to students who have not previously studied it in secondary school. It is designed to prepare students from a number of different disciplines for learning tertiary level mathematics. Students will explore the algebra of polynomials, exponentials, logarithms and trigonometric functions and learn rules for differentiating and integrating these functions. Applications studied include graph sketching, maximisation and minimisation problems, areas and kinematics.

Assessment: 40% three assignments (10% + 15% + 15%), 60% final examination.

SIT192 Discrete Mathematics

This unit provides students with the foundations in a range of areas in discrete mathematics, which is the basis for mathematical reasoning in applied sciences. SIT192 is designed to prepare students from a number of different disciplines for further study in the areas of linear algebra, number theory, graph theory, symbolic logic, set theory and combinatorics. These areas of study are vital for studying cryptography, networks, computer programming and analysis of algorithms.

Assessment: 80% learning portfolio, 20% final examination