# S406 BACHELOR OF COMPUTER SCIENCE (HONOURS)

# FACULTY OF SCIENCE, ENGINEERING AND BUILT ENVIRONMENT



#### FOR STUDENTS COMMENCING TRIMESTER 1 2025

Last updated 15/08/2024

When you first enrol via StudentConnect and go through the enrolment steps, you may be able to simply confirm any units that are pre-populated for you. You can also add any that you need to do, as part of your first year's enrolment – by using the information on this map and in the Handbook.

You must also complete the following compulsory zero (0) credit point units: <u>DAIOO1 Academic Integrity and Respect at Deakin</u> (0 credit points) AND <u>STPO10 Career Tools for Employability</u> (0 credit points)

AND SIT010 Safety Induction Program (O credit points)

YEAR <b>1</b>	Trimester 1	
Year: 2025	Trimester 2	
	Trimester 3	
YEAR	Trimester 1	
<b>2</b> Year: 2026	Trimester 2	
	Trimester 3	
YEAR  3	Trimester 1	
Year: 2027	Trimester 2	
	Trimester 3	
YEAR	Trimester 1	
4 Year: 2028	Trimester 2	
	Trimester 3	

Note: Students must have completed STP010 Career Tools for Employability (0-credit point unit) and SIT223 Professional Practice in Information Technology before commencing SIT306 IT Placements and Industry Experience.

Note: Students intending to undertake SIT344 Professional Practice are encouraged to seek course advice from Student Central early in Year 2 to begin planning for this unit.

Note: Entry to SIT746 Research Project (Advanced) is subject to specific unit entry requirements.

Note: Students wishing to complete more than one major or minor sequence or a combination of major and/or minor sequences in the Bachelor of Computer Science (Honours) cannot count more than two (2) units in common towards the sequences undertaken. Where a major and minor sequence share the same title, it is not possible for students to undertake both.

### S406 COURSE RULES

- Must pass 32 credit points for course
- Must pass ALL units in {DAI001, SIT010, SIT102, SIT103, SIT111, SIT112, SIT192, SIT202, SIT215, SIT221, SIT223, SIT232, SIT232, SIT315, SIT320, STP010}
- Must pass ALL units in {SIT374, SIT344} OR Must pass ALL units in {SIT374, SIT378, SIT306}
- Must pass ALL units in {SIT723}
- Must pass 1 units in {SIT724, SIT746}

- Must pass 14 credit points at levels {2, 3}
- Must pass 6 credit points at level {3}
- Must pass 4 credit points at level {7}
- (Must pass 1 unit set(s) in {Data Science (MJ-S000087), Robotics (MJ-S000088), Internet of Things (MJ-S000089), Computational Mathematics (MJ-S000097)} OR

Must pass 1 unit set(s) in {Embedded Systems (MN-S000005), Game Design (MN-S000006), Virtual and Augmented Reality (MN-S000009), Cloud Technologies (MN-S000011), Full Stack Development (MN-S000012), Information Technologies Research (MN-S000018), Computational Mathematics (MN-S000026)}

OR

Must pass 2 unit set(s) in {Embedded Systems (MN-S000005), Game Design (MN-S000006), Virtual and Augmented Reality (MN-S000009), Cloud Technologies (MN-S000011), Full Stack Development (MN-S000012), Information Technologies Research (MN-S000018), Computational Mathematics (MN-S000026)})

### FOR USE ONLY WHEN UNDERTAKING A CONSULTATION WITH A STUDENT ADVISER:

Student ID:		Name:		
Deakin email:			Preferred contact no:	
Year commenced:	Period commenced:	eCOE (if applicable):	Campus:	Mode:
Student adviser:	·			Date:

### Notes

### **GENERAL INFORMATION**

This course map is a guide only. You must also ensure you meet the course rules and structure as set out in the official <u>University Handbook</u> of the year you commenced your course. This course map has been created to be used electronically.

Not all units are available in all study periods or mode of delivery.

- Full time study is typically three to four units (or credit points) each study period.
- Part time study is typically one to two units (or credit points) each study period part time study will extend the duration of your studies.
- Trimester 3 is typically an optional study period unless it's your first study period and/or a compulsory study period for your course.

Unit options can be found in the 'Advanced Unit Search' in the most current year's University Handbook.

If you have applied for or received credit for units as recognition of prior learning (RPL), it may alter the units you need to study.

Please seek advice from a Student Adviser in StudentCentral if you have any queries or need help understanding your course structure and unit options.

### S406 BACHELOR OF COMPUTER SCIENCE (HONOURS) MAJOR UNIT SETS

COMPUTATIONAL MATHEMATICS (MJ-S000097)	
SIT190 Introduction to Functions, Relations and Graphs	

SIT191 Introduction to Statistics and Data Analysis
SIT194 Introduction to Mathematical Modelling
SIT281 Cryptography
SIT291 Mathematical Methods for Information Modelling
SIT316 Optimisation and Constraint Programming
SIT334 Numerical Methods in Mathematics

### Completion Rule

- Must pass 1 credit points in {SIT190, SIT191}
- Must pass 5 credit points in {SIT194, SIT281, SIT291, SIT316, SIT334}

DATA SCIENCE (MJ-S000087)
SIT191 Introduction to Statistics and Data Analysis
SIT199 Applied Algebra and Statistics
SIT220 Data Wrangling
SIT307 Machine Learning
SIT314 Software Architecture and Scalability for Internet-Of-Things
SIT319 Deep Learning
SIT330 Natural Language Processing

# Completion Rule

- Must pass all unit(s) in {SIT220, SIT307, SIT314, SIT319, SIT330}
- Must pass 1 credit points in {SIT191, SIT199}

INTERNET OF THINGS (MJ-S000089)
SIT210 Embedded Systems Development
SIT225 Data Capture Technologies
SIT307 Machine Learning
SIT314 Software Architecture and Scalability for Internet-Of-Things
SIT329 Advanced Embedded Systems
SIT331 Full Stack Development: Secure Backend Services

# Completion Rule

• Must pass all unit(s) in {SIT210, SIT225, SIT307, SIT314, SIT329, SIT331}

# ROBOTICS (MJ-S000088)

SIT122 Robotics Studio

SIT210 Embedded Systems Development
SIT225 Data Capture Technologies
SIT310 Robotics Application Development
SIT315 Concurrent and Distributed Programming
SIT332 Robotics, Computer Vision and Speech Processing

Completion Rule

• Must pass all unit(s) in {SIT122, SIT210, SIT225, SIT310, SIT315, SIT332}

# S406 BACHELOR OF COMPUTER SCIENCE (HONOURS) MINOR UNIT SETS

CLOUD TECHNOLOGIES (MN-S000011)
SIT226 Cloud Automation Technologies
SIT233 Cloud Computing
SIT314 Software Architecture and Scalability for Internet-Of-Things
SIT323 Cloud Native Application Development

Completion Rule

• Must pass all unit(s) in {SIT226, SIT233, SIT314, SIT323}

COMPUTATIONAL MATHEMATICS (MN-S000026)
SIT190 Introduction to Functions, Relations and Graphs
SIT194 Introduction to Mathematical Modelling
<u>SIT281 Cryptography</u>
SIT291 Mathematical Methods for Information Modelling
SIT292 Linear Algebra for Data Analysis
SIT316 Optimisation and Constraint Programming
SIT334 Numerical Methods in Mathematics

Completion Rule

- Must pass 1 credit points in {SIT190, SIT194}
- Must pass 2 credit points in {SIT281, SIT291, SIT292}
- Must pass 1 credit points in {SIT316, SIT334}

EMBEDDED SYSTEMS (MN-S000005)
SIT122 Robotics Studio
SIT210 Embedded Systems Development
SIT225 Data Capture Technologies

#### SIT329 Advanced Embedded Systems

### Completion Rule

• Must pass all unit(s) in {SIT122, SIT210, SIT225, SIT329}

# FULL STACK DEVELOPMENT (MN-S000012)

SIT120 Introduction to Responsive Web Apps

SIT305 Mobile Application Development

SIT313 Full Stack Development: Secure Frontend Applications

SIT331 Full Stack Development: Secure Backend Services

#### Completion Rule

• Must pass all unit(s) in {SIT120, SIT305, SIT313, SIT331}

### GAME DESIGN (MN-S000006)

SIT151 Game Fundamentals

SIT253 Content Creation for Interactive Experiences

SIT254 Game Design

SIT283 Development for Virtual and Augmented Reality

### Completion Rule

• Must pass all unit(s) in {SIT151, SIT253, SIT254, SIT283}

### INFORMATION TECHNOLOGIES RESEARCH (MN-S000018)

SIT718 Real World Analytics

SIT747 Research Project (Publication)

SLE761 Professional Research Practice

## Completion Rule

• Must pass 4 credit points in {SIT718, SIT747, SLE761}

### **VIRTUAL AND AUGMENTED REALITY (MN-S000009)**

SIT183 Interactive Application Design for Virtual and Augmented Reality

SIT253 Content Creation for Interactive Experiences

SIT283 Development for Virtual and Augmented Reality

 $\underline{\hbox{SIT383 Assembling Virtual and Augmented Reality Experiences}}$ 

### Completion Rule

• Must pass all unit(s) in {SIT183, SIT253, SIT283, SIT383}