

# Bachelor of Engineering (Honours)

## Specialisation in Software Engineering

### ASSUMED KNOWLEDGE

- HSC Mathematics Advanced (Band 4) or equivalent. If you don't have the assumed knowledge, you're advised to undertake a bridging course in mathematics.

### RECOMMENDED STUDIES

- HSC Mathematics Extension 1 or HSC Mathematics Extension 2
- HSC Physics, or equivalent.
- HSC Software Design and Development or equivalent.

### COURSE STRUCTURE

#### ESSENTIAL UNITS: Complete each unit below 60 cp

ENGG1000	Introduction to Engineering	10 CP
ENGG1050	Engineering Design	10 CP
ENGG2000	Engineering Practice	10 CP
ENGG2050	Engineering Systems and Design Thinking	10 CP
ENGG3000	Engineering Project Practice	10 CP
ENGG3050	Engineering Leadership and Entrepreneurship	10 CP
ENGG4099	PACE: Industry Experience	No CP

#### CAPSTONE UNIT: Complete the capstone unit below 10 cp

ENGG4001	Professional Practice	10 CP
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**Essential Units Total = 70 Credit Points**

#### Flexible zone 40 cp

**40cp of elective units. You can use your flexible zone to enrol in any Undergraduate unit for which you meet the requisites. You may also use your flexible zone to complete a minor.**

Options include: Ancient History, Anthropology, Astronomy and Astrophysics, Biology, Biotechnology, Business Administration, Business Analytics, Business Information Systems, Chemistry, Chinese Studies, Creative Writing, Criminology, Critical Indigenous Studies, Cyber Security Governance, Earth and Environmental Sciences, Economics, English, French and Francophone Studies, Gender Studies, Geography, German Studies, Health, Wellbeing and Society, Human Biology, Human Resource Management, Interactive Design, International Business, International Relations, Japanese Studies, Journalism and Non-Fiction Writing, Management and Leadership, Marine Science, Mathematics, Media, Culture and Communications, Modern History, Music Studies, Performing Arts and Entertainment Industries, Physics, Philosophy, Politics, Psychological Science, Public Relations and Social Media, Radio, Podcasting and Audio Media, Screen Practice and Production, Sociology, Spanish and Latin American Studies, Statistical Data Science, Strategy, Innovation and Entrepreneurship, and Work, Life and Technology.

**Flexible Zone = 40 Credit Points**

#### Specialisation in Software Engineering

#### Complete all units below. Each unit is 10 cp

COMP1000	Introduction to Computer Programming
COMP1010	Fundamentals of Computer Science
COMP1050	Introduction to the Study of Software Engineering
COMP1300	Introduction to Cyber Security
COMP1350	Introduction to Database Design and Management
MATH1007	Discrete Mathematics I
COMP2000	Object-Oriented Programming Practices
COMP2010	Algorithms and Data Structures
COMP2050	Software Engineering
COMP2100	Systems Programming
COMP2250	Data Communications
MATH2907	Discrete Mathematics II
COMP3000	Programming Languages
COMP3010	Algorithm Theory and Design
COMP3100	Distributed Systems
COMP3310	Secure Applications Development
COMP4000	Formal Methods
COMP4050	Software Engineering Practices
COMP4060	Advanced Software Engineering
COMP4092	Software Engineering Research Thesis A
COMP4093	Software Engineering Research Thesis B

**Specialisation = 210 Credit Points**

**Degree = 320 Credit Points**

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