

# 62550 Master of Professional Engineering

## Software Engineering (SP-ESOFT)

### 2 Year Course Study Plan – Commencing Semester 1, 2021

The Level 1, 2 and 3 prerequisites listed below apply to students undertaking preparatory units in the 2 – 3 year MPE. Students enrolling in the 2-year MPE with 48 points block credit have already satisfied the Level 1, 2 and 3 prerequisites. Level 4 and 5 prerequisites apply to all students.

Year 1				
Semester 1, 2021	CITS4401 Software Requirements and Design	OPTION	GENG5505* Project Management and Engineering Practice Prereq: ENSC1001 or ENSC1003	OPTION
Semester 2, 2021	CITS5551 Software Engineering Design Project 1 Prereq: 24 points of L4/L5 units	OPTION	GENG5507* Risk, Reliability and Safety Prereq: MATH1011 and MATH1012	OPTION
It is recommended students undertake some practical work experience during the summer break to satisfy the GENG5010 Professional Engineering Portfolio				
Year 2				
Semester 1, 2022	CITS5552 Software Engineering Design Project 2 Prereq: CITS5551	CITS5501 Software Testing and Quality Assurance Prereq: 12 points of programming-based units*	OPTION	GENG5511* Engineering Research Project Part 1 Prereq: 24 points of L4/L5 units
Semester 2, 2022	CIT5507 High Performance Computing Prereq: 12 points of programming-based units*	CITS5503 Cloud Computing Prereq: 12 points of programming-based units*	OPTION	GENG5512* Engineering Research Project Part 2 Prereq: GENG5511
It is recommended students undertake some practical work experience during the summer break to satisfy the GENG5010 Professional Engineering Portfolio				

\* unit is available in Semester 1 and Semester 2; \* programming-based units are: CITS1001 Software Engineering with Java; CITS1401 Computational Thinking with Python; CITS2002 Systems Programming and CITS2200 Data Structures and Algorithms; CITS2401 Computer Analysis and Visualisation; CITS2402 Introduction to Data Science; CITS4009 Computational Data Analysis or equivalent.

Optional Units: Students take units to the value of 36 points from this group:	
BUSN5100 Applied Professional Business Communications (S1, S2)	CITS5508 Machine Learning (S1) Prereq: 12 points of programming-based units*
CITS4009 Computational Data Analysis (S2)	ELEC4406 Digital System Design (S2) Prereq: ENSC3020
CITS4402 Computer Vision (S1) Prereq: CITS2401 and MATH1012 (Note: Students must have the ability to program in a high-level programming language and the ability to reason in linear algebra and calculus.)	GENG4402 Control Engineering (S2) Prereq: MATH1001 and ENSC2001
CITS4403 Computational Modelling (S1)	GENG4405 Numerical Methods and Modelling (S2)

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Prereq: 6 points of programming-based units*	Prereq: CITS2401
<b>CITS4404</b> Artificial Intelligence and Adaptive Systems (S2) Prereq: 12 points of programming-based units*	<b>GENG5508</b> Robotics (S1) Prereq: CITS1001 or CITS1401 or CIST2002 or CITS2401
<b>CITS4419</b> Mobile and Wireless Computing (S2) Prereq: CITS1001 and CITS2002 and CITS3002	<b>SVLG5003</b> Wicked Problems (NSTP) Note: Enrolment in this unit is subject to approval by the unit coordinators.

The Rules for the 62550 Master of Professional Engineering can be found at: [handbooks.uwa.edu.au/rules-62550-MPE](http://handbooks.uwa.edu.au/rules-62550-MPE)

All units have a value of six points unless otherwise stated.

Information about unit availability should be checked at the beginning of each semester and can be found at: [timetable.uwa.edu.au](http://timetable.uwa.edu.au) or [Handbooks](#).

#### Further Help!

Refer to the UniStart website for your step-by-step guide on planning your enrolment: [uwa.edu.au/unistart](http://uwa.edu.au/unistart). If you need to discuss your study plan further, please contact the EMS Student Service and Engagement Office: [enquiries-ems@uwa.edu.au](mailto:enquiries-ems@uwa.edu.au)