2 Year Course Study Plan – Commencing Semester 1

Level 4 and 5 prerequisites apply to all students.

The Level 1, 2 and 3 prerequisites listed below apply to students undertaking preparatory units in the 2 – 3 year MPE. You must complete any undergraduate pathway units in the first 48 points of the MPE.

Students enrolling in the 2-year MPE with 48 points block credit or relevant Engineering Science pathway have already satisfied the Level 1, 2 and 3 prerequisites.

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| **Year 1** | | | | |
| *It is recommended students undertake some practical work experience during the summer break to satisfy the GENG5010 Professional Engineering Portfolio* | | | | |
| Semester 1 | PHYS5401  Medical Imaging Physics | BMEG4002  Biomaterials  Prereq: ENSC1004 Engineering Materials or MECH2002 Engineering Materials 2 | SSEH4633  Advanced Biomechanical Methods  Prereq: SSEH3355 Biomechanical Principles | BMEG4003  Biomechanics  Prereq: ENSC2004 Engineering Mechanics |
| Semester 2 | BMEG4001  Biomedical Instrumentation  Prereq: ENSC3015 Signals and Systems | GENG5505  Project Management and Engineering Practice | OPTION | GENG5507  Risk, Reliability and Safety |
| *It is recommended students undertake some practical work experience during the summer break to satisfy the GENG5010 Professional Engineering Portfolio* | | | | |
| **Year 2** | | | | |
| Semester 1 | BMEG5551  Biomedical Engineering Design Project 1  Prereq: Completion of 24 points of L4/L5 units | SCIE5516  Materials Characterisation for Bioengineering and Synthetic Biology | OPTION | GENG5511  Engineering Research Project Part 1  Prereq: Completion of 24 points of L4/L5 units |
| Semester 2 | BMEG5552  Engineering Research Project Part 2  Prereq: BMEG5551 | BMEG5001  Advanced Topics in Biomedical Engineering  APS: BMEG4001 & BMEG4002 & BMEG4003 | OPTION | GENG5512  Engineering Research Project Part 2  Prereq: GENG5511  [taken in semester after GENG5511] |
| *Students must complete all credit bearing units and GENG5010 Professional Engineering Portfolio to be eligible to graduate* | | | | |

*unit is available in Semester 1 and Semester 2;* N/A = unit not available for 2024*;* NS = unit is delivered during a non-standard teaching period

Refer to Table of Options overleaf.

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| **Students take units to a total value of 18 points, comprising either:**  **(A) 12 points from Group A and 6 points from Group B, or**  **(B) 12 points from Group C and 6 points from Group B or**  **(C) 18 points from Group B** | |
| **GROUP A OPTIONS** | **GROUP B OPTIONS** |
| SCIE4001 Collecting, Analysing and Interpreting Big Data in Biology (S1, S2) | CITS4402 Computer Vision (S1)  Prereq: unit on programming |
| SCIE4002 Bioinformatics and Data Analysis for Genomics (S2) | GENG4402 Control Engineering (S2) |
|  | GENG4405 Numerical Methods and Modelling (S2) |
|  | PUBH5769 Biostatistics II (S2)  Prereq: PUBH4401 Biostatistics I or equivalent training / experience |
|  | SCIE5515 Global Challenges in Biomedical Science (S1, S2) |
|  | SVLG5003 Wicked Problems (N/A)  Enrolment in this unit is subject to approval by the unit coordinators. |
|  | BUSN5100 Applied Professional Business Communications (S1, S2)  *Note: only to be taken in first 48 points* |
| **GROUP C OPTIONS** |  |
| MKTG5503 Enterprise and Innovation (S1) | MKTG5604 Technology Commercialisation (S2)  Prereq: MKTG5503 Enterprise and Innovation |

*unit is available in Semester 1 and Semester 2;* N/A = unit not available for 2024*;* NS = unit is delivered during a non-standard teaching period

 Programming-based units are: [CITS2005](https://handbooks.uwa.edu.au/unitdetails?code=CITS2005) Object Oriented Programming; [CITS1401](https://handbooks.uwa.edu.au/unitdetails?code=CITS1401) Computational Thinking with Python; [CITS2002](https://handbooks.uwa.edu.au/unitdetails?code=CITS2002) Systems Programming; [CITS2200](https://handbooks.uwa.edu.au/unitdetails?code=CITS2200) Data Structures and Algorithms; [CITS2401](https://handbooks.uwa.edu.au/unitdetails?code=CITS2401) Computer Analysis and Visualisation; [CITS2402](https://handbooks.uwa.edu.au/unitdetails?code=CITS2402) Introduction to Data Science; and [CITS4009](https://handbooks.uwa.edu.au/unitdetails?code=CITS4009) Computational Data Analysis.

The Rules for the 62550 Master of Professional Engineering can be found at: <https://handbooks.uwa.edu.au/coursedetails?code=62550#rules>

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://www.timetable.uwa.edu.au/) or [Handbooks.](https://handbooks.uwa.edu.au/)

Further Help!

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