

BE (Hons) Mechatronics Engineering (AK3751)

2027 Study Plan (Refresh)

This refreshed Study Plan applies to students who began the BE Hons programme in 2024 or later.

If you started the programme before 2024, please refer to the old structure Study Plan with the grey shading.

Notes:

- Once you have made your course selections, go to MyAUT to complete your enrolment.
- S1 = Semester 1, S2 = Semester 2
- Pre-requisite papers are shown in brackets after each paper. **Please ensure you have completed all necessary pre-requisite courses before you enrol for a course.**
- For enrolment queries or issues, please email your Academic Administrator at: engineer@aut.ac.nz
- The **course level** is the first digit of the numeric part of the course code (E.g., ENGE500 is a level 5 course).

YEAR 1 - for students who started 2024 onwards					
ENGE501	Engineering Mathematics I	S1 / S2	ENGE500	Introduction to Sustainable Engineering Design	S1 / S2
ENGE503	Engineering Mechanics	S1 / S2	DIGD507	Mahitahi: Collaborative Practices	S1 / S2
ENGE504	Electrical Engineering Fundamentals	S1 / S2	COMP500	Programming Concepts and Techniques	S1 / S2
ENME502	Engineering Materials I	S1 / S2	ENGE601	Engineering Mathematics II (ENGE501)	S1 / S2

YEAR 2					
ENME608	Mechanisms and Dynamics of Machinery (ENGE503, ENGE501)	S1	ENGE600	Engineering Management I	S2
ENEL608	Intro to Microcontrollers (COMP500)	S1	ENEL602	Electronics Project (ENGE504, ENEL608)	S1 / S2
ENME609	Solid Mechanics I (ENGE501, ENME502, ENGE503)	S1	ENEL606	Analogue and Digital Systems (ENGE504)	S2
ENGE702	Engineering Mathematics III (ENGE601)	S1 / S2	ENME601	Thermodynamics (ENGE503)	S2

If you are taking the courses for the first time, students should take Maths III (ENGE702) in S1 and Project (ENEL602) in S2

YEAR 3 - students must have completed all Year 1 papers					
ENEL702	Instrumentation and Control Systems (ENEL606, ENGE601)	S1	ENEL700	Communication Engineering (ENEL606)	S2
ENME701	System Dynamics and Vibrations (ENME608, ENGE702)	S1	ENME703	Mechatronics Design and Control (ENME608, ENME701)	S2
ENEL712	Embedded System Design (ENEL606, ENEL608)	S1	ENEL711	Machines and Drives (ENEL702)	S2
General Elective*	any level 5 or above paper offered within the university	S1 / S2	ENGE707	Data Engineering and AI (COMP500)	S2

YEAR 4 - students must have completed all Year 1 and Year 2 papers					
ENGE891	Final Year Research Project (Part A)	S1 / S2	ENGE892	Final Year Research Project (Part B)	S2
ENEL809	Digital Control (ENEL702)	S1	ENGE803	Innovation and Research Management	S2
Level 8 Elective	Choose from Level 8 Electives listed on the back page	S1 / S2	Level 8 Elective	Choose from Level 8 Electives listed on the back page	S1 / S2
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Level 8 Electives - <i>choose four electives from the list below</i> (subject to change)					
ENGE800	Eng Numerical Techniques and Statistical Analysis (ENGE702)	S1	ENME800	Industrial Robotics: Mechanics and Planning (ENME608)	S2
ENME802	Computer Aided Engineering and Analysis (ENME609, ENME601)	S1	ENSE808	Digital Systems Design (ENEL712)	S2
ENSE807	Digital Signal Processing (ENEL712)	S1	ENGE810	Special Topics – Autonomous Mobile Robotics (ENME703)	S2

Plus: completion of **ENGE888 Engineering Work Experience** (enrol in either S1 or S2)

- No fees or credits are attached to this course
- Must be completed in order to graduate
- Send the **approval form** to the Work Experience Coordinator (daniel.konings@aut.ac.nz) for your work to be considered/approved prior to commencement of work
- Complete 800 hours of work
- Submit a 4500 - 5000 word report through Canvas (email engineer@aut.ac.nz when you are ready to submit the report so you can be enrolled or if you have any questions)

* A **General Elective** is any Level 5 paper or above within the university. Students can choose a General Elective from the link below and get approval from the respective school where the course belongs to, before informing us to be enrolled – <https://www.aut.ac.nz/study/study-options/elective-courses>

Note: The total time from first enrolment in a four-year bachelor's degree with honours until the completion of all requirements must not exceed **eight years**.