

BE (Hons) Mechanical 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 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

ENME607	Manufacturing Technology (ENME502)	S1	ENME601	Thermodynamics (ENGE503)	S2
ENME608	Mechanisms and Dynamics of Machinery (ENGE503, ENGE501)	S1	ENME602	Engineering Design & Methodology (ENGE500, ENGE503)	S2
ENME609	Solid Mechanics I (ENGE501, ENME502, ENGE503)	S1	ENME603	Fluid Mechanics (ENGE503, ENGE601)	S2
ENGE702	Engineering Mathematics III (ENGE601)	S1 / S2	ENGE600	Engineering Management I	S2

YEAR 3 - students must have completed all Year 1 papers

ENME701	System Dynamics and Vibrations (ENME608, ENGE702)	S1	ENME700	Engineering Materials II (ENME502, ENME607, ENME609)	S2
ENME704	Solid Mechanics II (ENME609, ENGE601)	S1	ENME702	Mechanical Design (ENME608, ENME609, ENME602)	S2
ENME707	Heat Transfer (ENME601, ENME603, ENGE702)	S1	ENME703	Mechatronics Design and Control (ENME608, ENME701)	S2
ENGE800	Engineering Numerical Techniques and Statistical Analysis (ENGE702)	S1	ENME708	Advanced Manufacturing Technology (ENME502, ENME607)	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)	S1 / S2
General Elective (GE)*	Any level 5 paper or above within the university	S1 / S2	ENGE803	Innovation and Research Management	S2
Level 8 Elective	Choose from Level 8 Electives listed on back page	S1 / S2	Level 8 Elective	Choose from Level 8 Electives listed on back page	S1 / S2
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And choose four Level 8 electives from the below (subject to change)

ENME802	Computer Aided Engineering and Analysis (ENME609, ENME601)	S1	ENME800	Industrial Robotics: Mechanics and Planning (ENME608)	S2
ENME804	Advanced Mechanical Design (ENME702, ENME704, ENME701)	S1	ENME803	Fracture Mechanics and Failure Analysis (ENGE702, ENME704, ENME700)	S2
ENME806	Biomedical Thermofluids Modelling (ENME601, ENME603, ENGE800)	S1	ENGE810	Special Topics – Autonomous Mobile Robotics (ENME703)	S2
ENGE808	Advanced Measuring Systems	S1			

* 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>

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 (tet.chuan.lee@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)

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**.