

The Degree of Master of Aerospace Engineering (MAerospaceEng – 180 points)

These regulations must be read in conjunction with the General Regulations for the University.

1. Version

- (a) These Regulations came into force on 1 January 2024.
- (b) This degree was first offered in 2024.

2. Variations

In exceptional circumstances the Amo Matua, Pūhanga | Executive Dean of Engineering or delegate may approve a personal programme of study which does not conform to these Regulations.

3. The structure of the qualification

To qualify for the Master of Aerospace Engineering degree a student must complete a programme of study that consists of courses totalling no less than 180 points including:

- (a) a 120-point thesis, as listed in Schedule C to these Regulations; and
- (b) at least 30 points of the elective courses listed in Schedule E: Group 1 to these Regulations; and
- (c) up to 30 points of the elective courses listed in Schedule E: Group 2 to these Regulations. A student may select 400 or 600-level courses not listed in Schedule E if they are deemed necessary to support their thesis study and approved by the Amo Matua, Pūhanga | Executive Dean of Engineering or delegate.

4. Admission to the qualification

To be admitted to the Master of Aerospace Engineering a student must have:

- (a) either
 - i. qualified for the Degree of Bachelor of Engineering with First or Second Class Honours in Aotearoa New Zealand in appropriate subjects; or
 - ii. qualified for the award of the Master of Engineering Studies in Aotearoa New Zealand with a GPA of 5.0 or more; or
 - iii. qualified for the Degree of Bachelor of Science with First or Second Class Honours in Aotearoa New Zealand in appropriate subjects; or
 - iv. qualified for the award of the Master of Science in Aotearoa New Zealand in appropriate subjects with a GPA of 5.0 or more; or
 - v. qualified for the award of the Postgraduate Diploma in Science in Aotearoa New Zealand in appropriate subjects with a GPA of 5.0 or more; or
 - vi. been admitted with Academic Equivalent Standing for the Degree of Master of Aerospace Engineering; and
- (b) been approved as a candidate for the Degree by the Amo Matua, Pūhanga | Executive Dean of Engineering or delegate.

5. Subjects

There are no majors, minor or endorsements for this qualification.

6. Time limits

This qualification adheres to the General Regulations for the University, unless an exemption is granted by the Amo Matua, Pūhanga | Executive Dean of Engineering or delegate, with a time limit of 36 months.

7. Transfers of credit, substitutions and cross-credits

This qualification adheres to the Credit Recognition and Transfer Regulations with no additional stipulations.

8. Progression

This qualification adheres to the General Regulations for the University, which permits 30 points of course failures to qualify for the degree, with no additional stipulations.

9. Honours, Distinction and Merit

This qualification adheres to the General Regulations for the University and may be awarded with distinction and merit.

10. Exit and Upgrade Pathways to other Qualifications

(a) Exit Pathways:

- i. A student for the MAerospaceEng who has not met the requirements for the MAerospaceEng but who has satisfied all requirements for the Postgraduate Certificate in Engineering may apply to the Amo Matua, Pūhanga | Executive Dean of Engineering or delegate to withdraw from the MAerospaceEng and be awarded the Postgraduate Certificate in Engineering.
- ii. A student for the MAerospaceEng who has not met the requirements for the MAerospaceEng but who has satisfied all requirements for the Postgraduate Certificate in Engineering with a GPA of 5.0 or more, may apply to the Amo Matua, Pūhanga | Executive Dean of Engineering or delegate to transfer to the Mechanical Engineering Endorsement in the Master of Engineering Studies.

(b) Upgrade Pathway:

- i. A MAerospaceEng student who has undertaken at least 90 points of thesis research study and has successfully completed all milestones associated with MAerospaceEng may, with the support of the relevant Tumuaki Tari | Head of Department and the relevant Amo Matua | Executive Dean, apply to transfer to a relevant PhD degree, with thesis enrolment backdating as approved by the Amo Rangahau | Dean of Postgraduate Research.

Schedule C: Compulsory Courses for the Degree of Master of Aerospace Engineering

For full course information, go to www.canterbury.ac.nz/courses

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ENAS690	MAerospaceEng Thesis	120	A	Campus	P: Subject to approval of the Executive Dean of Engineering, based upon the student identifying a research topic and an appropriate thesis supervisor.

Schedule E: Elective Courses for the Degree of Master of Aerospace Engineering

Group 1

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ENGR601	Advanced Computational Fluid Dynamics	15	S1	Campus	P: Subject to approval of the Head of Department R: ENGR401 RP: Bachelors degree in Engineering or equivalent
ENME488	Special Topic: Mechanics of Flight and Spaceflight	15	S2	Campus	P: EMTH271
ENME603	Advanced Linear Systems Control and System Identification	15	S1	Campus	P: Subject to approval of the Head of Department. R: ENME403 RP: Bachelors degree in Engineering or equivalent
ENME604	Advanced Aerodynamics and Ground Vehicle Dynamics	15	S2	Campus	P: Subject to approval of the Head of Department. R: ENME404 RP: Bachelors degree in Engineering or equivalent
ENME660	Aerospace Propulsion	15	S2	Campus	P: Approval from Head of Department. R: ENME460

Group 2

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ASTR422	Theoretical and Observational Cosmology	15	S1	Campus	P: Subject to approval of the Head of Department. Prior astronomy courses would be useful but are not essential as we will cover any needed subjects during the course. R: ASTR332
ASTR423	Stellar Structure and Evolution	15	NO		P: Subject to approval of the Head of Department. R: ASTR323
COSC428	Computer Vision	15	SU2	Campus	P: Subject to approval of the Head of Department. EQ: COSC428
ENCH484	Advanced Modelling and Simulation	15	S1	Campus	P: ENCH391 Process Systems and Control
ENEL420	Advanced Signals	15	SU1 S2	Campus Campus	P: ENEL320 OR ENMT301 R: ENEL440
ENEL422	Communications Engineering	15	S1	Campus	P: ENEL320 R: ENEL433
ENME406	Engineering Product Design and Analysis	15	S2	Campus	P: ENME302, EMTH210, ENME201, ENME202, ENME215, EMTH271, ENME203, ENME207, ENME221
ENME407	Advanced Materials Science and Engineering	15	S1	Campus	P: ENME307, EMTH210, ENME201, ENME202, ENME215, EMTH271, ENME203, ENME207 and ENME221. R: ENME607
ENME411	Advanced Mechanical Systems Design	15	S2	Campus	P: ENME401, EMTH210, EMTH271, ENME201, ENME202, ENME203, ENME207, ENME215, ENME221.
ENME427	Engineering Failure Analysis and Prevention	15	S2	Campus	P: (1) ENME207 and (2) ENME307, or equivalent or with instructor permission. and EMTH210, ENME201, ENME202, ENME215, EMTH271, ENME203, ENME221
ENME623	Advanced Instrumentation and Sensors	15	S1	Campus	P: Subject to approval of the Head of Department. R: ENME423 RP: Bachelors degree in Engineering or equivalent
ENMT482	Robotics	15	S2	Campus	P: ENME403
GISC404	Spatial Analysis	15	S1	Campus	P: Subject to the approval of the Programme Director. RP: GEOG-DIGI205 or GISC422 or equivalent, GEOG 323
GISC405	Environmental and Climate Data Analytics	15	S2	Campus	P: GISC101 or GISC401 or equivalent.
GISC406	Remote Sensing for Earth Observation	15	S1	Campus	P: GEOG205, GEOG208 R: GEOG407
GISC412	Spatial Data Science	15	S2	Campus	P: GISC401 or COSC121 or COSC480 or equivalent
PHYS413	Laser Physics and Modern Optics	15	S1	Campus	P: Subject to approval of the Head of Department. R: PHYS323
PHYS419	Atmospheric, Oceanic and Climate Dynamics	15	NO		P: (1) PHYS201 or PHYS202 or PHYS203; (2) MATH103 or MATH109 or EMTH119 or MATH201. R: PHYS316, PHYS418, PHYS446, PHYS319 RP: MATH202
PROD601	Design Critique and Research Methods	15	S1	Campus	P: Approval of the Head of the School of Product Design
PROD602	Systems Thinking for Product Design	15	S2	Campus	P: Approval of the Head of the School of Product Design
PROD611	Design and Manufacture	15	S2		P: Approval of the Head of the School of Product Design