MECHANICAL ENGINEERING CURRICULUM UPDATES & ENROLLMENT UPDATES

NEW

Opportunity for Space and Mechanical Engineering Students – Pursue new Mechatronics Certificate alongside your Bachelor of Engineering

A unique chance to get involved in cutting-edge space projects is now available exclusively to Space and Mechanical Engineering students. Learn from active researchers, build real-world experience, and be part of high-impact initiatives.

What's in it for you:

- Work on innovative, hands-on engineering projects
- Collaborate with experts in space systems and technology
- Join student teams competing and succeeding on a global stage
- Build skills that cross disciplines and industries

Don't miss this chance to go beyond the classroom and into the future of space.

Courses to complete → Mechatronics Certificate

NEW

Course Sequencing Updates

Starting Summer 2026:
- MECH 3409 3.00 Machine Elements Design will *no longer* be offered in Summer
- MECH 3203 3.00 Heat Transfer *will be offered* in Summer

Starting Fall/Winter 2026-2027:
- MECH 4510 3.0 will be paused for 2026-2027
- MECH 2412 3.00 Mini Design Project 1 will only be offered in Winter 2027
- Among new 2nd year Mechanical Engineering students, some will need to take MECH 2412 in the Fall term of their 3rd year
- For students completing MECH 2412 in Winter 2027, they must complete MECH 2401 prior to, i.e., Summer 2026 or Fall 2026
- *Due to course capacity, not all 2nd year Mechanical Engineering students will complete **MECH 2412** in 2nd year (continue reading)*
- MECH 4403 will be paused for Fall 2026. The offering *may* return in Winter 2027.

Starting Fall/Winter 2027-2028:
- MECH 2412 3.00 Mini Design Project 1 will be offered in *both* Fall and Winter terms

For students who will take MECH 2412 in Fall 2027 (i.e., 3rd year of their studies), they can balance their course load by considering the following options:

Year 2 Fall Term: Two of MECH 2202, MECH 2401, MECH 2502
Year 2 Winter Term: One of MECH 2202, MECH 2401, MECH 2502; AND one of MECH 3302, MECH 3409, MECH 3502 (*note: MECH 2401 is a prerequisite for MECH 3409*)

Year 3 Fall Term: MECH 2412; AND one of MECH 3302, MECH 3409, MECH 3502, MECH 3504
Year 3 Winter Term: Two of MECH 3302, MECH 3409, MECH 3502, MECH 3504

NEW

Course Sequencing Updates

Mechanical Engineering has added several double offerings of the below courses to provide flexibility when course planning:

2nd year:
- MECH 2201 (Fall & Winter)
- MECH 2301 (Fall & Winter)
- MECH 2202 (2 Winter offerings)
- All 2nd year MECH courses (except for MECH 2412 Mini Design I) now have a double offering.

3rd year:
- MECH 3409 (Fall & Winter)
- MECH 3302 (Fall & Winter)
- MECH 3502 (Fall & Winter)
- MECH 3504 (Fall & Winter)

RECAP

For students following the 2023-2024 Academic Calendar and prior:

MECH 4401 3.00 and MECH 4504 3.00 are no longer offered. Review each scenario below and enrol in the required make-up course(s).

Scenario	MECH 4401 3.00	MECH 4504 3.00	Make-up Course(s)
1	Passed	Passed	Not applicable. Degree requirements already satisfied.
2	Not taken or failed	Passed	Complete MECH 4411 3.00
3	Passed	Not taken or failed	Complete MECH 4411 3.00
4	Not taken or failed	Not taken or failed	Complete MECH 4411 3.00 and minimum 3.00 *additional* credits from:* MECH 4201 3.00, MECH 4202 3.00, MECH 4203 3.00, MECH 4301 3.00, MECH 4510 3.00, MECH 4511 3.00, MECH 4512 3.00, ENG 4650 3.00, MECH 4403 3.00, ESSE 3380 4.00, ESSE 4380 4.00

If a student has taken MECH 4401 and MECH 4504, but then wants to repeat one of the courses to increase their GPA, the student can take MECH 4411 and use that to replace the lower grade of MECH 4401 or MECH 4504. After completing MECH 4411, students in this scenario must connect with a Lassonde Academic Advisor to ensure their record is updated correctly and in accordance with the Course Repeat Policy.

RECAP

For students following the 2019-2020 Academic Calendar and prior:

Scenario	MECH 4201 3.00	MECH 4510 3.00 or MECH 4511 3.00 or MECH 4512 3.00	Make-up Course(s)
1	Passed	Passed	Not applicable. Degree requirements already satisfied.
2	Not taken or failed	Passed	Complete minimum 3.00 additional credits from: MECH 4201 3.00, MECH 4202 3.00, MECH 4203 3.00, MECH 4301 3.00, MECH 4510 3.00, MECH 4511 3.00, MECH 4512 3.00, ENG 4650 3.00 MECH 4403 3.00
3	Passed	Not taken or failed	Complete minimum 3.00 additional credits from: MECH 4201 3.00, MECH 4202 3.00, MECH 4203 3.00, MECH 4301 3.00, MECH 4510 3.00, MECH 4511 3.00, MECH 4512 3.00, ENG 4650 3.00 MECH 4403 3.00
4	Not taken or failed	Not taken or failed	Complete minimum 6.00 additional credits from: MECH 4201 3.00, MECH 4202 3.00, MECH 4203 3.00, MECH 4301 3.00, MECH 4510 3.00, MECH 4511 3.00, MECH 4512 3.00, ENG 4650 3.00, MECH 4403 3.00, ESSE 3380 4.00, ESSE 4380 4.00

If you failed a course, you can only replace the grade in your GPA by repeating the same course (see Course Repeat Policy).

Technical Electives:

COURSE	RATIONALE	2026- 2027 OFFERINGS	PREREQUISITES
LE/ESSE3380 4.00 Introduction to Mechatronics	Provides students with greater course selection and opportunities to learn information relevant to the field of Mechatronics.	Winter 2027	LE/TRON 2000 4.00 or LE/MECH 2401 3.00; SC/PHYS3050 3.00 or LE/EECS 3505 3.00.
LE/ESSE4380 4.00 Mechatronic Systems and Design	Provides students with greater course selection and opportunities to learn information relevant to the field of Mechatronics.	Fall 2026	LE/ESSE 3380 4.00; LE/EECS 3505 3.00 or SC/PHYS 3150 3.00. LE/ESSE 3380 prerequisite requirement will not be enforced in FW26-27

Technical Electives

Term	Course Code	Course Title	Prerequisites
Fall	LE/MECH 4201 3.00	Transport Phenomena	Prerequisites: LE/MECH 3201 3.00; LE/MECH 3203 3.00
Fall	LE/MECH 4301 3.00	Introduction to Composite Materials	Prerequisites: SC/MATH 1025 3.00; LE/MECH 3502 3.00.
Fall	LE/ESSE 4380	Mechatronics System and Design	Prerequisites: LE/ESSE 3380 4.00; LE/EECS 3505 3.00 or SC/PHYS 3150 3.00. LE/ESSE 3380 prerequisite requirement will NOT be enforced in FW26-27
~~*N/A*~~	~~*LE/MECH 4403 3.00*~~	~~*Artificial Intelligence and Generative Design for Mechanical Systems*~~	~~*Prerequisites: LE/MECH 3401 3.00 and LE/EECS 1021 3.00*~~
Winter	LE/MECH 4202 3.00	Aerodynamics	Prerequisites: LE/MECH 4402 4.00
Winter	LE/MECH 4203 3.00	Energy Conversion and Storage	Prerequisites: LE/MECH 3201 3.00; LE/MECH 3203 3.00
Winter	LE/MECH 4512 3.00	Principles of Bioengineering	Prerequisites: 21.00 3000-level science or engineering credits including LE/MECH 3503 3.00
Winter	LE/ENG 4650 3.00	Feedback Control Systems	Prerequisites: LE/ENG 4550 3.00
Winter	LE/ESSE 3380 4.00	Fundamentals of Mechatronics	Corequisites: LE/MECH 3302 3.00 Cross-listed: LE/TRON 3001 4.00 Prerequisites: LE/TRON 2000 4.00 or LE/MECH 2401 3.00; SC/PHYS3050 3.00 or LE/EECS 3505 3.00
~~*NA*~~	~~*LE/MECH 4510*~~	~~*Advanced Mechanical Technologies*~~	~~*Prerequisites: SC/MATH 2015 3.00, LE/MECH 2202 3.00, and LE/MECH 3503 3.00*~~