BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING - Honors College **Catalogue**

Student: **Date:** **2023 - 2024**

netID: **Advisor:**

Year 1

Semester 1	Cr	Status	Semester 2	Cr	Status
MA: MATH 1234 - Calculus I*	4		MA: MATH 1248 - Calculus II* *MATH 1234*	4	
ENGR 1020 - Graphical Communication	2		N2, QD: PHYS 1500 - Physics for Engineers I *MATH 1234*	4	
N2, QD: CHEM 1400 - General Chemistry 1	4		PHYS 1510 - Physics Problem Solving I [Optional]	[1]	
Catamount Core (WIL1): HCOL 1000 - FY Writing Seminar	3		ME 1010 - First-Year Design Experience	2	
Catamount Core	3		QD: CS 1210 - Computer Programming I	3	
CEMS 1500 - CEMS First Year Seminar [Optional]	[1]		HCOL 1500 - FY Research Presentation Sem	3	
			ME 1310 - Intro to Robotics and Coding [Optional]	[1]	
Total credits	*16-17*		*Total credits*	*16-18*	

Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
CEE 1100 - Statics* *MATH 1248; PHYS 1500*	3		ME 1120 - Dynamics *CEE 1100; MATH 2248*	3	
MA: MATH 2248 - Calculus III *MATH 1248*	4		ME 1140 - Mechanics of Solids *CEE 1100*	3	
ME 1210 - Thermodynamics* *MATH 1248; PHYS 1500; CHEM 1400*	3		MA: MATH 2522 - Applied Linear Algebra *MATH 1248* **OR** MA: MATH 2544 - Linear Algebra *MATH 1248; Pre/Coreq: MATH 2248*	3	
N1, QD: PHYS 1550 - Physics for Engineers II *PHYS 1500; MATH 1248; Coreq: MATH 2248*	3		MATH 3201 - Adv Engineering Mathematics *MATH 2248; Coreq: MATH 2522 or MATH 2544*	3	
PHYS 1560 - Physics Problem Solving II [Optional]	[1]		SU: ME 1220 - Applied Thermodynamics *ME 1210*	3	
ME 1020 - Engineering Shop Experience *ENGR 1020*	1		ME 1510 - Computational Mech Engr Lab *CEE 1100; Coreq: ME 1140*	1	
HCOL 2000 - Sophomore Seminar	3		HCOL 2000 - Sophomore Seminar	3	
Total credits	*17-18*		*Total credits*	*19*	

Year 3

Semester 1	Cr	Status	Semester 2	Cr	Status
ME 2230 - Fluid Mechanics *ME 1120; ME 1140; ME 1210; MATH 3201*	3		ME 2240 - Heat Transfer *ME 2230*	3	
ME 2120 - System Dynamics *ME 1120; Pre/Coreq: MATH 2522 or MATH 2544*	3		ME 2310 - Design of Elements *ME 1140*	3	
ME 2231 - Thermo-Fluid Lab *ME 1120; ME 1140; ME 1210; MATH 3201; Pre/Coreq: ME 2230* **OR** ME 2111 - Materials and Mechanics Lab *ME 1140; Pre/Coreq: ME 2110*	2		ME 2231 - Thermo-Fluid Lab *ME 1120; ME 1140; ME 1210; MATH 3201; Pre/Coreq: ME 2230* **OR** ME 2111 - Materials and Mechanics Lab *ME 1140; Pre/Coreq: ME 2110*	2	
ME 2110 - Materials Engineering *ME 1140*	3		QD: STAT 2430 - Statistics for Engineering *MATH 1234*	3	
EE 2145 - Electrical Engr Concepts *MATH 1248*	4		EE 2845 - Digital Control w/ Embedded Sys *EE 2145; CS 1210*	4	
CEMS 2010 - HCOL Research Experience	1		CEMS 2020 - Research Thesis Proposal	1	
Total credits	*16*		*Total credits*	*16*	

Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
ME 4010 - Capstone Design I	3		ME 4020 - Capstone Design II *ME 4010*	3	
Mechanical Engineering Elective	3		Mechanical Engineering Elective	3	
Mechanical Engineering Elective	3		Mechanical Engineering Elective	3	
Technical Elective (Honors Thesis)	3		Technical Elective (Honors Thesis)	3	
Catamount Core	3		Catamount Core	3	
Total credits	*15*		*Total credits*	*15*	

Minimum Total Credits Required for Degree: 128

This document is an advising tool and should be used in combination with a student's degree audit, as well as the published Catalogue for 2023-2024 found at http://catalogue.uvm.edu/

Prerequisite courses are listed below the course name in italics. Prerequisites listed are only for courses, as relevant to your specific degree program, and may have other registration restrictions. Please refer to the catalogue.

* Grade of C- or higher required

Mechanical Engineering Elective: All 3 credit 3000-level ME courses (except ME 3994, ME 3995 and ME 3899). All 3 credit 5000-level ME courses.

Technical Elective: All 2000-level (or higher) courses in BME, CEE, EE, EMGT, ENGR, ME, CS, CSYS, MATH, ASTR, BIOC, BIOL, CHEM, GEOL, MMG & PHYS; STAT 2510 or higher.

Catamount Core: Students may take courses that fulfill more than one Catamount Core requirement, but they must still take at least 40 unique credits of courses that have been approved to fulfill Catamount Core requirements.

Students are encouraged to overlap Catamount Core requirements with their PLHC required courses (HCOL 1500 and both HCOL 2000 courses)