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

Catalogue

Student: netID:

Date:

2019-2020

Advisor:

Year 1					
Semester 1	Cr	Status	Semester 2	Cr	Status
ENGR 002 - Graphical Communication	2		CS 020 - Programming for Engineers	3	
CHEM 031 - General Chemistry I	4		PHYS 031 - Physics for Engineers I	4	
HCOL 085 - Pursuit of Knowledge <sup>1</sup>	3		PHYS 030 - Problem Solving Session I [opt]	[1]	
MATH 021 - Calculus I	4		MATH 022 - Calculus II	4	
ENGR 050 - First Year Engr Seminar <sup>2</sup> [opt]	[1]		ME 001 - First Year Design Experience <sup>2</sup>	2	
General Education Elective <sup>3</sup>	3		ME 003 - Intro. to Robotics	1	
			HCOL 086 - First Yr Sem. (Diversity 1/2) <sup>3</sup>	3	
Total credits	16-17		Total credits	17-18	

## Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
CE 001 - Statics	3		ME 012 - Dynamics	3	
ME 040 - Thermodynamics	3		ME 042 - Applied Thermodynamics (SU)	3	
MATH 121 - Calculus III	4		MATH 271 - Appl Math for Engr & Sci	3	
PHYS 125 - Physics for Engineers II	3		ME 014 - Mechanics of Solids	3	
PHYS 123 - Problem Solving Session II [opt]	[1]		ME 083 - Computational Mech. Engr. Lab	1	
ME 081 - Mech. Engr. Shop Experience	1		HCOL 186 - Soph Sem.	3	
HCOL 185 - Soph Sem. (Diversity 1) <sup>3</sup>	3				
Total credits	17-18		Total credits	16	

## Year 3

Semester 1	Cr	Status	Semester 2	Cr	Status
ME 111 - System Dynamics	3		ME 144 - Heat Transfer	3	
ME 143 - Fluid Mechanics	3		ME 171 - Design of Elements	3	
ME 101 - Materials Engineering	3		STAT 143 - Statistics for Engineers	3	
EE 100 - Electrical Engr. Concepts I	4		EE 101 - Digital Control w/ Embedded Systems	4	
ME 123 - Thermo-Fluid Lab	2		ME 124 - Materials and Mechanics Lab	2	
MATH 124 - Linear Algebra or	3		CEMS 101 - HCOL Research Exp.	1	
MATH 122 - Applied Linear Algebra					
Total credits	18		Total credits	16	

## Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
ME 185 - Capstone Design I	3		ME 186 - Senior Design Project II	3	
Mechanical Engineering Elective <sup>4</sup>	3		Mechanical Engineering Elective <sup>4</sup>	3	
Mechanical Engineering Elective <sup>4</sup>	3		Mechanical Engineering Elective <sup>4</sup>	3	
ME 193 - Honors Thesis	3		ME 194 - Honors Thesis	3	
General Education Elective <sup>3</sup>	3				
Total credits	15		Total credits	15	

Minimum Total Credits Required for Degree: 126

1. Foundational Writing and Information Literacy (FWIL) is a University requirement. Students must take either ENGS 001 or HCOL 085 (only for students enrolled in the Honors College). Students transferring from the College of Arts and Sciences can use a TAP class to fulfill this requirement.

2. ME 001 is a degree requirement designed for first-year students. Internal and external transfer students may substitute 100level or higher engineering (BME, CE, EE, ENGR, ME) credits for this requirement.

3. Required General Education (GenEd) Electives: 9 credits of approved GenEd electives. Students must also take one threecredit D1 course and a second three-credit D1 or D2 course, per University Diversity Requirement.

4. ME Electives: <u>ME 161</u> and all 200-level (or above) ME courses.

5. Technical Electives: All 100-level (or higher) courses in BME, CE, EE, ENGR, ME, CS, CSYS, MATH, ASTR, BIOC, BIOL, CHEM, GEOL, MMG & PHYS; STAT 151 or higher; CS 021.

N.B. The University's Sustainability (SU) and Quantitative Reasoning (QR) requirements are built into the Environmental Engineering curriculum.

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 2019-2020 found at http://catalogue.uvm.edu/