

**BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING**

Catalogue

2022-2023

Student: \_\_\_\_\_

Date: \_\_\_\_\_

netID: \_\_\_\_\_

Advisor: \_\_\_\_\_

**Year 1**

Semester 1	Cr	Status	Semester 2	Cr	Status
ENGR 002 - Graphical Communication	2		QR: CS 021 - Computer Programming I	3	
CHEM 031 - General Chemistry I	4		PHYS 031 - Physics for Engineers I	4	
FWIL (ENGS 001, TAP, HCOL 085) <sup>1</sup>	3		PHYS 030 - Problem Solving Session I [Optional]	[1]	
QR: MATH 021 - Calculus I	4		QR: MATH 022 - Calculus II	4	
General Education Elective <sup>1</sup>	3		ME 001 - First Year Design Experience	2	
CEMS 050 - CEMS First Year Seminar [Optional]	[1]		ME 003 - Intro. to Robotics [Optional]	[1]	
			Diversity 1 or 2 <sup>1</sup> (D1/D2)	3	
<i>Total credits</i>	<i>16-17</i>		<i>Total credits</i>	<i>16-18</i>	

**Year 2**

Semester 1	Cr	Status	Semester 2	Cr	Status
CE 001 - Statics	3		ME 012 - Dynamics	3	
ME 040 - Thermodynamics	3		SU: ME 042 - Applied Thermodynamics	3	
QR: MATH 121 - Calculus III	4		QR: MATH 271 - Adv Engineering Mathematics	3	
PHYS 125 - Physics for Engineers II	3		ME 014 - Mechanics of Solids	3	
PHYS 123 - Problem Solving Session II [Optional]	[1]		QR: MATH 122 or 124 - (Applied) Linear Algebra	3	
ME 081 - Mech. Engr. Shop Experience	1		ME 083 - Computational Mech. Engr. Lab	1	
Diversity 1 <sup>1</sup> (D1)	3				
<i>Total credits</i>	<i>17-18</i>		<i>Total credits</i>	<i>16</i>	

**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		QR: 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 <b>OR</b>			ME 123 - Thermo-Fluid Lab <b>OR</b>		
ME 124 - Materials and Mechanics Lab	2		ME 124 - Materials and Mechanics Lab	2	
<i>Total credits</i>	<i>15</i>		<i>Total credits</i>	<i>15</i>	

**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>2</sup>	3		Mechanical Engineering Elective <sup>2</sup>	3	
Mechanical Engineering Elective <sup>2</sup>	3		Mechanical Engineering Elective <sup>2</sup>	3	
Technical Elective <sup>3</sup>	3		Technical Elective <sup>3</sup>	3	
General Education Elective <sup>1</sup> (Social Science)	3		General Education Elective <sup>1</sup> (Humanities)	3	
<i>Total credits</i>	<i>15</i>		<i>Total credits</i>	<i>15</i>	

**Minimum Total Credits Required for Degree: 125**

1. University Requirements & General Education Electives: University Requirements include Diversity (D1/D2), Sustainability (SU), Quantitative Reasoning (QR) and Foundational Writing & Information Literacy (FWIL). At least 3 credits General Education Electives must be from the Humanities and at least 3 credits must be from the Social Sciences. Refer to the CEMS Program Electives for approved Humanities and Social Science elective courses (<https://www.uvm.edu/cems/cems-program-electives>).
2. ME Electives: [ME 161](#) and all 200-level (or above) ME courses except ME 297, 298, and 299
3. 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 020](#).

**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 2022-2023 found at <http://catalogue.uvm.edu/>**