# BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Catalogue

Student:	Date:	2015-201
ID#•	Advisor:	

#### Year 1

Semester 1	Cr	Status	Semester 2	Cr	Status
ENGR 002 - Grphcl. Comm. (SolidWorks)	2		CS 020 - Programming for Engineers <sup>1</sup>	3	
CHEM 031 - General Chemistry I <sup>1</sup>	4		PHYS 031 - Physics for Engineers I <sup>1</sup>	4	
ENGS 001 - Written Expression	3		PHYS 030 - Prob. Solv. Session I [opt]	[1]	
MATH 021 - Calculus I <sup>1</sup>	4		MATH 022 - Calculus II <sup>1</sup>	4	
General Education Elective <sup>2</sup>	3		ME 001 - First Year Design Experience <sup>5</sup>	2	
			General Education Elective <sup>2</sup>	3	
Total credits	16		Total credits	16/17	

1. Students must complete the Pre-Engineering Technical (PET) courses with C- or higher by the end of the first year of study. Students not completing the PET Requirement during their first year, will be put on NOTICE and must successfully complete the courses by the end of the fall term of their Sophomore year in order to take additional engineering courses. Student must have a cumulative GPA of at least 2.3 before taking sophomore level engineering courses.

#### 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	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 - Prob. Solv. Session II [opt]	[1]		General Education Elective <sup>2</sup>	3	
ME 081 - Mech. Engr. Shop Experience	1		ME 083 - Computational Mech. Engr. Lab	1	
Total credits	14/15		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	
MATH 124 - Linear Algebra OR	3			4	
MATH 122 - Applied Linear Algebra	3		EE 101 - Electrical Engr. Concepts II	-	
EE 100 - Electrical Engr. Concepts I	4		ME 124 - Materials and Mechanics Lab	2	
ME 123 - Thermo-Fluid Lab	2				
Total credits	18		Total credits	15	

## Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
ME 161 - Manufacturing Processes	3		ME 186 - Senior Design Project II	3	
ME 185 - Capstone Design I	3		Mechanical Engineering Elective <sup>3</sup>	3	
Mechanical Engineering Elective <sup>3</sup>	3		Mechanical Engineering Elective <sup>3</sup>	3	
ME Technical Elective <sup>4</sup>	3		ME Technical Elective <sup>4</sup>	3	
General Education Elective <sup>2</sup>	3		General Education Elective <sup>2</sup>	3	
Total credits	15		Total credits	14	

- 2. Required General Education Electives (GenEd): fifteen credits of approved GenEd electives, including three credits of D1 and three credits of D1 or D2.
- 3. ME Electives: All 200-level (or higher) ME courses.
- 4.ME Technical Electives: All 100-level (or higher) courses in ENGR, EE, ME, CS and MATH; <u>STAT 151</u> or higher; <u>CS 021</u>; or natural sciences with approval of advisor.
- 5. Transfer students without applicable transfer credit have the option of either taking <u>ME 001</u> or replacing the credits with engineering course work at the 100-level or higher.