

Bachelor of Science in Mechanical Engineering (BSME) Degree
Department of Engineering



Effective date: **Fall 2007**

All engineering & technical elective courses must have a combined minimum GPA of 2.0.

Course sequencing follows the academic year, and assumes beginning the program in the fall semester.

For more information visit <http://www.engr.ipfw.edu>

P = Prerequisite, C = Co-requisite, D = Design Credits

1 st semester 16 credits	MA 165 (4) P: MA 154 or MA 159 (C or better), or placement <i>Analytical Geometry & Calculus I</i>	CHM 115 (4) P: CHM 111 or 1 yr. H.S. C: MA 153 or MA 151 <i>Chemistry</i>	ENGR 101 (1) <i>Introduction to Engineering</i>	ENGR 120 (2) P: MA 153 Area V <i>Graphical Comm. & Spac. Anal.</i>	ENGR 121 (2) P: MA 154 or MA 159 (C or better), or placement C: ENGR 120 <i>Computer Tools for Engineers</i>	ENG W131 (3) P: ENG W130 (C or better) or placement <i>Elementary Composition I</i>
2 nd semester 15 credits	MA 166 (4) P: MA 165 (C or better) <i>Analytical Geometry & Calculus II</i>	PHYS 152 (5) C: MA 166 <i>Mechanics</i>	ENGR 199 (3) P: ENGR 101 C: ENGR 121, PHYS 152 D: 2 <i>Introduction to Design</i>	COM 114 (3) C or better <i>Fundamentals of Speech</i>		
3 rd semester 17 credits	MA 261 (4) P: MA 166 (C or better) <i>Multivariate Calculus</i>	MA 351 (3) P: MA 166 (C or better) <i>Elementary Linear Algebra</i>	PHYS 251 (5) P: PHYS 152 C: MA 261 <i>Heat, Electricity, & Optics</i>	ME 250 (3) P: PHYS 152 C: MA 261 <i>Statics</i>	ENGR 221 (2) P: ENGR 101, ENGR 121 <i>C & C++ Prog for Engineers</i>	
4 th semester 15 credits	MA 363 (3) P: MA 351, MA261 <i>Differential Equations</i>	ME 251 (3) P: ME 250 C: MA 363 <i>Dynamics</i>	ME 200 (3) C: MA 261 D: 0.5 <i>Thermodynamics I</i>	ME 252 (3) P: ME 250 D: 0.5 <i>Strength of Materials</i>	ECE 201 (3) C: MA 261 <i>Linear Circuit Analysis I</i>	
5 th semester 17 credits	ME 318 (3) P: ME 200, ME 251, MA 363 D: 0.5 <i>Fluid Mechanics</i>	ME 361 (3) P: ME 251, MA363 D: 1 <i>Kinematics & Dynamics Mach</i>	ME 303 (2) P: CHM 115, PHYS 251 C: ME 252 <i>Materials Science and Engr</i>	ME 387 (3) P: ENGR 199, ENGR221, ECE 201, ME251 ME 388 (1) C: ME 387 D: 1.5 <i>Elec & Sys Engr Robot and Lab</i>	ME 293 (2) P: COM 114, ENG W131, ECE 201 <i>Measurement & Instrumentation</i>	General Education Elective (3) Area IV
6 th semester 14 credits	ME 301 (3) P: ME 200 D: 0.5 <i>Thermodynamics II</i>	ME 304 (1) P: ME 282, ME 303 <i>Mechanics & Materials Lab</i>	ME 319 (1) P: ME 282, ME 318 D: 0.5 <i>Fluid Mechanics Lab</i>	ME 321 (3) C: ME 318 D: 1 <i>Heat Transfer</i>	ME 369 (3) P: ME 361, ME 252, ME 303 C: ME 304 D: 1.5 <i>Machine Design</i>	ECON E201 (3) Area III
7 th semester 17 credits	ME 487(3) or ENGR 410 (3) P: ME 321, ME 369 C: ME 322 D:2.5 <i>Senior Design I</i>	ME 322 (1) P: ME 293, ME 321 C: ME 319 <i>Heat Transfer Lab</i>	Technical Elective (3) D: 1	Technical Elective (3) D: 1	ME 371 (4) P: MA363, ME251, ME387, ME388 D: 1 <i>System Dynamics & Intro Control</i>	General Education Elective (3) Area III
8 th semester 15 credits	ME 488 (3) or ENGR 411 (3) P: ME 487 or ENGR 410 D: 3 <i>Senior Design II</i>	Technical Elective (3) D: 1	Technical Elective (3)	General Education Elective (3) Area IV	General Education Elective (3) Area VI	