

Bachelor of Science in Mechanical Engineering



Effective: **Fall 2014**

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.

The math and physics departments require a C or better in some pre-requisite courses. Please consult the bulletin.

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

P = Pre-requisite, C = Co-requisite, DC = Design Content

1 st semester 15 credits	MA 165 (4) P: MA 154 or 159 with C- or better or placement Analytical Geo. & Calculus I	CHM 115 (4) P: CHM 111 or 1 yr. H.S. C: MA 154 Chemistry	ENGR 127 (4) C: MA 154 Fundamental of Engineering I	ENG W131 (3) P: ENG W129 with C or better or placement Elementary Composition I		
2 nd semester 18 credits	MA 166 (4) P: MA 165 with C- or better Analytical Geo. & Calculus II	PHYS 152 (5) C: MA 166 Mechanics	ENGR 128 (4) P: ENGR 127 C: MA 165, ENG W131, COM 114 Fundamental of Engineering II	ME 160 (2) P: MA 165 C: ENGR 128 Solid Modeling	COM 114 (3) Fundamentals of Speech	
3 rd semester 17 credits	MA 261 (4) P: MA 166 with C- or better Multivariate Calculus	MA 351 (3) P: MA 166 with C- or better Elementary Linear Algebra	PHYS 251 (5) P: PHYS 152 with C or better C: MA 261 Heat, Electricity, & Optics	ME 250 (3) P: PHYS 152 C: MA 261 Statics	CS 227 (2) or ENGR 221 (2) P: ENGR 128 C & C++ Prog for Engineers	
4 th semester 15 credits	MA 363 (3) P: MA 261 with C- or better C: MA 351 Differential Equations	ME 251 (3) P: ME 250 C: MA 363 Dynamics	ME 200 (3) DC P: CHM 115 C: MA 261 Thermodynamics I	ME 252 (3) DC P: ME 250 Strength of Materials	ECE 201 (3) C: MA 261 Linear Circuit Analysis I	
5 th semester 13 credits	ME 318 (3) DC P: ME 200, ME 251, MA 363 Fluid Mechanics	ME 361 (3) DC P: ME 160, ME 251, MA 363 Kinematics & Dynamics Mach	ME 303 (2) P: CHM 115, PHYS 251 C: ME 252 Materials Science and Engr	ME 331 (3) DC P: ME 251, MA 363 System Dynamics	ME 293 (2) P: COM 114, ENG W131, ECE 201 Measurement & Instrument	
6 th semester 14 credits	ME 301 (3) DC P: ME 200 Thermodynamics II	ME 304 (1) P: ME 293, ME 303 Mechanics & Materials Lab	ME 319 (1) DC P: ME 293, ME 318 Fluid Mechanics Lab	ME 321 (3) DC C: ME 318 Heat Transfer	ME 369 (3) DC P: ME 361, ME 252, ME 303 C: ME 304 Design of Machine Elements	ME 333 (3) DC P: ME 331 Automatic Control Systems
7 th semester 13 credits	ME 487(3) DC or ENGR 410 (3) DC P: ME 321, ME 369 C: ME 322 Senior Design I	ME 322 (1) P: ME 293, ME 321 C: ME 319 Heat Transfer Lab	Technical Elective (3) Group 1	Technical Elective (3) Group 1	General Education Elective (3) Category B.5	
8 th semester 15 credits	ME 488 (3) DC or ENGR 411 (3) DC P: ME 487 or ENGR 410 Senior Design II	Technical Elective (3) Group 1	Technical Elective (3) Group 1 or 2	General Education Elective (3) Category B.6	General Education Elective (3) Category B.7	

Revised March 2014

Total credit hours 120