

## Bachelor of Science in Electrical Engineering (BSEE) Degree Department of Engineering



Effective: **Fall 2010**

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

1 <sup>st</sup> semester 16 credits	<b>MA 165 (4)</b> P: MA 154 or MA 159 (C or better) or placement  Analytc Geomtry&Calc I	<b>CHM 115 (4)</b> P: CHM 111 or 1 yr. H.S. C: MA 153 or MA 159  General Chemistry	<b>ENGR 101 (1)</b>  Intro to Engineering	<b>ENGR 120 (2)</b> P: MA 153  Area V Graph Com & Spatl Anly	<b>ENGR 121 (2)</b> P: MA 154 or MA 159 (C or better) or placement C: ENGR 120  Cmpr Tools for Engr	<b>ENG W131 (3)</b> P: ENG W129 (C or better) or placement  Elem Composition I
2 <sup>nd</sup> semester 15 credits	<b>MA 166 (4)</b> P: MA 165 (C or better)  Analytc Geomtry&Calc II	<b>PHYS 152 (5)</b> C: MA 166  Mechanics	<b>ENGR 199 (3)</b> P: ENGR 101 C: ENGR 121,PHYS 152 DC  Intro to Engr Design	<b>COM 114 (3)</b> (C or better)  Fundament Of Speech		
3 <sup>rd</sup> semester 18 credits	<b>MA 261 (4)</b> P: MA 166 (C or better)  Multivariate Calculus	<b>MA 351 (3)</b> P: MA 166 (C or better)  Elem Linear Algebra	<b>PHYS 251 (5)</b> P: PHYS 152 C: MA 261  Heat, Electricity & Optics	<b>ECE 201 (3)</b> C: MA 261  Linear Circuit Anly I	<b>CS 227 or ENGR 221 (2)</b> P: ENGR 101, ENGR 121  C & C++ Prog for Engr	<b>CS 228 or ENGR 222 (1)</b> C: ENGR 221 or CS 227  Object Orient Program
4 <sup>th</sup> semester 15 credits	<b>MA 363 (3)</b> P: MA 261 and MA 351  Differential Equations	<b>ECE 202 (3)</b> P: ECE 201 C: MA 363 DC  Linear Circuit Anly II	<b>ME 253 (3)</b> P: MA 261, PHYS 152  Statics/Dynamics	<b>ECE 270 (4)</b> P: ENGR 199 DC  Intro Digitt Sys Desgn	<b>ECE 293 (2)</b> P: ECE 201, COM 114, ENG W 131  Measure & Instrumentn	
5 <sup>th</sup> semester 17 credits	<b>MA 275 (3)</b> P: MA 261  Intermed Discrete Math	<b>ECE 301 (3)</b> P: ECE 202  Signals And Systems	<b>ECE 208 (1)</b> P: ECE 293 C: ECE 255 DC  Electron Dev & Des Lab	<b>ECE 387 (3)</b> P: ECE 201, ENGR 199, ENGR 221 C: ME 253 DC Elec & Sys Engr Robotc  <b>ECE 388 (1)</b> C: ECE 387 DC Elec&Sys Eng Robot Lab	<b>ECE 255 (3)</b> P: ECE 201 DC  Intr Electron Anly Des	General Education Elective (3)  Area III
6 <sup>th</sup> semester 16 credits	<b>ECE 302 (3)</b> P: MA 363 C: ECE 301  Probabilistic Methods	<b>ECE 311 (3)</b> P: MA 363, PHYS 251  Elec & Magnetic Fields	<b>ECE 362 (4)</b> P: ECE 270, ECE 293 C: ECE 388 DC  Micropro Sys & Infrac	<b>ECE 333 (3)</b> P: ECE 301, ME 253 DC  Fdbk Sys Anly & Design	<b>ECON E201 (3)</b>  Area III  Intro To Microeconomics	
7 <sup>th</sup> semester 15 credits	<b>ECE 405 (3) or ENGR 410 (3)</b> P: ECE 301, ECE 208, ECE 362 (and permission of the senior design advisor) DC  Sr Engineering Des I	<b>ECE 436 (3)</b> P: ECE 301 DC  Digital Signal Process	<b>ECE 428 (3)</b> P: ECE 301, ECE 302 DC  Modern Commun Syst	<b>Technical Elective (3)</b>	General Education Elective (3)  Area IV	
8 <sup>th</sup> semester 15 credits	<b>ECE 406 (3) or ENGR 411 (3)</b> P: ECE 405 or ENGR 410 DC  Sr Engineering Des II	<b>Electrical Engineering Elective (3)</b> DC	<b>Technical Elective (3)</b> DC	General Education Elective (3)  Area IV	General Education Elective (3)  Area VI	

Revised February 2010

Total Credit Hours: 127