

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



Effective date: **Spring 2012**

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://ipfw.edu/engineering/>

P = Prerequisite, C = Corequisite, 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	<b>CHM 115 (4)</b> P: CHM 111 or 1 yr. H.S. C: MA 154	<b>ENGR 101 (1)</b>  Area V	<b>ENGR 120 (2)</b> P: MA 153  Area V	<b>ENGR 121 (2)</b> P: MA 154 or MA 159 (C or better), or placement C: ENGR 120	<b>ENG W131 (3)</b> P: ENG W129 (C or better) or placement
	Anlytc Geomtry&Calc I	General Chemistry	Intro To Engineering	Graph Com & Spatl Anly	Cmptr Tools For Engr	Elem Composition I
2 <sup>nd</sup> semester 15 credits	<b>MA 166 (4)</b> P: MA 165 (C or better)	<b>PHYS 152 (5)</b> C: MA 166	<b>ENGR 199 (3)</b> P: ENGR 101 C: ENGR 121,PHYS 152 DC	<b>COM 114 (3)</b> C or better		
	Anlytc Geomtry&Calc II	Mechanics	Intro To Engr Design	Fundament Of Speech		
3 <sup>rd</sup> semester 18credits	<b>MA 261 (4)</b> P: MA 166 (C or better)	<b>MA 351 (3)</b> P: MA 166 (C or better)	<b>PHYS 251 (5)</b> P: PHYS 152(C or better) C: MA 261	<b>ECE 201 (3)</b> C: MA 261	<b>CS 227 or ENGR 221 (2)</b> P: ENGR 101, ENGR 121	<b>CS 228 or ENGR 222 (1)</b> C: ENGR 221
	Multivariate Calculus	Elem Linear Algebra	Heat Electricity & Optics	Linear Circuit Anly I	C & C++ Prog for Engr	Object Orient Program
4 <sup>th</sup> semester 15 credits	<b>MA 363 (3)</b> P: MA 261 (C- or better ) C: MA 351 (C- or better if taken before)	<b>ECE 202 (3)</b> P: ECE 201 C: MA 363 DC	<b>ECE 255 (3)</b> P: ECE 201  DC	<b>ECE 270 (4)</b> P: ENGR 199  DC	<b>ECE 293 (2)</b> P: ECE 201, COM 114, ENG W 131	
	Differential Equations	Linear Circuit Anly II	Intr Electron Anly Des	Intro Digitl Sys Desgn	Measure & Instrumentn	
5 <sup>th</sup> semester 16 credits	<b>MA 275 (3)</b> P: MA 261	<b>ECE 208 (1)</b> P: ECE 293 C: ECE 255  DC	<b>ECE 301 (3)</b> P: ECE 202	<b>ECE 324 (3)</b> P: PHYS 251, ECE 255 C: ECE 208  DC	<b>ME 253 (3)</b> P: MA 261, PHYS 152	<b>General Education Elective (3)</b>  Area III
	Intermed Discrete Math	Electron Dev & Des Lab	Signals And Systems	Intro Energy Sys	Statics/Dynamics	
6 <sup>th</sup> semester 16 credits	<b>ECE 302 (3)</b> P: MA 363 C: ECE 301	<b>ECE 311 (3)</b> P: MA 363, PHYS 251	<b>ECE 333 (3)</b> P: ECE 301, ME 253  DC	<b>ECE 362 (4)</b> P: ECE 270, ECE 293 CS 227 or ENGR 221  DC	<b>ECON E201 (3)</b> P: MA 153 (C- or better)  OR <b>ECON E200 (3)</b>	
	Probabilistic Methods	Elec & Magnetic Fields	Automatic Control Sys	Micropro Sys & Intrafac	Area III	
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	<b>ECE 428 (3)</b> P: ECE 301, ECE 302  DC	<b>ECE 436 (3)</b> P: ECE 301  DC	<b>Technical Elective (3)</b>	<b>General Education Elective (3)</b>	
	Sr Engineering Des I	Modern Commun Syst	Digital Signal Process		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	<b>Electrical Engineering Elective (3)</b>  DC	<b>Technical Elective (3)</b>  DC	<b>General Education Elective (3)</b>	<b>General Education Elective (3)</b>	
	Sr Engineering Des II			Area IV	Area VI	