

**Bachelor of Science in Civil Engineering (BSCE) Degree
Department of Engineering**



Effective: **Spring 2015**

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.

Consult with the most recent bulletin at <http://bulletin.ipfw.edu>

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

P = Pre-requisite, C = Co-Requisite, GE = General Education with Categories A, B, and C, and Competencies 1-8.

1 st Semester 15 credits	MA 165 (4) P: MA 154 or MA 159 with C- or better or placement GE A3 <small>Analytical Geometry & Calculus I</small>	CHM 115 (4) P: CHM 111 or 1 yr. H.S. C: MA 154 GE B4 <small>General Chemistry</small>	ENGR 127 (4) C: MA 154 Engineering Fundamentals I	ENG W131 (3) P: ENG W129 with C or better or placement GE A1 <small>Elementary Composition</small>		
2 nd Semester 16 credits	MA 166 (4) P: MA 165 with C- or better GE B4 <small>Analytical Geometry & Calculus II</small>	PHYS 152 (5) C: MA 166 GE B4 <small>Mechanics</small>	ENGR 128 (4) P: ENGR 127 C: MA 165, COM 114 OR ENG W131 Engineering Fundamentals II	COM 114 (3) GE A2 <small>Fund of Speech Communication</small>		
3 rd Semester 18 credits	MA 261 (4) P: MA 166 with C- or better <small>Multivariate Calculus</small>	MA 351 (3) P: MA 166 with C- or better <small>Elementary Linear Algebra</small>	PHYS 251 (5) P: PHYS 152 with C or better) C: MA 261 <small>Heat Electricity and Optics</small>	CE 250 (3) P: PHYS 152 C: MA 261 <small>Statics</small>	CE 210 (3) P: MA 165 ENGR 120 <small>Introduction to Geomatics</small>	
4 th Semester 15 credits	MA 363 (3) P: MA 261 with C- or better C: MA 351 <small>Differential Equations</small>	CE 251 (3) P: CE 250 C: MA 363 <small>Dynamics</small>	CE 252 (3) P: CE 250 <small>Strength of Materials</small>	CE 315 (3) C: CE 252 <small>CE Materials</small>	General Education Elective (3) GE B5 <small>GE list (Table B5)</small>	
5 th Semester 16 credits	CE 318 (3) P: CE 251, and MA 363 <small>Fluid Mechanics</small>	CE 365 (3) P: CHM 115 GE B4 <small>Environmental Engineering</small>	CE 375 (3) P: CE 252 <small>Structural Analysis</small>	CE 316 (1) P: CE 315 <small>CE Materials Lab</small>	CE 330 (3) P : 128 C : CE 210 & junior standing <small>Construction Management</small>	General Education Elective (3) GE B6 <small>GE list (Table B6)</small>
6 th Semester 12 credits	CE 319 (1) P: CE 318 <small>Fluid Mechanics Lab</small>	CE 366 (1) P: CE 365 <small>Environmental Engineering Lab</small>	CE 478 (3) P: CE 375 CE 315	CE 345 (3) P: CE 210	CE 380 (3) P: CE 252 C: CE 318 & 381 <small>Soil Mechanics</small>	CE 381 (1) C: CE 380 <small>Soil Mechanics Lab</small>
7 th Semester 16 credits	CE 418 (3) P: CE 318 <small>Hydraulics Engineering</small>	STAT 511 (3) P: MA 166 with C- or higher <small>Statistical Methods</small>	CE 401 (1) C: Senior Standing <small>CE Profession and Practice</small>	CE 487 (3) P: Senior standing and advisor approval. GE C8 <small>CE Design Project</small>	CE 481 (3) P: CE 380 & 381 <small>Foundation Engineering</small>	Technical Elective (3)
8 th Semester 15 credits	Technical Elective (3)	Technical Elective (3)	Science Elective (3) GE B7 <small>GE list (Table B7)</small>	CE 488 (3) P: CE 487 <small>CE Design Project II</small> OR Technical Elective (3)	General Education Elective (3) GE A1-3, B4-7 <small>GE list (Table A1-B7)</small>	

Revised Fall 2014

Total credit hours: 133

Key: Math & Science Freshmen Engineering Civil Engineering Mechanical Engineering General Education