Bachelor of Science in Computer Engineering (BSCmpE) Degree  
Department of Electrical and Computer Engineering

Effective: Fall 2017

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

All courses being taken as General Education course must earn a grade of C- or better to qualify.

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.ipfw.edu/ece](http://www.ipfw.edu/ece)

Legends: GE – General Education, GE: All, B#, C# General Education Category, DC: Design Credit, P: Prerequisite, C: Co-requisite

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 154</td>
<td>Multivariate Calculus</td>
<td>2</td>
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<tr>
<td>PHYS 152</td>
<td>Mechanics</td>
<td>4</td>
<td></td>
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<tr>
<td>CHM 115</td>
<td>General Chemistry</td>
<td>4</td>
<td></td>
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<tr>
<td>ENGR 127</td>
<td>Engineering Fund I</td>
<td>4</td>
<td></td>
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<tr>
<td>ENG W131</td>
<td>Elementary Composition I</td>
<td>3</td>
<td></td>
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<tr>
<td>P: MA 154 or MA 159 (C- or better), or placement</td>
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<td>GE : A3</td>
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</table>

**1st semester** 15 credits

**2nd semester** 16 credits

**3rd semester** 15 credits

**4th semester** 14 credits

**5th semester** 16 credits

**6th semester** 13 credits

**7th semester** 17 credits

**8th semester** 15 credits

**9th semester** 13 credits

**10th semester** 13 credits

**11th semester** 13 credits

**12th semester** 13 credits

### 1st semester (15 credits)

- **MA 154 (4 credits)**: MA 154 or MA 159 (C- or better), or placement
- **CHM 115 (4 credits)**: CHM 111 or 1yr. H.S., MA 154
- **ENGR 127 (4 credits)**: C: MA 154
- **ENG W131 (3 credits)**: P: ENG W129 with C or better or placement

### 2nd semester (16 credits)

- **MA 166 (4 credits)**: MA 165 (C- or better)
- **PHYS 152 (5 credits)**: C: MA 166
- **ENGR 128 (4 credits)**: P: ENGR 127
- **COM 114 (3 credits)**: GE: A2

### 3rd semester (15 credits)

- **MA 261 (4 credits)**: MA 261
- **PHYS 251 (5 credits)**: C: MA 165
- **ECE 201 (3 credits)**: C: MA 261
- **ECE 270 (4 credits)**: C: ENGR 128

### 4th semester (14 credits)

- **MA 351 (3 credits)**: MA 166 (C- or better)
- **MA 363 (3 credits)**: P: MA 261 or MA 263 (C- or better), C: MA 351 (C- or better) or current enrollment in MA 351
- **ECE 203 (3 credits)**: P: ECE 201
- **ECE 207 (1 credit)**: P: ECE 201
- **CS 229 (4 credits)**: P: ENGR 128

### 5th semester (16 credits)

- **ECE 255 (3 credits)**: P: ECE 201
- **ECE 301 (3 credits)**: P: ECE 202
- **ECE 358 (3 credits)**: P: ECE 270, CS 229, ECE 368
- **ECE 362 (4 credits)**: P: ECE 270, ECE 367, CS 229
- **ECE 368 (3 credits)**: P: CS 229

### 6th semester (13 credits)

- **ECE 405 (3 credits)**: Senior Standing in the program and permission of the senior design project advisor
- **ECE 485 (4 credits)**: P: ECE 362
- **Group 1 or 2: Technical Elective (3 credits)**
- **Group 1 or 2: Technical Elective (4 credits)**

### 7th semester (17 credits)

- **ECE 406 (3 credits)**: P: ECE 405
- **ECE 437 (4 credits)**: P: ECE 362, ECE 358
- **Group 1: Technical Elective (3 credits)**
- **Group 1 or 2: Technical Elective (3 credits)**

### 8th semester (13 credits)

- **ECE 407 (3 credits)**: P: ECE 405
- **ECE 438 (4 credits)**: P: ECE 362, ECE 358
- **Group 1: Technical Elective (3 credits)**

### 9th semester (13 credits)

- **ECE 408 (3 credits)**: P: ECE 405
- **ECE 439 (4 credits)**: P: ECE 362, ECE 358
- **Group 1: Technical Elective (3 credits)**

### 10th semester (13 credits)

- **ECE 410 (3 credits)**: P: ECE 405
- **ECE 440 (4 credits)**: P: ECE 362, ECE 358
- **Group 1: Technical Elective (3 credits)**

### Total credit hours 120

* MA 175: P: MA 165 or MA 153 and CS 160; or MA 153 and EET 264 with a grade of C- or better in each course.
* MA 275: P: MA 261 or MA 263.