## Pre-Professional Program

### Freshman Fall
- **Chem 1210***: Principles of Chemistry 1 (CR: 4, SEM: FSpSu)
- **Chem 1215***: Principles of Chemistry 1 Lab (CR: 1, SEM: FSpSu)
- **Math 1210***: Calculus 1 (CR: 4, SEM: FSpSu)
- **Mae 1010***: Intro to Mech. Engr. (CR: 3, SEM: FSpSu)
- **General Education**: Breadth Course (BAI) (CR: 3, SEM: FSpSu)

**Total Credits**: 15

### Freshman Spring
- **Chem 1210***: Principles of Chemistry 1 (CR: 4, SEM: FSp)
- **Math 1210***: Calculus 1 (CR: 4, SEM: FSpSu)
- **Mae 1010***: Intro to Mech. Engr. (CR: 3, SEM: FSp)
- **General Education**: Breadth Course (BAI) (CR: 3, SEM: FSpSu)

**Total Credits**: 15

### Sophomore Fall
- **Engr 2010*** or **Engr 2020***: Inter. Writing or Prof. Comm. (CR: 3, SEM: FSpSu)
- **Engr 2010***: Statics (CR: 3, SEM: FSpSu)
- **Math 2210***: Multivariable Calculus (CR: 3, SEM: FSpSu)
- **Phys 2220***: Physics 2 (CR: 4, SEM: FSpSu)
- **Phys 2225***: Physics 2 Lab (CR: 1, SEM: FSpSu)

**Total Credits**: 17

### Sophomore Spring
- **Engr 2030***: Dynamics (CR: 3, SEM: FSpSu)
- **Engr 2140***: Mechanics of Materials (CR: 3, SEM: FSpSu)
- **Mae 2300***: Thermodynamics 1 (CR: 3, SEM: FSpSu)
- **Mae 2450***: Numerical Methods (CR: 3, SEM: FSpSu)
- **Mae 2220***: Linear Algebra & Diff. Eq. (CR: 4, SEM: FSpSu)

**Total Credits**: 16

## Professional Program

### Junior Fall
- **Mae 2160**: Material Science (CR: 3, SEM: FSp)
- **Mae 2165**: Material Science Lab (CR: 1, SEM: FSp)
- **Mae 3600**: Engr. Professionalism & Ethics (CR: 1, SEM: FSp)
- **Engr 3080**: Technical Communication (CR: 3, SEM: FSp)
- **Mae 3040**: Mechanics of Solids (CR: 3, SEM: F)
- **General Education**: Breadth Course (BHU) (CR: 3, SEM: FSpSu)
- **Mae 3420**: Fluid Mechanics (CR: 3, SEM: F)

**Total Credits**: 17

### Junior Spring
- **Mae 3340**: Instr. & Measurements (CR: 3, SEM: FSp)
- **Mae 3440**: Heat Transfer (CR: 3, SEM: F)
- **Mae 4300**: Machine Design (CR: 3, SEM: F)
- **General Education**: Breadth Course (BLS) (CR: 3, SEM: FSpSu)
- **General Education**: Breadth Course (BCA) (CR: 3, SEM: FSpSu)

**Total Credits**: 15

### Senior Fall
- **Mae 4400**: Fluids/Thermal Lab (CR: 2, SEM: FSp)
- **Mae 4800**: Capstone Design 1 (CR: 3, SEM: F)
- **General Education**: Breadth Course (BSS) (CR: 2, SEM: FSpSu)
- **General Education**: Breadth Course (BLS) (CR: 2, SEM: FSp)
- **General Education**: Breadth Course (BCA) (CR: 3, SEM: FSpSu)

**Total Credits**: 15

### Senior Spring
- **Mae 4810**: Capstone Design 2 (CR: 3, SEM: FSp)
- **Technical Elective**: Aerospace Elective (CR: 3, SEM: FSp)
- **Technical Elective**: Aerospace Elective (CR: 3, SEM: FSpSu)
- **General Education**: Depth Course (DSS) (CR: 3, SEM: FSpSu)

**Total Credits**: 15

**Total Credits Required**: 127

## University Requirements
- English 1010 is a University requirement and is a prerequisite for English 2010 or English 2020. An English ACT score of 29+ or an SAT verbal score of 640+ will fulfill the English 1010 requirement.

### Pre-Professional Program (PPRU) Requirements
- Complete courses marked with an asterisk (*)
- No more than three total repeats for PPRU courses
- Minimum 2.8 PPRU GPA
- Minimum grade of C- for PPRU courses

### Professional Program (PP) Requirements
- No more than one total repeat is allowed for each required Professional Program or technical elective course
- Minimum 2.0 Professional GPA
- All courses require a grade of C- or higher

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**Abbreviations:**
- (CR) Credits
- (SEM) Semester
- (F) Fall
- (Sp) Spring
- (Su) Summer

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**Academic Year:** 2024-25
Any discrepancy between this chart and the 2024-25 General Catalog is resolved in favor of the General Catalog.

**Fall Semester**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
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<tbody>
<tr>
<td>MAE 1010*</td>
<td>ENGR 2210*</td>
<td>MAE 2300*</td>
<td>MAE 3420</td>
</tr>
<tr>
<td>Intro. To Mechanical Engineering</td>
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<td>Thermodynamics I</td>
<td>Fluid Mechanics</td>
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<td>Linear Algebra &amp; Diff. Equations</td>
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<td>Physics I</td>
<td>Material Science</td>
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<td>BHU</td>
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**Spring Semester**

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</thead>
<tbody>
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<td>MAE 2300*</td>
<td>MAE 3420</td>
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<td>MATH 2210*</td>
<td>MATH 2250*</td>
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</table>

**Total Credits**

- Fall Semester: 15
- Spring Semester: 17
- Total Credits: 32
- Year 1: 32 Credits

Apply for Professional Program after Year 2

**Prerequisite** (includes all color lines) => **Corequisite**

- Fall and Spring
- Fall only course
- Spring only course

**ACADEMIC YEAR**

2024-25