# **Pre-Engineering**

### **Pre-Engineering (PENG)**

The Pre-Engineering program provides students with the academic foundation needed for transfer to a bachelor's degree program in engineering science, such as electrical, chemical, civil, mechanical, computer, or environmental engineering. Students earn an Associate of Science degree and are prepared to enter their bachelor's degree program with half of the required credits already completed.

Students must consult with their academic advisor before choosing electives, to ensure that elective courses meet the requirements of the college or university where they will complete their bachelor's degree.

For more information, please contact the Center for Innovative Technologies at (513) 569-1743.

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| Semester 1   |  | Lec | Lab | Credits |
|--|--|-----|-----|---------|
| CIT 120  | Introductory Mathematics for Engineering Applications ( <b>B</b> ) | 4   | 2   | 5       |
| CHE 131  | General Chemistry 1 Lab ( G)                                       | 0   | 3   | 1       |
| ENG 101  | English Composition 1 ( G)   | 3   | 0   | 3       |
| CHE 121  | General Chemistry 1 ( G)   | 4   | 0   | 4       |
| FYE 1XX First Year<br>Experience Elective ( <b>B</b> ) |  | 1   | 0   | 1       |
| XXX XXX Arts/Humanities Elective 1 ( <b>G</b> )        |  | 3   | 0   | 3       |
| Semester 2   |  |     |     |         |
| PHY 201  | Physics 1: Calculus-Based ( <b>G</b> )                             | 4   | 2   | 5       |
| MAT 251  | Calculus 1 ( G)  | 5   | 0   | 5       |
| ENG 10X English Composition Elective ( <b>G</b> )      |  | 3   | 0   | 3       |
| XXX XXX Technical Elective (T)                         |  | 2   | 2   | 3       |
| Semester 3   |  |     |     |         |
| COMM 110   | Public Speaking ( G)   | 3   | 0   | 3       |
| PHY 202  | Physics 2: Calculus-Based (<br><b>G</b> )                          | 4   | 2   | 5       |
| MAT 252  | Calculus 2 ( B)  | 5   | 0   | 5       |
| XXX XXX Arts/Humanities<br>Elective 2 ( <b>G</b> )     |  | 3   | 0   | 3       |
| Semester 4   |  |     |     |         |
| CIT 130  | Engineering Programming with MATLAB ( <b>T</b> )                   | 2   | 3   | 3       |
| MAT 253  | Calculus 3 ( B)  | 5   | 0   | 5       |
| XXX XXX Social Science<br>Elective 1 ( <b>G</b> )      |  | 3   | 0   | 3       |
| XXX XXX Social Science<br>Elective 2 ( <b>G</b> )      |  | 3   | 0   | 3       |
| Total Credits:   |  | 57  | 14  | 63      |

#### **Electives**

#### First Year Experience Elective

| FYE 100 | College Survival Skills      | 1 |
|---------|------------------------------|---|
| FYE 105 | College Success Strategies   | 2 |
| FYE 110 | Community College Experience | 3 |

#### **English Composition Elective**

### 2 Pre-Engineering

| ENG 102  | English Composition 2: Contemporary Issues     | 3 |  |  |
|--|--|---|--|--|
| ENG 103  | English Composition 2: Topics in Literature    | 3 |  |  |
| ENG 104  | English Composition 2: Technical Communication | 3 |  |  |
| ENG 105  | English Composition 2: Business Communication  | 3 |  |  |
| Arts/Humanities Electives  | 6  |   |  |  |
| Any Transfer Module course from ART, CULT, LIT, MUS, PHI, REL, THE |  |   |  |  |
| Technical Elective <sup>1</sup>                                    | 3  |   |  |  |
| Any CET, CMT, BMET, EET, EMET, EVS, EVT, MET, PSET, SET            |  |   |  |  |
| Social Science Electives   |  |   |  |  |

Any Transfer Module course from ECO, GEO, HST, LBR, POL, PSY, SOC

### **Faculty**

### **Program Chair/Advisor**

Professor George Armstrong, PE, PS, LS, BS george.armstrong@cincinnatistate.edu

Program Chair consent required