



Astronomy

and Math (2025-26)

Department of Physics, Geosciences, and

College of Science, Technology, Engineering,

### Suggested Curriculum Guide for BS Physics, Engineering Physics Concentration

#### **Freshman (1<sup>st</sup> Semester) 17 hrs**

|                                                                |   |
|----------------------------------------------------------------|---|
| GSD 101- Foundations of Learning                               | 3 |
| * CHE 111 ( <i>fulfills Gen. Ed. 4</i> )- General Chemistry I  | 3 |
| CHE 111L- General Chemistry I Lab                              | 1 |
| § * MAT 234 ( <i>fulfills Gen. Ed. 2</i> )- Calculus I         | 4 |
| Gen. Ed. 1A ( <i>ENG 101</i> )                                 | 3 |
| Gen. Ed. 4 ( <i>Nat. Sci.</i> ) ( <i>AST 335 recommended</i> ) | 3 |

#### **Sophomore (1<sup>st</sup> Semester) 15 hrs**

|                                   |   |
|-----------------------------------|---|
| MAT 254- Calculus III             | 4 |
| MAT 353- Differential Equations   | 3 |
| PHY 202- University Physics II    | 5 |
| Gen. Ed. 1C ( <i>Oral Comm.</i> ) | 3 |

#### **Junior (1<sup>st</sup> Semester) 16 hrs**

|                                         |   |
|-----------------------------------------|---|
| PHY 302- Modern Physics                 | 3 |
| PHY 310- Theoretical Methods in Physics | 4 |
| PHY 375- Engineering Thermodynamics     | 3 |
| PHY 360- Engineering Dynamics           | 3 |
| Gen. Ed. 5A ( <i>History</i> )          | 3 |

#### **Senior (1<sup>st</sup> Semester) 15-16 hrs**

|                                         |     |
|-----------------------------------------|-----|
| † Restricted Elective                   | 3-4 |
| Gen. Ed. 3B Course 2                    | 3   |
| EET 252- Digital Electronics            | 3   |
| Free Elective ( <i>upper division</i> ) | 3   |
| Free Elective ( <i>upper division</i> ) | 3   |

#### **Freshman (2<sup>nd</sup> Semester) 16 hrs**

|                                   |   |
|-----------------------------------|---|
| CHE 112-General Chemistry II      | 3 |
| CHE 112L-General Chemistry II Lab | 1 |
| MAT 244- Calculus II              | 4 |
| PHY 201- University Physics I     | 5 |
| Gen. Ed. 1B ( <i>ENG 102</i> )    | 3 |

#### **Sophomore (2<sup>nd</sup> Semester) 15-16 hrs**

|                                                            |     |
|------------------------------------------------------------|-----|
| CSC 174- Intro. to Programming for Science and Engineering | 3   |
| PHY 211- Intermediate Physics                              | 4   |
| PHY 221- Statics                                           | 3   |
| Gen. Ed. 3B Course 1                                       | 3   |
| Free Elective                                              | 2-3 |

#### **Junior (2<sup>nd</sup> Semester) 14 hrs**

|                                      |   |
|--------------------------------------|---|
| PHY 460- Classical Mechanics         | 4 |
| PHY 315- Electrical Circuits         | 4 |
| PHY 406- Advanced Physics Laboratory | 4 |
| PHY 380- Fluid Mechanics             | 3 |

#### **Senior (2<sup>nd</sup> Semester) 13 hrs**

|                                                        |   |
|--------------------------------------------------------|---|
| Gen. Ed. 5B Course 1                                   | 3 |
| Gen. Ed. 3A ( <i>Arts</i> )                            | 3 |
| Gen. Ed. 5B ( <i>Soc. &amp; Behav. Sci.</i> ) Course 2 | 4 |
| Free Elective ( <i>upper division</i> )                | 3 |

### **UNIVERSITY GRADUATION REQUIREMENTS**

General Education  
Foundations in Learning (GSD 101; waived for transfers with 30+ hrs)

**39 hours**

36 hours  
3 hours

### **MAJOR REQUIREMENTS**

#### **Core Courses**

PHY 201, PHY 202, PHY 211, PHY 302, PHY 406

**21 hours**

#### **Concentration Requirements**

PHY 221, PHY 310, PHY 315, PHY 360, PHY 375, PHY 380, PHY 460

**23-24 hours**

† PLUS THREE (3) HOURS selected from (restricted elective):

\*CSC 185, \*EET 253, \*EET 257, \*EET 351, PHY 303, PHY 402, PHY 410, PHY 411, PHY 412, STA 270

#### **Supporting Course Requirements**

\*CHE 111, \*CHE 111L, \*CHE 112, \*CHE 112L, ‡ CSC 174, EET 252, MAT 234, MAT 244, MAT 254, MAT 353

**23 hours**

#### **Free Electives**

hours

**10-12**

### **Total Curriculum Requirements**

**120 hours**