

# East Central University

CHS

## 2024-2025 Chemistry Biochemistry Degree Plan

### FIRST YEAR

#### Fall Semester

MATH 1513 College Algebra  
 CHEM 1114 General Chemistry I  
 ENG 1113 Freshman Composition I  
 General Education Exploration and Personal Enrichment  
 UNIV 1001 Tiger Connect  
 BIOL 1114 General Biology  
**17 or 18 TOTAL HOURS**

#### Spring Semester

MATH 1713 Trigonometry  
 CHEM 1214 General Chemistry II  
 ENG 1213 Freshman Composition II  
 PS 1113 United States Government  
 BIOL 1314 General Zoology  
 OR BIOL 2344 General Microbiology

**17 TOTAL HOURS**

### SECOND YEAR

#### Fall Semester

CHEM 3114 Organic Chemistry I  
 MATH 2825 Calculus and Analytic Geometry I  
 PHYS 1114 General Physics I  
 OR PHYS 2115 Engineering Physics I  
 BIOL 2184 Human Anatomy

**17 or 18 TOTAL HOURS**

#### Spring Semester

CHEM 4114 Organic Chemistry II  
 PHYS 1214 General Physics II  
 OR PHYS 2225 Engineering Physics II  
 General Education Cultural and Aesthetic Awareness  
 (Intercultural Knowledge and Competence)  
 HIST 24-3 United States History Survey

Computer Proficiency requirement

**17 or 18 TOTAL HOURS**

### THIRD YEAR – JUNIOR (Beginning Fall of Even Year) OR FOURTH YEAR – SENIOR (Beginning Fall of Even Year)

#### Fall Semester

PHYS 4514 Physical Chemistry I<sup>^</sup>  
 CHEM 4213 Biochemistry [offered every fall]  
 CHEM 4221 Biochemistry Laboratory [offered every fall]  
 BIOL 4313 Cell and Molecular Biology [offered every fall]  
 General Education Elective (Global Citizenship)

**14 TOTAL HOURS**

#### Spring Semester

CHEM 4413 Advanced Inorganic Chemistry<sup>^^</sup>  
 BIOL 3634 Human Physiology  
 General Education Cultural and Aesthetic Awareness  
 (3 hours)  
 General Education or Electives (4 hours)

**14 TOTAL HOURS**

### THIRD YEAR – JUNIOR (Beginning Fall of Odd Year) OR FOURTH YEAR – SENIOR (Beginning Fall of Odd Year)

#### Fall Semester

CHEM 3214 Quantitative Analysis I [offered every fall]  
 General Education or Electives (11 hours)

**15 TOTAL HOURS**

#### Spring Semester

CHEM 4523 Advanced Biochemistry<sup>^^^</sup>  
 CHEM 3484 Instrumental Analysis<sup>^^</sup>  
 General Education or Electives (7 hours)

**14 TOTAL HOURS**

<sup>^</sup>Offered Fall Semester Even Years      <sup>^^</sup> Offered Spring Semester Even Years

<sup>^^^</sup> Offered Spring Semester Odd Years      <sup>^^^</sup> Offered TBA (To Be Arranged)