

## Bachelor of Science in Chemical Engineering (CH E – B161 Biotechnology)

Summer 2019 through Spring 2020 – Total Credit Hours: 126

This flowchart is not an official check sheet of degree requirements. It is meant to be used as a supplemental visual guide to be used along with the official University of Oklahoma degree check sheet.

### FRESHMAN

### SOPHOMORE

### JUNIOR

### SENIOR

**Fall**  
16 Hours

**Spring**  
16 Hours

**Fall**  
17 Hours

**Spring**  
16 Hours

**Fall**  
15 Hours

**Spring**  
17 Hours

**Fall**  
16 Hours

**Spring**  
13 Hours

**MATH 1914**  
Calculus I

**MATH 2924**  
Calculus II

**MATH 2934**  
Calculus III  
or **MATH 2443**

**CHEM 3423**  
Physical Chemistry I  
*Prereq: CHEM 1415*  
*Coreq: MATH 2924 or 2423*  
or **MATH 2443**

**CHEM 3421**  
Physical Chemistry Lab

**CH E 5243**  
Biochemical Engr.

**ENGR 2431**  
Electrical Circuits I  
*Prereq: MATH 2924 or 2423*  
*Co-req: PHYS 2524*

**Approved Elective** ★  
Artistic Forms

**ENGR 1411 or 3511**  
Freshman / Transfer Engineering Experience

**PHYS 2514**  
General Physics for Engr & Science Majors

**PHYS 2524**  
General Physics for Engr & Science Majors

**CH E 2003**  
Intro. to CH E Computing

**CH E 3473**  
Chemical Engineering Thermo.

**Approved Elective** ★  
Non-Western Culture

**ENGR 3431**  
Electromechanical Systems

**ENGR 2411**  
Applied Engr Statics  
*Prereq: PHYS 2514*  
*Co-req: MATH 2934 or 2433*

**HIST 1483 or 1493**  
U.S. History

**CH E 2033**  
Chemical Engineering Fundamentals

**CH E 3113**  
Momentum, Heat & Mass Transfer I

**CH E 3473**  
Chemical Engineering Thermo.

**CH E 3432**  
Unit Operations

**P SC 1113**  
Am. Fed. Govt.

**CH E 3313**  
Structure & Properties of Materials (was 2313)

**ENGL1113**  
English Composition

**ENGL 1213 or EXPO 1213**  
English Comp or Expository Writing

**MATH 3113**  
Differential Equations  
*Prereq: MATH 2924 or 2423*

**CH E 3123**  
Momentum, Heat & Mass Transfer II

**CH E 3333**  
Separation Processes

**CH E 4262**  
Chem. Engr. Design Lab I

**CH E 4273**  
Advanced Process Design

**CHEM 1315 or CHEM 1335**  
General Chemistry

**CHEM 1415 or CHEM 1435 or CHEM 1425 (H)**  
General Chemistry

**CHEM 3053**  
Organic Chemistry I: Biol. Emph.

**CHEM 3152**  
Organic Chemistry Lab: Biol. Emph.

**CH E 3723**  
Numerical Methods for Engr. Comp.

**CH E 4473**  
Kinetics  
*Additional Prereq: MATH 3113*

**CH E 4253**  
Process Design & Safety

**CH E 4153**  
Process Dynamics & Control

**Approved Elective** ★  
Social Science

**ENGR 2002**  
Prof. Development  
*Prereq: ENGL 1213*  
*Coreq: ENGR 1411/3511*

5 credits from  
**MBIO 2815 or MBIO 3813 & 3812**

**Approved Elective** ★  
Western Civilization & Culture

**CHEM 3653**  
Intro to Biochemistry

**CHEM 3753**  
Intro to Biochemical Methods

#### Key and Important Notes

H = Honors option

← - - - - -> Co-requisite

↔ Prerequisite



At least one of these Gen. Ed. courses must be 3000-4000 level.



Foreign Language: 2 semesters college level or 2 years of high school.



Shaded courses offered once per year.



HS History Deficiency