Bachelor of Science in Chemical Engineering (CH E – B163 Pre-medical / Biomedical Engineering)  
Summer 2017 through Spring 2018 – Total Credit Hours: 132

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
- **Fall**: 16 Hours
  - MATH 1914 Calculus I
  - ENGR 1411 or 3511 Freshman / Transfer Engineering Experience
  - HIST 1483 or 1493 U.S. History
- **Spring**: 16 Hours
  - MATH 2924 Calculus II
  - PHYS 2514 General Physics for Engr & Science Majors
  - ENGL 1113 English Composition
- **Fall**: 16 Hours
  - MATH 2934 Calculus III alt. MATH 2443
  - PHYS 2524 General Physics for Engr & Science Majors
  - CHEM 1315 or CHEM 1335 General Chemistry

### Sophomore
- **Fall**: 19 Hours
  - MATH 3113 Differential Equations Pre-reg: MATH 2423/2924
  - CH E 2033 Chemical Engr. Fundamentals
- **Spring**: 15 Hours
  - MATH 3113 Introductory Zoology
  - PHYS 3213 Mechanical Engineering

### Junior
- **Fall**: 17 Hours
  - CH E 3113 Momentum, Heat & Mass Transfer I
  - MATH 3253 Pre-requisite
  - CHEM 3123 Chemical Engineering Thermo.
- **Spring**: 16 Hours
  - BIOL 3103 Principles of Physiology
  - CH E 4253 Advanced Process Design & Safety
  - CHEM 3421 Physical Chemistry I

### Senior
- **Fall**: 17 Hours
  - BIOL 3103 Principles of Physiology Lab
  - CH E 4262 Chem. Engr. Design Lab I
  - CHEM 3423 Physical Chemistry I
  - ENGR 3431 Electrical Circuits I
  - CHEM 3421 Physical Chemistry Lab
  - ENGR 3431 Electromechanical Systems

### Key and Important Notes
- ★ At least one of these Gen. Ed. courses must be 3000-4000 level.
- ★ Shaded courses offered Fall or Spring only.
- ★ Foreign Language: 2 semesters college level or 2 years of high school.
- ★ Pre-Medical: Recommend taking BIOL 1114 & 1121 summer Freshman year.
- ★ Dashed line = Concurrent enrollment allowed
- ★ Solid line = Pre-requisite
- ★ Capstone pre-requisites: CH E 3333, CH E 4473, CH E 4513, CH E 4253, CH E 4262.
  - H = Honors option
- ★ Pre-Medical: One of the technical electives must be chosen from BIOL 3113, 3333, or 4843.
- The other elective must be selected from bioengineering courses with prior faculty approval.
- Biomedical: Technical electives must include CH E 5203 (offered Fall only) and an approved biological content elective.

Pre-Medical: See Pre-Med advisor each semester.
Gate Center 1, 4th Floor.