Curriculum for the B.S. degree in Chemistry with a Concentration in Pre-Pharmacy

**Introductory Chemistry Courses**
*(9 credits)*
- CHY 105 (1 cr)  Majoring in Chemistry
- CHY 121 (3 cr)/CHY 123 (1 cr)  General Chemistry I with lab
- CHY 122 (3 cr)/CHY 124 (1 cr)  General Chemistry II with lab

**Foundational Chemistry Course Work**
*(22 credits)*
- CHY 242 (5 cr)  Principles of Quantitative Analysis
- CHY 251 (3 cr)/CHY 253 (2 cr)  Organic Chemistry I with lab
- CHY 252 (3 cr)/CHY 254 (2 cr)  Organic Chemistry II with lab
- CHY 261 (3 cr)  Intro to Inorganic Chemistry
- CHY 298 (1 cr)  Intro to Research/Chemistry Profession
- CHY 471 (3 cr)  Physical Chemistry I

**In Depth Chemistry Courses**
*(18-19 credits)*
- CHY 393 (3 cr)  Undergrad Seminar in Chemistry
- CHY 491 (3 cr)  Advanced Integrated Lab I
- CHY 492 (3 cr)  Advanced Integrated Lab II
- CHY 498 (3 cr)  Undergraduate Research

Plus two chemistry electives chosen from:
- CHY 423 (3 cr)  Introductory Polymer Chemistry
- CHY 431 (3 cr)  Structure and Mechanism in Biological Chemistry
- CHY 443 (3 cr)  Instrumental Analysis
- CHY 450 (3 cr)  Introduction to Molecular Modeling
- CHY 453 (4 cr)  Intermediate Organic Chemistry with lab
- CHY 461 (3 cr)  Advanced Inorganic Chemistry
- CHY 462 (3 cr)  Organometallic Chemistry
- CHY 472 (3 cr)  Physical Chemistry II
- CHY 475 (3 cr)  Physical Chemistry III
- CHY 477 (3 cr)  Nanoscience
- CHY 483 (3 cr)  Introductory Wood Chemistry
- CHY 499 (3 cr)  Undergraduate Thesis

(500 level courses may be taken with permission)

**Cognate Courses**
*(16 credits)*
- PHY 111 or PHY 121 (4 cr)  Physics I
- PHY 112 or PHY 122 (4 cr)  Physics II
- MAT 126 (4 cr)  Calculus I
- MAT 127 (4 cr)  Calculus II

**Concentration in Pre-Pharmacy:**
*(33 credits)*
- BIO 100 (4 cr)  Basic Biology with lab
- BIO 200 (4 cr)  Biology of Organisms with lab
- BMB 300 (3 cr)/BMB 305 (2 cr)  General Microbiology with lab
- BIO 208 (4 cr)  Anatomy and Physiology with lab or BIO 335 (4 cr)  Human Anatomy with lab
- BIO 377 (3 cr)/BIO 378 (2 cr)  Medical Physiology with lab
- BMB 322 (3 cr)/BMB 323 (2 cr)  Biochemistry with lab
- MAT 232 (3 cr)  Principals of Statistical Inference
- PSY 100 (3 cr)  General Psychology

**Electives: 22 credits** (used to fulfill the remainder of the general education/Honors and specific pharmacy school requirements as necessary).

**Recommended Electives:**
- CMJ 103 (3 cr)  Public Speaking
- ENG XXX (3 cr)  English Elective
- NUR 303 (3)  Pathophysiology
- SOC 101 (3 cr)  Introduction to Sociology
- ECO 120 or 121 (3 cr)  Principles of Microeconomics or Principles of Macroeconomics
- POS XXX or HTY XXX (3 cr)  Political Science or History Elective
- PSY 3XX or SOC 3XX (3 cr)  Psychology or Sociology Elective
- Humanities or Social Science Elective (3 cr)

**Total Credits = 120**

Students who wish to earn the ACS certified B.S. degree must meet the corresponding degree requirements.