

## 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) Introduction to Chemistry with lab  
CHY 122 (3 cr)/CHY 124 (1 cr) Molecular Basis for Chemical Change with lab

### Foundational Chemistry Course Work

#### (25 credits)

CHY 242 (5 cr) Principles of Quantitative Analysis  
CHY 251 (3cr)/CHY 253 (2 cr) Organic Chemistry I with lab  
CHY 252 (3 cr)/CHY 254 (2 cr) Organic Chemistry II with lab  
CHY 298 (1 cr) Introduction to Research  
CHY 431 (3 cr) Structure and Mechanism in Biological Chemistry  
CHY 461 (3 cr) Advanced Inorganic Chemistry  
CHY 471 (3 cr) Physical Chemistry I

### In Depth Chemistry Courses

#### (12 credits)

CHY 393 (3 cr) Undergraduate Seminar in Chemistry  
CHY 491 (3 cr) Advanced Integrated Lab  
CHY 498 (3 cr) Undergraduate Research  
CHY 499 (3 cr) Undergraduate Thesis

### Cognate Courses

#### (26 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  
MAT 228 (4 cr) Calculus III  
COS 125, 211, 215, or 220 (3 cr) Computer Programming  
CMJ 102, 103 or 106 (3 cr) Fundamentals of Public Communication



### Concentration in Pre-Pharmacy:

#### (31 credits)

BIO 100 (4 cr) Basic Biology with lab  
BIO 200 (4 cr) Biology of Organisms with lab  
BMB 300 (3 cr)/BMB 315 (1 cr) General Microbiology with lab  
BIO 208 (4 cr) Anatomy and Physiology with lab  
BIO 377 (3 cr)/BIO 378 (2 cr) Medical Physiology with lab  
BMB 322 (3 cr)/BMB 323 (1 cr) Biochemistry with lab  
MAT 232 (3 cr) Principles of Statistical Inference  
PSY 100 (3 cr) General Psychology

**Electives: 17 credits** (used to fulfill the remainder of the general education/Honors and specific pharmacy school requirements as necessary).

### Recommended Electives:

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 can earn a BS degree in Chemistry certified by the American Chemical Society by selecting three additional advanced chemistry courses and one semester of differential equations.**

