

## Curriculum for the B.S. degree in Chemistry

### 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

### Foundation Chemistry Course Work

#### (22 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 261 (3 cr) Introduction to Inorganic Chemistry  
CHY 298 (1 cr) Introduction to Research and the  
Chemistry Profession  
CHY 471 (3 cr) Physical Chemistry I

### In Depth Chemistry Courses

#### (18-19 credits)

CHY 393 (3 cr) Undergraduate 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



**Chemistry is an excellent major to combine with other fields such as medicine, pharmacy, environmental science, education, art, nanotechnology, law, or business. The B.S. degree allows flexibility in the schedule so that students have time for the necessary courses in another field.**

**The B.S. degree is recommended for students who are seeking a double major or a double degree, or who wish to pursue a 5<sup>th</sup> year M.S. degree in Chemistry. Students interested in the 5<sup>th</sup> year M.S. should talk with the chair of the Department of Chemistry by the beginning of the third year.**

**Electives: 44 credits** (used to gain significant background in another field and to fulfill the remaining general education requirements as necessary)

**Total Credits = 120**

**\* A grade of C or better must be earned in all required courses (exception: one passing grade of C- or below will be accepted if the overall GPA in CHY courses is at least 2.00).**