

Curriculum for the B.S. degree in Chemistry with ACS certification

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

(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 261 (3 cr) Introduction to Inorganic Chemistry
CHY 298 (1 cr) Introduction to Research and the Chemistry Profession
CHY 431 (3 cr) Structure and Mechanism in Biological Chemistry
CHY 471 (3 cr) Physical Chemistry I

In Depth Chemistry Courses

(24-25 credits)

CHY 393 (3 cr) Undergraduate Seminar in Chemistry
CHY 472 or 475 (3 cr) Physical Chemistry II or III
CHY 491 (3 cr) Advanced Integrated Lab I
CHY 492 (3 cr) Advanced Integrated Lab II
CHY 498 (3 cr) Undergraduate Research
CHY 499 (3 cr) Undergraduate Thesis

Plus **two** chemistry electives chosen from:

CHY 423 (3 cr) Introductory Polymer 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 477 (3 cr) Nanoscience
CHY 483 (3 cr) Introductory Wood Chemistry
(500 level courses may be taken with permission)

Cognate Courses

(24 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
MAT 258 (4 cr) Differential Equations



The American Chemical Society (ACS) certified degree provides excellent preparation for a student who plans to be employed in the chemical industry or plans to pursue graduate studies in chemistry or a closely related field.

For students planning to go to graduate school in chemistry: it is recommended that students take additional upper level courses in chemistry, including graduate (500-level) courses.

Electives: 38 credits (used to fulfill the remainder of the 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).**