Chemistry (A.S.)

Division of Biology, Chemistry & Physics — Curriculum Code 0602

Will Earn Upon Program Completion: Associate in Science (A.S.) Degree

Chemistry is essential to areas of study such as biology, chemical engineering, dentistry, forensics, medicine, pharmacology, and polymer science. In addition, chemists are in high demand and often assume to senior leadership positions in corporate America. The curriculum is equivalent to the first two years of a bachelor's program in Chemistry. Emphasis is placed on the scientific method and critical analysis that will enable you to solve chemical problems in various areas of scientific endeavor.

Program Requirements

GENERAL EDUCATION REQUIREMENTS (33 CREDITS)

Written & Oral Communication (6 credits)
ENG 101 (3 credits)
ENG 102 (3 credits)

Quantitative Knowledge & Skills (8 credits)
MTH 121 (4 credits)
MTH 122 (4 credits)

Scientific Knowledge & Reasoning (4 credits)
PHY 101 (4 credits)

Society & Human Behavior (6 credits)
Choose two of the following courses: ANT 101ANT 105ECO 101ECO 102; POL 101POL 104PSY 101PSY 102PSY 219SOC 101SOC 108or SOC 219 (two 3-credit courses)

Humanistic Perspective (6 credits)
Choose one of the following literature courses: ENG 205ENG 208ENG 215ENG 221ENG 222ENG 232ENG 237ENG 238ENG 242ENG 250ENG 263or ENG 264 (one 3-credit course)
AND
Choose one of the following art or music courses: ART 100ART 101ART 102MUS 100MUS 108MUS 109or MUS 117 (one 3-credit course)

Historical Perspective (3 credits)
Choose one of the following history courses: HST 101HST 102HST 111HST 112HST 121HST 122HST 131HST 132HST 134HST 135HST 136HST 137HST 161or HST 162 (one 3-credit course)

MAJOR COURSE REQUIREMENTS (27 CREDITS)

CHM 103 General Chemistry I (4 credits)
CHM 104 General Chemistry II (4 credits)
CHM 203 Organic Chemistry I (4 credits)
CHM 204 Organic Chemistry II (4 credits)
CHM 299 Independent Research Study in Chemistry (3 credits)
MTH 221 Calculus with Analytic Geometry III (4 credits)
PHY 102 College Physics II (4 credits)

Notes:

(1)The minimum passing grade for all courses designated BIO, CHM, MTH or PHY is "C." If you earn a grade below "C," you need to repeat that course.

(2)*Students who would like to transfer to Rutgers – Newark for their Bachelor's degree should take PHY 103 and PHY 104 instead of PHY 101 and PHY 102.

RECOMMENDED SEQUENCE OF COURSES

Total Credits Required for Degree: 60

First Semester
CHM 103 General Chemistry I (4 credits)
PHY 101* College Physics I (4 credits)
ENG 101 College Composition I (3 credits)
MTH 121 Calculus with Analytic Geometry I (4 credits)
Historical Perspective requirement (one 3-credit course)

Second Semester
CHM 104 General Chemistry II (4 credits)
PHY 102* College Physics II (4 credits)
ENG 102 College Composition II (3 credits)
MTH 122 Calculus with Analytic Geometry II (4 credits)

Third Semester
CHM 203 Organic Chemistry I (4 credits)
MTH 221 Calculus with Analytic Geometry III (4 credits)
Society & Human Behavior requirement (one 3-credit course)
Humanistic Perspective literature requirement (one 3-credit course)

Fourth Semester
CHM 204 Organic Chemistry II (4 credits)
CHM 299 Independent Research Study in Chemistry (3 credits)
Society & Human Behavior requirement (one 3-credit course)
Humanistic Perspective art or music requirement (one 3-credit course)
Free elective (one 3-credit course)

NOTES:

(1) The two General Education Integrated Course Goals, Ethical Reasoning & Action and Information Literacy, are both addressed by the required curriculum described above, regardless of specific choices made by the individual student.

(2) This plan assumes the completion of all required developmental courses in Reading, English, and Mathematics as well as other pre-requisites and co-requisites for some of the courses, as listed in the Course Descriptions section.