CHEMISTRY - HEALTH SCIENCES CONCENTRATION - B.S.

General Education Requirements

I. Required Skills and Competencies 16 cr

___ ENG 106 Writing Intensive First Year Seminar OR
ENG 110 Advanced Placement Writing (3 cr)
May need ENG 050 Basic Writing first, based on test results
___ HCS 100 Intro to Human Communication (3 cr)
___ Mathematical Competency-Required
MAT 211 Calculus I —if necessary, student may need to take
MAT 175 Pre-Calculus first
___ HIS 105 World History I (3 cr) AND
___ HIS 106 World History II (3 cr)

II. Categories of Knowledge 37 cr

A: Logic/Numbers for Rational Thinking (4 cr)
___ MAT 212 Calculus II

B: Literary, Artistic & Cultural Traditions (9 cr)
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___ _____
___ _____

C: Biological & Physical Sciences (12 cr)
___ CHM 121 Chemical Bonding
___ PHY 221 Fundamentals of Physics I
___ BIO 116 Principles of Biology II *

D: Political, Economic & Geographic Science (6 cr)
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___ _____

E: Social & Behavioral Science (6 cr)
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___ _____

III. Library Skills Completed via College/Advanced Writing course

Chemistry Requirements 39 cr

___ CHM 121 Chemical Bonding (3 cr) *
___ CHM 123 Lab IA (2 cr)
___ CHM 122 Chemical Dynamics (3 cr)
___ CHM 124 Lab IIA (2 cr)
___ CHM 221 Modern Organic Chemistry I (3 cr)
___ CHM 223 Lab IIIA (2 cr)
___ CHM 222 Modern Organic Chemistry II (3 cr)
___ CHM 224 Lab IVA (2 cr)
___ CHM 301 Biochemistry I (3 cr)
___ CHM 361 Physical Chemistry I (4 cr)
___ CHM 362 Physical Chemistry II (4 cr)
___ CHM 371 Analytical Chemistry (4 cr)
___ CHM 381 Advanced Inorganic Chemistry (4 cr)

Math Requirement 8 cr

___ MAT 211 Calculus I (4 cr) *
___ MAT 212 Calculus II (4 cr) *

Physics Requirements 10 cr

___ PHY 221 Fundamentals of Physics I (5 cr) *
___ PHY 222 Fundamentals of Physics II (5 cr)

Biology Requirements 13 cr

___ BIO 116 Principles of Biology II (4 cr) *
___ BIO 220 Microbiology (3 cr)
___ BIO 260 Genetics (3 cr)
___ BIO 385 Cell Biology (3 cr)

Biology Electives 12+ cr

All students electing the chemistry-health sciences concentration should also select with advisement, courses listed below which will accommodate specific professional requirements.

BIO 317 Parasitology
BIO 324 Pathogenic Microbiology
BIO 350 Human Physiology
BIO 351 Animal Physiology
BIO 370 Comparative Anatomy
BIO 371 Human Anatomy
BIO 373 Vertebrate Embryology
BIO 374 Hematology
BIO 409 Immunology
BIO 450 Endocrinology
BIO 375 Histology

***Major requirement double counts as General Education Credits**

Min. Total Graduation Requirements **120 cr**

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GPA Needed to Declare: **2.8 ****

** All students are expected to have a minimum GPA of 2.8 by the end of the sophomore year. Some pre-professional programs will require a considerably higher GPA to be competitive for admission to a professional school.

Helpful Hints for Advising:

Semester 1	CHM 121 Chemical Bonding and Lab IA MAT 211 Calculus I
Semester II	CHM 122 Chemical Dynamics and Lab IIA MAT 212 Calculus II BIO 116 Principles of Biology II
Semester III	PHY 221 Fundamentals of Physics I CHM 221 Modern Organic Chem I & Chem 223 Lab IIIA BIO 260 Genetics
Semester IV	PHY 222 Fundamentals of Physics II CHM 222 Mod Organic Chem II & Chem 224 Lab IVA BIO 220 Microbiology

All chemistry majors will take a comprehensive examination in their junior year at a time and place designated by the department. A satisfactory performance in all areas of this examination is a requirement for departmental recommendation and ACS certification.