CHEMISTRY - PRE-PHARMACY 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 Historical Foundations of Global Cultures (3 cr) AND
   ___ HIS 106 Thinking Historically in a Global Age (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)
   ___ ______________________________
   ___ ______________________________
   ___ ______________________________

C: Biological & Physical Sciences (12 cr)
   ___ CHM 121 Chemical Bonding
   ___ PHY 205 Intermediate Physics I
   ___ BIO 161 Principles of Biology: Cell Structure & Function *

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

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

III. Library Skills Completed via College/Advanced Writing course

Chemistry Requirements 43-44 cr
   ___ CHM 110 The Chemistry Experience (1 cr)
   ___ CHM 121 Chemical Bonding (3 cr) *
   (Prerequisites: MAT 175 or MAT 117 (either may be taken
   concurrently with CHM 121) or math placement at Level 5 and
   one year of high school chemistry or CHM 105 with a grade of C or
   better.)
   ___ CHM 123 Lab IA (1 cr)
   ___ CHM 122 Chemical Dynamics (3 cr)
   (Prereq: Grade of C or better in CHM 121)
   ___ CHM 124 Lab IIA (3 cr)
   ___ CHM 221 Modern Organic Chemistry I (3 cr)
   ___ CHM 223 Lab IIIA (1 cr)
   ___ CHM 222 Modern Organic Chemistry II (3 cr)
   ___ CHM 224 Lab IVA (3 cr)
   ___ CHM 301 Biochemistry I (3 cr)
   ___ CHM 324 Advanced Organic Lab (1 cr)
   ___ CHM 361 Physical Chemistry I (4 cr)
   ___ CHM 362 Physical Chemistry II (4 cr)
   ___ CHM 371 Analytical Chemistry (4 cr)
   ___ CHM 381 Intermediate Inorganic Chemistry (3 cr)
   ___ CHM 4xx Level Chemistry Elective (3-4 cr)

Physics Requirements 8 cr
   ___ PHY 205 Intermediate Physics I (3 cr) * AND
   ___ PHY 123 Physics I Lab (1 cr)
   ___ PHY 206 Intermediate Physics II (3 cr) AND
   ___ PHY 125 Physics II Lab (1 cr)

Math Requirement 4 cr
   ___ MAT 117 Applied Statistics

Biology Requirements 13 cr
___ BIO 162 Principles of Biology: Organismal Diversity (4 cr)
___ BIO 220 Microbiology (3 cr)
Choose one:
___ BIO 350 Human Physiology (4 cr) OR
BIO 370 Comparative Anatomy (4 cr)
Free Electives 11 cr
*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 I CHM121 Chemical Bonding and Lab IA
MAT 211 Calculus I
Semester II CHM122 Chemical Dynamics and Lab IIA
MAT 212 Calculus II
BIO 162 Principles of Biology: Organismal Diversity
Semester III PHY 205 Intermediate Physics I & PHY 123 Lab I
CHM221 Modern Organic Chem I & Chem 223 Lab IIIA
BIO 260 Genetics
Semester IV PHY 206 Intermediate Physics II & PHY 125 Lab II
CHM222 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.