CHEMISTRY - B.S.
A 4-year template is available at www.ship.edu/undeclared

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
   MAT211 Calculus I —if necessary, student may need
   MAT175 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 35 cr
   A: Logic/Numbers for Rational Thinking (4 cr)
      ___ MAT 212 Calculus II
   B: Literary, Artistic & Cultural Traditions (9 cr)
      ______________________________
      ______________________________
      ______________________________
   C: Biological & Physical Sciences (10 cr)
      ___ BIO 161 Principles of Biology: Cell Structure & Function
      ___ CHM121 Chemical Bonding
      ___ PHY 205 Intermediate Physics I
   D: Political, Economic & Geographic Science (6 cr)
      ______________________________
      ______________________________
   E: Social & Behavioral Science (6 cr)
      ______________________________

III. Library Skills Complete viaCollege/Advanced Writing course

Chemistry Requirements 50 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 312 Chemistry Seminar (1 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 420 Biochemistry II (3 cr) OR
   CHM 490 Special Topics (3 cr)
   ___ CHM 481 Advanced Inorganic Chemistry (4 cr)
   ___ CHM 497 Introduction to Research (semester I) (1 cr)
   ___ CHM 498 Introduction to Research (semester II) (1 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)
Computer Science Requirements 4 cr
CSC 110 Computer Science I (3 cr) AND
CSC 106 Computer Science I Lab (1 cr)
Free Electives 13 cr
*Major requirement double counts as General Education Credits
Min. Total Graduation Requirements 120 cr

GPA Needed to Declare: 2.0
Helpful Hints for Advising:
Semester 1 CHM 121 Chemical Bonding & CHM 123 Lab IA
MAT 211 Calculus I
Semester II CHM122 Chemical Dynamics & CHM 124 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 & CHM 223 Lab IIIA
Semester IV PHY 206 Intermediate Physics II & PHY 125 Lab II
CHM222 Mod Organic Chem II & CHM 224 Lab IVA
Chemistry minor is available 23-27 credits.
Biochemistry minor is available 24-28 credits; see department.
American Chemical Society Certification available.
See Department Chairperson for details.
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.