CHEMISTRY - FORENSICS 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)
___ CHM121 Chemical Bonding *
___ PHY 205 Intermediate Physics I *
___ BIO 161 Principles of Biology: Cell Structure & Function I *

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

E: Social & Behavioral Science (6 cr)

III. Library Skills Complete 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)

Biology Requirements 9 cr

___ BIO 260 Genetics (3 cr)
___ BIO 418 Molecular Biology (3 cr)
BIO 461 Techniques in Biochemistry (3 cr)
Criminal Justice Requirements 15 cr
CRJ 100 Intro. to Criminal Justice (3 cr)
CRJ 211 Criminal Law and Procedures (3 cr)
CRJ 321 Criminal Investigation (3 cr)
CRJ 336 Intro to Forensic Science (3 cr)
CRJ 456 Forensic Science: Evidence Analysis (3 cr)
*Major requirement fulfills General Education Credits
Total Graduation Requirements 123 cr

GPA Needed to Declare: 2.0
Helpful Hints for Advising:
Semester I CHM121 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 & 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
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.
A 4-year template is available at www.ship.edu/undeclared