

General Education

Foundations: (13 Credits)

Oral Communication (3 Credits)

- _____

Quantitative Reasoning (4 Credits)

- MATH 2410 Calculus I

Technological Literacy (3 Credits)

- _____

Written Communication (3 Credits)

- ENGL 1200 College Composition

Discoveries: (Credits 29)

Art/Humanities (9 Credits)

- _____
- _____
- _____

Natural Sciences & Technology (11 Credits)

- CHEM 1108 General Chemistry I
- MATH 242o Calculus II
- _____

Social Sciences (9 Credits)

- _____
- _____
- _____

Elective/Wellness & Personal Health: (4 Credits)

- CHEM 1128 General Chemistry II

Competencies:

Applied Methodologies

- CHEM 1128 General Chemistry II

Ethical Reasoning

-

Information Literacy

- CHEM 3010 Chemistry Career and Professional Development II

Intercultural Fluency

-

Keystone Experience

- CHEM 4900 Chemistry Capstone

Quantitative Applications

- CHEM 1108 General Chemistry I

Writing Intensive

- CHEM 2205 Organic Chemistry I Laboratory
- ~And~ CHEM 4605 Biochemistry I Laboratory

Program Requirements

Required Major Courses: (46-47 Credits)

- PHYS 1500/10 General Physics I
 ~Or~ PHYS 2500/10 University Physics I
- PHYS 1600/10 General Physics II
 ~Or~ PHYS 2600/10 University Physics II
- CHEM 2010 Chemistry Career and Professional Development I
- CHEM 2200 Organic Chemistry I
 ~And~ CHEM 2205 Organic Chemistry I Laboratory
- CHEM 2250 Organic Chemistry II
 ~And~ CHEM 2255 Organic Chemistry II Laboratory
 ~Or~ CHEM4115 Advanced Chemistry Laboratory
- CHEM 3010 Chemistry Career and Professional Development II
- CHEM 3300 Inorganic Chemistry I
 ~And~ CHEM 3305 Inorganic Chemistry I Laboratory
 ~Or~ CHEM3315 Intermediate Chemistry I Laboratory
- CHEM 3400 Quantitative Chemical Analysis
 ~And~ CHEM 3405 Quantitative Chemical Analysis Laboratory
 ~Or~ CHEM3415 Intermediate Chemistry II Laboratory
- CHEM 3450 Instrumental Analysis
 ~And~ CHEM 3455 Instrumental Analysis Laboratory
 ~Or~ CHEM4905 Chemistry Research I
- CHEM 4500 Physical Chemistry I
 ~And~ CHEM 4505 Physical Chemistry I Laboratory
 ~Or~ CHEM4515 Intermediate Chemistry III Laboratory
- CHEM 4600 Biochemistry I
 ~And~ CHEM 4605 Biochemistry I Laboratory
- CHEM 4650 Biochemistry II
- CHEM 4900 Chemistry Capstone

Required Concentration Courses: (8 Credits)

- BIOL 1900 Intro to Cell and Molecular Biology
- BIOL 4320 Molecular Biology

Concentration Electives: (At least 8 Credits)

- CHEM 3350 Inorganic Chemistry II
- CHEM 3355 Inorganic Chemistry II Lab
- CHEM 3650 Toxicology
- CHEM 3670 Drugs from Discovery to Design
- CHEM 4670 Biochemistry Basis of Human Disease
- CHEM 4550 Physical Chemistry II
- CHEM 4555 Physical Chemistry II Lab
- CHEM 4905 Chemistry Research I
- BIOL 2202 Genetics
- BIOL 3326 General Microbiology
- BIOL 3330 Cell Biology

Free Electives: (14 Credits)

- _____
- _____
- _____
- _____

Suggested Four Year Course Sequence

Year 1

Fall Semester

BIOL 1900 Intro Cell & Molec Biology
CHEM 1108 General Chemistry I
ENGL 1200 College Composition
MATH 1410 Pre-calculus*

Spring Semester

CHEM 1128 General Chemistry II
MATH 2410 Analytic Geom & Calculus I
General Education - Foundation - Oral Communication^
General Education - Foundation - Technological Literacy^
General Education - Discoveries

Year 3

Fall Semester

BIOL 4320 Molecular Biology
CHEM 3400 Quant Chem Analysis
~And~ CHEM 3405 Quant Chem Analysis. Lab
~Or~ CHEM 3415 Int Chemistry Lab II
General Education - Discoveries
Minor/Elective Requirement

Spring Semester

CHEM 3010 Chem Car Prof Dev II
CHEM 3450 Instrumental Analysis
~And~ CHEM 3455 Instrumental Analysis Lab
CHEM 4500 Physical Chemistry I
~And~ CHEM 4505 Physical Chemistry I Lab
~Or~ CHEM 4515 Intermediate Chemistry Lab III
Concentration/Elective Requirement
Minor/Elective Requirement

NOTE:

*MATH1410 Pre-calculus is an elective course for students not prepared to take MATH2410 in semester 1. If a student is prepared for MATH2410, they can take that in semester 1.

Year 2

Fall Semester

CHEM 2200 Organic Chemistry I
~And~ CHEM 2205 Organic Chemistry I Lab
CHEM 2010 Chemistry Career & Prof Development I
MATH 2420 Calculus II
PHYS 1500/2500 Physics I
~And~ PHYS 1510/2510 Physics I Lab
General Education - Discoveries

Spring Semester

CHEM 2250 Organic Chemistry II
~And~ CHEM 2255 Organic Chemistry II Lab
~Or~ CHEM 4115 Adv Chem Lab
CHEM 3300 Inorganic Chemistry I
~And~ CHEM 3305 Inorganic Chemistry I Lab
~Or~ CHEM 3315 Intermediate Chemistry Lab I
PHYS 1600/2600 Physics II
~And~ PHYS 1610/2610 Physics II Lab
General Education - Discoveries

Year 4

Fall Semester

CHEM 4600 Biochemistry I
CHEM 4605 Biochemistry I Lab
Research or Advanced Lab (as needed)
Concentration/Elective Requirement
Concentration/Elective Requirement
Minor/Elective Requirement

Spring Semester

CHEM 4650 Biochemistry II
CHEM 4900 Chemistry Capstone
Research or Advanced Lab (as needed)
Minor/Elective Requirement
General Education - Discoveries

