

General Education

Foundations: (13 Credits)

Oral Communication (3 Credits)

Written Communication (3 Credits)

ENGL 1200 College Composition

Quantitative Reasoning (4 Credits)

MATH2410 Analytical Geometry and Calculus I

Technological Literacy (3 Credits)

Discoveries: (Credits 29)

Art/Humanities (9 Credits)

Social Sciences (9 Credits)

Natural Sciences & Technology (11 Credits)

CHEM 1108 General Chemistry I

MATH 2420 Analytical Geometry and Calculus II

Program Elective: (4 Credits)

CHEM 1128 General Chemistry II

Competencies:

Quantitative Applications

CHEM 1108 General Chemistry I

Applied Methodologies

CHEM 1128 General Chemistry II

Intercultural Fluency

Ethical Reasoning

Information Literacy

CHEM 3010 Chemistry Career and Professional Development II

Writing Intensive

CHEM 2205 Organic Chemistry I Laboratory

Writing Intensive

CHEM 4605 Biochemistry I Laboratory

Keystone Experience

CHEM 4900 Chemistry Capstone

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
- CHEM 2205 Organic Chemistry I Laboratory
- CHEM 2250 Organic Chemistry II
- CHEM 2255 Organic Chemistry II Laboratory or CHEM4115 Advanced Chemistry Laboratory
- CHEM 3010 Chemistry Career and Professional Development II
- CHEM 3300 Inorganic Chemistry I
- CHEM 3305 Inorganic Chemistry I Laboratory or CHEM3315 Intermediate Chemistry I Laboratory
- CHEM 3400 Quantitative Chemical Analysis
- CHEM 3405 Quantitative Chemical Analysis Laboratory or CHEM3415 Intermediate Chemistry II Laboratory
- CHEM 3450 Instrumental Analysis
- CHEM 3455 Instrumental Analysis Laboratory or CHEM4905 Chemistry Research I
- CHEM 4500 Physical Chemistry I
- CHEM 4505 Physical Chemistry I Laboratory or CHEM4515 Intermediate Chemistry III Laboratory
- CHEM 4600 Biochemistry I
- 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 Biochem 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

BIOL1900 Intro Cell & Molec Biology
CHEM1108 General Chemistry I
ENGL1200 College Composition
MATH1410 Pre-calculus*

Spring Semester

CHEM1128 General Chemistry II
MATH2410 Analyt Geom & Calculus I
GenEd Foundation- Oral Communication
GenEd Foundation- Tech Literacy
GenEd Discoveries

Year 3

Fall Semester

BIOL4320 Molecular Biology
CHEM3400 Quant Chem Analysis
CHEM3405 Quant Chem Analys. Lab OR
CHEM3415 Int Chemistry Lab II
GenEd Discoveries
Minor Requirement/Elective

Spring Semester

CHEM3010 Chem Car Prof Dev II
CHEM3450 Instrumental Analysis
CHEM3455 Instrumental Analysis Lab
CHEM4500 Physical Chemistry I
CHEM4505 Physical Chemistry I Lab OR
CHEM4515 Int Chemistry Lab III
Concentration Requirement/Elective
Minor Requirements/Elective

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

CHEM2200 Organic Chemistry I
CHEM2205 Organic Chemistry I Lab
CHEM2010 Chem Car Prof Dev I
MATH2420 Analyt Geom & Calculus II
PHYS1500/2500 Physics I
PHYS1510/2510 Physics I Lab
GenEd Discoveries

Spring Semester

CHEM2250 Organic Chemistry II
CHEM2255 Organic Chemistry II Lab OR CHEM4115 Adv Chem Lab
CHEM3300 Inorganic Chemistry I
CHEM3305 Inorg Chem I Lab OR
CHEM3315 Interm Chem Lab I
PHYS1600/2600 Physics II
PHYS1610/2610 Physics II Lab
GenEd Discoveries

Year 4

Fall Semester

CHEM4600 Biochemistry I
CHEM4605 Biochemistry I Lab
Research or Advanced Lab (as needed)
Concentration Requirements/Elective
Concentration Requirements/Elective
Minor Requirements/Elective

Spring Semester

CHEM4650 Biochemistry II
CHEM4900 Chemistry Capstone
Research or Advanced Lab (as needed)
Minor Requirements/Elective
General Education Discoveries

