



# Chemistry, B.S. *major*

## Biochemistry/ Biotechnology Emphasis

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Required Credits: 66

Required GPA: 2.25

### I REQUIRED COURSES

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3100 Journal Club (1 credit)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 4510 Instrumental Methods of Analysis (3 credits)
- CHEM 4571 Instrumental Analysis Laboratory I (1 credit)
- CHEM 4572 Instrumental Analysis Laboratory II (1 credit)
- MATH 2471 Calculus I (5 credits)
- PHYS 2101 Physics I (5 credits)

### II REQUIRED EMPHASIS

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4412 Biochemistry II (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- CHEM 4472 Biochemistry Laboratory II (1 credit)

SELECT 2 OF THE FOLLOWING COURSES:

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 3580 Immunology (5 credits)
- BIOL 3590 Cell Biology (4 credits)
- BIOL 3710 Microbiology (4 credits)

### II REQUIRED EMPHASIS

Select 6 semester credits from CHEM 3100 or above.

Up to 3 semester credits of research (CHEM 3980 or 4980) and internship (CHEM 3970 or 4970) may be used in this area. CHEM 3100 may be repeated with 1 credit applying to this area.

### SUGGESTED SEMESTER SCHEDULE FOR CHEMISTRY MAJOR, B.A.

The following is a list of required courses for the Chemistry Major, B.A., arranged by year. This schedule is intended to assist students in planning their academic program and may be altered somewhat to fit the students background and circumstances.

Freshman

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- Liberal Education requirements
- Electives

Sophomore

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- Liberal Education requirements

Junior/Senior

- CHEM 3100 Journal Club (1 credit)
- CHEM 3110 Laboratory Management and Safety (2 credits)
- CHEM 4411 Biochemistry I (3 credits)  
or CHEM 4811 Advanced Inorganic Chemistry I (3 credits)
- Chemistry electives
- Complete Liberal Education requirements
- Electives