Chemistry, B.S. *major*
Environmental Chemistry Emphasis

Required Credits: 73
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 2 OF THE FOLLOWING COURSES:

- CHEM 4101 Environmental Chemistry (3 credits)
  or ENVR 4101 Environmental Chemistry (3 credits)
- CHEM 4102 Environmental Chemistry II (3 credits)
  or ENVR 4102 Environmental Chemistry II (3 credits)

COMPLETE 4 SEMESTER CREDITS FROM THE FOLLOWING COURSE:

- CHEM 4970 Internship (3-4 credits)

II REQUIRED EMPHASIS

Select 3 semester credits of electives from CHEM 3100 or above. (CHEM 3100 may be repeated with 1 credit applying to this area.)

SELECT 24 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)
- BIOL 3361 Limnology I (4 credits)
- CHEM 3140 Chemical Toxicology (3 credits)
- CHEM 3150 Standard Methods of Water Analysis (3 credits)
  or ENVR 4220 Sampling and Analysis (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4412 Biochemistry II (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- ENVR 4050 Geochemistry (3 credits)
- ENVR 4200 Wastewater Treatment (3 credits)
- ENVR 4240 Waste Management (4 credits)
- ENVR 4260 Risk Assessment and Auditing (3 credits)
- ENVR 4400 Environmental Microbiology (3 credits)
- ENVR 4500 Environmental Toxicology (4 credits)
- GEOL 3211 Environmental Hydrology (3 credits)

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