## The Bachelor of Arts Degree in Chemistry (B.A.)

The Bachelor of Arts curriculum is intended for students who want a background in Chemistry as a basis for future work in other areas of science, such as the life sciences, or in professional areas such as medicine, pharmacy or veterinary science.

- General Chemistry 1610-1620 and Organic Chemistry 2610-2620 are the recommended sequences for chemistry and biochemistry majors, although qualified students are urged to take Honors sequences instead.
- Chemistry 1612 \& 1622 are highly recommended. They provide a structure in which students can work actively in groups of 6 to 8 peers to enhance learning.
- The major is completed with nine (9) hours of advanced science electives, which must include at least three (3) hours of upper level chemistry or biochemistry coursework.

Examples of some approved science electives include:

- Chem 3510 (Inorganic - 3)
- Chem or Biochem 4998/4999 (Research)
- Chem 5420 (Organic Spectroscopy - 1.5)
- Chem 5430 (Carbohydrates - 3)
- Chem 5440 (Computational - 3)
- Chem 5520 (Nanochemistry - 3)
- Biochemistry 4511 (4)
- Microbiology 4000 (4)
- Molecular Genetics 4500 (3)
- Most 2000-4000 level courses in Mathematics
- Other non-required graded Chem and Biochem 40006000 level courses
- Approved 4000-6000 level courses in Microbiology, Molecular Genetics, Physics, Food Science, and EEOB
- Undergraduate Research (Chem or Biochem 4998/4999) is recommended. A maximum of six (6) hours of research may be used to fulfill the requirements of the major.

| Autumn Semester (Year 1) |  | Spring Semester (Year 1) |  |
| :---: | :---: | :---: | :---: |
| General Chemistry 1 (1910H, 1610, 1210) | 5 | General Chemistry 2 (1920H, 1620, 1220) | 5 |
| PLTL in Gen Chem (1612) | 1 | PLTL in Gen Chem (1622) | 1 |
| Calculus 1 (Math 1151) | 5 | Calculus 2 (Math 1152) | 5 |
| GE Elective | 3-4 | GE Elective (Biology 1113) | 4 |
| Freshman Survey | 1 | GE Elective | 3 |
|  | 15-16 |  | 18 |
| Autumn Semester (Year 2) |  | Spring Semester (Year 2) |  |
| Analytical Chemistry 1 (2210) | 5 | Organic Chemistry 2 (2920H, 2620, 2520) | 4 |
| Organic Chemistry 1 (2910H, 2610, 2510) | 4 | Organic Chemistry Laboratory $2(2550)$ | 2 |
| Organic Chemistry Laboratory 1 (2540) | 2 | Physics 2 (1201 or 1251) | 5 |
| Physics 1 (1200 or 1250) | 5 | GE Elective | 3 |
|  | 16 |  | 14 |
| Autumn Semester (Year 3) |  | Spring Semester (Year 3) |  |
| Physical Chemistry 1 (Biochem 5721) | 3 | Physical Chemistry 2 (Biochem 5722) | 3 |
| Advanced Science Elective (Chem/Biochem) | 3-4 | Physical Chemistry Laboratory (4410) | 3 |
| Elective | 3 | Elective | 3 |
| GE Elective | 4 | GE Elective | 4 |
| GE Elective | 3 | GE Elective | 3 |
|  | 16-17 |  | 16 |
| Autumn Semester (Year 4) |  | Spring Semester (Year 4) |  |
| Advanced Science Elective | 3 | Advanced Science Elective | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | GE Elective | 3 |
| GE Elective | 3-4 | GE Elective | 3 |
|  |  | GE Elective | 3 |
|  | 12-13 |  | 15 |

