THE CAMPBELL PROGRAM
With the expansion of scientific research into the areas of biotechnology, there is a need for graduates to have a balanced understanding of both biology and chemistry. Our goal is to offer a well-rounded, interdisciplinary program which gives students the best of both worlds. The courses offered in this program are designed to prepare students for professional and graduate schools as well as careers in government and private industry. Students may take advanced electives in either Biology or Chemistry to prepare them for specific career goals.

THE CAMPBELL APPROACH
We strive to present a balance between the theoretical and the practical by spending equal amounts of time in lecture and lab. Although the lower-level labs average about 20-24 students, upper-level labs are taught by experienced faculty members and typically have fewer students to ensure ample opportunity for student-faculty interaction. Our facilities are improving each year and currently house:

- DNA Sequencer
- Wireless Internet access for online searches
- Electrophoresis equipment for biochemical techniques
- Chromatographic equipment for separation and analysis
- PCR thermocyclers and related molecular biotechnology equipment
- Animal tissue culture facilities
- Gel documentation system

We continue to seek grants and outside funding to accommodate the growing needs of our departments.

THE CAMPBELL FACULTY
Our faculty’s strong academic credentials are complemented by vast teaching expertise in a wide variety of subjects. During their summers, faculty members may be found actively involved in personal research, attending symposiums and colloquiums around the nation, or working on projects at other universities or in industry. You will find faculty members are approachable, friendly and regularly available for “walk-in” discussions. Biochemistry majors are advised by both Biology and Chemistry faculty who can relate to your personal career goals.

You will also find opportunities to interact with faculty and other majors through a variety of club opportunities including the Walker Biology Club, the Pre-Medical/Allied Health Honor Society and the American Chemical Society Student Affiliate. These clubs strive to provide opportunities to keep students up-to-date with happenings in scientific circles.

THE CAMPBELL STUDENT
We are seeking students who are seriously interested in science and may have a desire to follow up with graduate school. Generally speaking, our students are well-grounded in biology, chemistry and mathematics courses (through Calculus) before arriving at Campbell. Successful students in our program usually have an SAT score above 1100, a high school unweighted GPA over 3.0 and a real aptitude for science and mathematics.

Some majors will later go on to advanced graduate degrees such as biochemistry, chemistry, medicinal chemistry, or specific types of scientific research; others may go on to medical school. The remainder will likely work in lab research support with the government or in private industry.
**BIOCHEMISTRY: BACHELOR OF SCIENCE**

Requirements for a Major in Biochemistry:

MATH 160, 122, 223; PHYS 251, 252; BIOL 111, 201, 342, 350, 430, 508 and 9 semester hours of elective courses in BIOL and/or CHEM; CHEM 111, 113, 215, 227, 228, 334.

*Note: Students are required to take either BIOL 451, CHEM 451 or CHEM 452 for an additional one-semester hour.*

**CURRICULUM OUTLINE**

**Biochemistry**

**FRESHMAN YEAR**

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>HRS</th>
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<tbody>
<tr>
<td>BASIC BIOLOGY</td>
<td>BIOL 111</td>
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<tr>
<td>GENERAL CHEMISTRY I</td>
<td>CHEM 111</td>
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<tr>
<td>CALCULUS</td>
<td>MATH 122</td>
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<td>CELL/MOLECULAR</td>
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<tr>
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<td>CHEM 113</td>
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<tr>
<td>CALCULUS II</td>
<td>MATH 223</td>
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**SOPHOMORE YEAR**

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<tr>
<td>ORGANIC CHEMISTRY I</td>
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<td>ACADEMIC WRITING &amp; LIT</td>
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<td>WESTERN CIV I</td>
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<td>ADV CELL/MOL BIOCHEM</td>
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**JUNIOR YEAR**

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**SENIOR YEAR**

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Campbell requires 124 hours to graduate. Some majors may require more.