To be admitted to full major status, students must fulfill the pre-biology course and grade-point average requirements as described in the General Catalog and Pre-Biological Sciences Major Sheet. At minimum, they must complete twelve designated courses from the Preparation for the Major with a 2.0 or higher UC grade-point average. Grades earned must meet grade prerequisites for the full major.

### Preparation for the Major

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Units Yet to Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 1A-AL-B-CL-C-CL (or 2A-AC-B-BC-CC)</td>
<td>15</td>
</tr>
<tr>
<td>MCDB 1A-1AL-1BL, EEMB 2-3-3L, and either MCDB 1BL or EEMB 2L</td>
<td>16</td>
</tr>
<tr>
<td>Chemistry 6AL-6BL (or 6BH) and 109A-B-C or 109AH-BH-CH</td>
<td>18</td>
</tr>
<tr>
<td>Math 3A-B-C and 5A or Math 3A-B and 4A and 6A</td>
<td>16</td>
</tr>
<tr>
<td>Physics 6A-AL-B-CL-CL</td>
<td>12</td>
</tr>
</tbody>
</table>

### Upper-Division Major

48 UD units required, distributed as follows:

- **A. Genetics**: MCDB 101A-B
- **B. Biochemistry**: MCDB 108A (or W 108A) and 108B-C
- **C. Biochemistry Lab**: MCDB 109L
- **D. Physical Chemistry**: Chemistry 112A (recommended) or 113A; and MCDB 123
- **E. Electives**: courses from the following list to bring the total UD units for the major to 48

Chemistry 141, 143, 145, 147, 161, 162A, 162B

No more than 8 units of the following courses combined will apply to the major: MCDB 185-199.
BMSE may be accepted by petition only.

A minimum of 32 UD units must be completed through courses within the MCDB department.

Courses taken:

### Major Regulations

- **Prerequisites**: Check the General Catalog for the prerequisites to all listed courses.
- **P/NP Grading Option**: Not allowed for major courses (prep or UD), including courses applied to the major from other departments, except up to 8 units of courses that do not allow letter grades.
- **Substitutions**: In the major requirements permissible only by petition to the department chair and dean.
- **Residence Requirements**: At least 20 UD units in major while in residence at UCSB.
- **G.P.A. Requirements**: At least 2.0 overall UC average in **all** upper-division major courses and **all** courses (Prep and UD) for the major, including courses in excess of minimum requirements.
- **Double Majors**: With the approval of each department chairperson, up to a total of 8 units may be applied simultaneously to both UD majors.