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.

**Note:** Hyphens indicate an entire sequence must be completed to fulfill an area requirement.

### Preparation for the Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 1A-AL-BL-C-CL (or 2A-AC-B-BC-C-CC)</td>
<td>15</td>
</tr>
<tr>
<td>MCDB 1A-B, EEMB 2-3 and either (MCDB 1AL, and MCDB 1BL or EEMB 2L, and EEMB 3L) or (MCDB 1LL and EEMB 2LL)</td>
<td>16</td>
</tr>
<tr>
<td>(Transfer students must consult the advisor regarding selected topics to be covered in Z courses)</td>
<td></td>
</tr>
<tr>
<td>Chemistry 6AL-6BL (or 6BH) and 109A-B-C or 109AH-BH-CH</td>
<td>18</td>
</tr>
<tr>
<td>Mathematics 3A-B or 34A-B</td>
<td>8</td>
</tr>
<tr>
<td>One of the following: PSTAT 5LS or 5A or Math 4A</td>
<td>4 or 5</td>
</tr>
<tr>
<td>Physics 6A-AL-B-ML-C-CL</td>
<td>12</td>
</tr>
</tbody>
</table>

**Upper-Division Major**

48 UD units required, distributed as follows: 48

I. Core Courses:
   A. Genetics: MCDB 101A-B
   B. General Microbiology: MCDB 131-131L
   C. Bacterial Pathogenesis: MCDB 132-132L
   D. Biochemistry: MCDB 108A (or W 108A) and 108B-C
   E. Virology: MCDB 134
   F. Immunobiology and Medical Immunology:
      MCDB 133 (133L strongly recommended) or 138 (or W 138)

II. Additional units from the following to bring the total in the UD major to 48: MCDB 101AH, 101L, 108AH, 108AL, 111, 111H, 133H, 133L, 134H, 135, 135H, 140L, 194BG, 197, 199 (a maximum of 4 units of MCDB 194BG, 197 and 199 combined can be applied); EEMB 111, 111H, 144, 145, either 144L or 150A (not both) 

### 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.