MICROBIOLOGY MAJOR, B.S. – 2019-2020

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 Description</th>
<th>Units Yet to Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 1A-AL-B-CL (or 2A-AC-B-BC-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>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>
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<tr>
<td>One of the following: PSTAT 5LS or 5A or Math 4A</td>
<td>4 or 5</td>
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<tr>
<td>Physics 6A-AL-B-CL</td>
<td>12</td>
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</tbody>
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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, 101BH, 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.

DOUBLE MAJORS
With the approval of each department chairperson, up to a total of 8 units may be applied simultaneously to both UD majors.