**CELL AND DEVELOPMENTAL BIOLOGY 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 the 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 that an entire sequence must be completed as shown 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-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 course from: PSTAT 5LS or 5A or Math 4A</td>
<td>4 or 5</td>
</tr>
<tr>
<td>Physics 6A-AL-B-CL-C-CL</td>
<td>12</td>
</tr>
</tbody>
</table>

### UPPER DIVISION MAJOR

48 UD units required, distributed as follows: 48

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

**Note:** Courses with an asterisk (*) are listed in more than one area, but they may be applied to only one area.

- **A.** Genetics: MCDB 101A-B
- **B.** Biochemistry: MCDB 108A (or W 108A) and 108B-C
- **C.** Cell Biology: MCDB 103
- **D.** Developmental Biology: Select two courses from: MCDB 112, 118, 153
- **E1.** One course from MCDB 103L*, 112L*
- **E2.** One course or course sequence from: MCDB 101L, 103L*, 109L, 112L*, 126A-AL, 126B-BL, 132-132L, 133-133L, 140L, 161L
- **F.** Electives: Additional UD courses in MCDB, EEMB, or Chemistry 141, 161 to bring unit total to 48

**Note:** Students are encouraged to take MCDB 135 and/or MCDB 146 within their elective requirements.

*The following courses do not count toward upper-division major credit:*

- EEMB 182, 183, 184, 189; MCDB 183, 184, 194KF

*In addition, no more than 8 units of the following courses combined will apply to the major:*

- EEMB 185-199; MCDB 185-199. BMSE may be accepted by petition only.

### MAJOR REGULATIONS

- **PREREQUISITES**
  - Check the *General Catalog* for the prerequisites to all listed courses.
- **P/NP GRADING OPTION**
  - Not allowed for any major course (Prep or UD major), 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.