

MOLECULAR & CELLULAR BIOLOGY MAJOR, B.S. – 2025-2026
BIOCHEMISTRY-MOLECULAR BIOLOGY EMPHASIS

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.

Notes: Hyphens indicate an entire sequence or combination must be completed as shown to fulfill an area requirement.
 A single course can satisfy only one requirement.

PREPARATION FOR THE MAJOR

UNITS TO COMPLETE

Chemistry 1A-B-C and 2AL-BL (or 1A-AL-B-BL-C-CL or 2A-AC-B-BC-C-CC)	15
MCDB 1A-B, EEMB 2-3, and MCDB 1LL and EEMB 2LL	17
Chemistry 6AL and 109A-B-C or 109AH-BH-CH.....	15
Mathematics 3A-B and 4A and 6A	16
Physics 6A-AL-B-BL-C-CL	12

UPPER-DIVISION MAJOR

48 upper division units required, distributed as follows 48

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

- I. A. Genetics: MCDB 101A-B 8
 - B. Biochemistry: MCDB 108A-B 8
 - C. Biochemistry-Computational & Systems Biology: MCDB 108C 4
 - D. One Cell Biology course: MCDB 103, 126B, 131, or 135 4
 - II. 1. Physical Chemistry: Chemistry 112A (recommended) or 113A; and MCDB 123 8
 - 2A. Biochemistry-Molecular Biology Lab: MCDB 109L* or 140L* (should not be taken concurrently) 4
 - 2B. One Laboratory or course-lab sequence from: MCDB 101L, 103L, 109L*, 112-112L, 126-126AL, 126B-126BL, 133-133L, 140L*, 3 units of either 197 or 199 3-9
 - III. Additional units within MCDB or from the following to bring the total upper-division units in the major to 48:
 Chemistry 141, 143, 145, 147, 161, 162A, 162B; Psychology 162 3-9
- Courses outside of MCDB will likely require additional prereqs within their own departments.***

NOTES: The following courses do not count toward upper-division major credit: MCDB 110, 183, 184, 194D, 194KF, 194MP, 194MR. In addition, no more than 8 units of the following courses combined will apply to the major: MCDB 185-199. Students cannot double major with the Bio B.A. or B.S. nor have more than one emphasis within MCDB.

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.
- 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.