

MOLECULAR & CELLULAR BIOLOGY MAJOR, B.S. – 2024-2025
CELL AND DEVELOPMENTAL 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 or 34A-B	8 _____
One of the following: PSTAT 5A or PSTAT 5LS or Math 4A	4 or 5 _____
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. Cell Biology: MCDB 103 4 _____

- II. 1. Three courses from the following : MCDB 112, 118, 135, 146, 153 12 _____
- 2A. One Cell or Developmental Lab: MCDB 103L* or 112L* (should not be taken concurrently) 3-4 _____
- 2B. One Laboratory or course-lab sequence from: MCDB 101L, 103L*, 109L, 112L*(recommended), 126-126AL, 126B-126BL, 132-132L, 133-133L, 140L, 3 units of either 197 or 199 3-8 _____

- III. Additional units within MCDB or from the following to bring the total upper-division units in the major to 48
Chemistry 141, 161; EEMB 127, 131, 146, 157A; Psychology 162 0-6 _____
- Courses outside of MCDB may 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, 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.