

Baccalaureate Degree

Students graduating with a baccalaureate degree from MiraCosta College shall possess sufficient depth in the field of applied biomanufacturing to contribute to entry-level career positions within the region. This depth will be provided through the completion of at least 24 lower-division and 34 upper-division semester units in the major. The college catalog will clearly differentiate upper-division and lower-division coursework.

Upper-division courses will be open only to students enrolled in the baccalaureate degree program.

- A. Upper-division courses will require lower-division knowledge and apply that knowledge as demonstrated measures of critical thinking through writing, oral communication, or computation.
- B. Upper-division courses will typically have prerequisites that have been established using content review of the entry skills necessary to be successful as outlined in the California Code of Regulations.
- C. Upper-division courses may encompass research elements, workforce training, apprenticeships, internships, practicum, or capstone projects.

The Courses and Programs Committee (CPC) determines which courses can be used to implement the district's goals for the baccalaureate degree. The course approval process is detailed in the Courses and Programs Committee Handbook.

Lower-Division General Education

Students in the baccalaureate program must complete 37-to-41 semester units of lower-division general education as part of the lower-division course requirements for the baccalaureate degree. Students may satisfy this requirement by completing one of the following:

- A. The California State University General Education (CSU-GE) Breadth pattern (Plan B)
- B. The Intersegmental General Education Transfer Curriculum (IGETC) pattern (Plan C).
- C. A bachelor's degree from an institution accredited by an agency recognized by the U.S. Secretary of Education.

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Students enrolled in the baccalaureate program who have not completed the CSU-GE or IGETC pattern must complete any remaining CSU-GE or IGETC Areas.

Placement of courses on CSU-GE and IGETC is governed by the California State University (CSU) and University of California (UC) and will be in accordance with CSU and UC transfer submission and acceptance policies.

Lower-division general education courses for the baccalaureate degree will fulfill the following criteria related specifically to the designated CSU-GE or IGETC Area:

- A. CSU-GE Area A, English Language Communication &

- D. An upper-division course that is determined comparable by faculty to a lower-division CSU-GE or IGETC-approved course.
- E. Prior completion of the CSU-GE or IGETC general education pattern for a bachelor's degree at any CSU or UC.

A single course may be used to complete both a general education requirement and a lower-division major requirement.

Upper-Division General Education

Students in the baccalaureate program must complete nine semester units of upper-division general education as part of the upper-division course requirements for the baccalaureate degree. Upper-division general education courses will enhance the foundational knowledge gained by students through the completion of the lower-division general education program. The further development of writing, leadership, and/or computational skills will supplement the major specific skill set that biotechnology employers seek in their employees.

- A. Students will be provided with an upper-division general education curriculum designed to be:
 - 1. An integrative learning experience that makes connections among the disciplines.
 - 2. Intentional, engaging, and meaningful.
 - 3. Contextualized to the major and global workplace.
- B. Courses will be offered in at least two disciplines outside of the biomanufacturing major.
- C. At least one course will have an emphasis in written or oral communication or on further development of computation skills and analysis.
- D. Courses will be open only to those students enrolled in the baccalaureate degree program.
- E. Comparable upper-division courses from other