The study of biology as an undergraduate and in graduate or professional school can lead to a diversity of careers with considerable employment opportunities.

The entire health care field is strongly based on biology. Biologists in conservation careers work toward preserving the natural world for future generations. Biology educators teach classes in schools, parks, and nature centers and direct research in colleges, universities, museums, and zoos.

There are many fields in which biologists can combine their scientific training with other interests, such as forensics; politics and policy; sales and distribution; science writing; scientific illustration; biotechnology; and bioengineering.

Students must have a minimum grade point average of 2.70 in transferable college courses.
### General Education & Major Prep Courses (60 units)

The following courses are suggested as co-courses for a Bachelor of Science in Biology.

**A course may be chosen from the [CNAS General Education Pattern](#) (see attached).

**MP** = Major Prep

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>C</th>
<th>IP</th>
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<tbody>
<tr>
<td>ENGL 101 Freshman Composition: (Area 1, Group A)</td>
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<td>MATH 105 College Algebra: (Area 2, Math)</td>
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<td><strong>Humanities Course: (CNAS Requirement) or Language 101</strong></td>
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<tr>
<td><strong>Social Science Course: (ANTH, PSYC OR SOC- CNAS Requirement)</strong></td>
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<td>ENGL 103* or PHIL112* Critical Thinking: (Area 1, Group B)</td>
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<td>MATH 110 Pre-calculus: Prerequisite for MP (Not UC transferrable)</td>
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<td>MATH 211 Calculus I: MP</td>
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<td>CHEM 101 General Chemistry I: MP</td>
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<td>MATH 212 Calculus II: MP</td>
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<td>CHEM 102 General Chemistry II: MP</td>
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<td>BIO 150 General Biology I MP</td>
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<td>BIO 151 General Biology II: MP</td>
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<td>PHY 201 Mechanics and Wave Motion: MP</td>
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<td>CHEM 112 Organic Chem 1 MP</td>
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<td><strong>Ethnic Studies Course: (CNAS Requirement) or ENGL 145 for Education Track</strong></td>
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<td>PHY 202: Electricity and Magnetism: MP</td>
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<td>CHEM 113 Organic Chem 2 MP for Biophysics</td>
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</table>

### ADDITIONAL REQUIREMENTS

1. Application must be submitted between November 1st to November 30th, one year prior to transfer.
2. All students should meet with a counselor at least once a semester to update their plan and review admission requirements to the university of their choice.
3. **The IGEC is not accepted for majors housed in the College of Natural and Agricultural Sciences (CNAS). Courses taken for IGEC will be applied to the College’s breadth pattern as appropriate. Please see the attached for the General Education breadth requirements for CNAS.

*Every effort is made to keep this information current. Articulation is an ongoing project and subject to modification. Please use this form as a guideline and consult with a university representative or Mt. San Jacinto College Counselor. Also refer to [www.assist.org](http://www.assist.org) for the current IGEC/CSU GE Breath list for MSJC.*

M. Angeles 4/30/13
Advising Notes:
Course work taken to satisfy a UCR breadth category must carry at least 3 semester or 4 quarter units of credit.

Unless otherwise indicated, the requirements listed below apply to both the B.A. and the B.S. degree.

This College requires students to complete the native college breadth pattern, rather than the IGETC.

Students planning to transfer into this College are encouraged to focus primarily on completion of lower division major preparation, prior to transfer. Some majors in this college require that specific lower division major course work has been completed prior to transfer. Refer to the "By Major" agreements for details about lower division preparation for these majors.

Questions regarding the applicability of community college courses to the UCR breadth requirements for this College should be directed to the College of Natural and Agricultural Sciences, Student Academic Affairs at (951) 827-7294.

☐ English Composition (both are required)
(Grade of C or better required)
ENGL 101 or 101H
ENGL 103 or 103H

☐ Natural Sciences & Mathematics (5 courses required)
(These requirements are normally satisfied through completion of the lower division requirements for the major.)
One course in Mathematics, Statistics or Computer Science
One course in Biological Sciences (Biochemistry, Biology, Botany, Entomology). A lab component is required.
One course in Physical Sciences (Chemistry, Physics, Earth Sciences- excluding cultural geography courses). A lab component is required.
Two additional courses from the Biological and/or Physical Sciences or physical or biological sciences courses offered through the Environmental Sciences department.
(Mathematics majors: See the Mathematics major preparation agreement for specific information regarding satisfying breadth requirements.)

☐ Ethnic Studies (choose one)
ANTH 125, HIST 150, 150H, 160, SOCI 106 or 115

☐ Social Sciences:
B.S. Degree (3 course required)
One course in Economics or Political Science
PS 101, 101H, 102, 102H, 103, 103H, 104, ECON 201, 201H, 202, 202H
One course in Anthropology; Psychology; or Sociology
One course from Economics; Political Science; Anthropology; Psychology; Sociology; Cultural Geography; or from social science-based courses in the disciplines of Environmental Sciences; Human Development; or Women's Studies.
Any course listed above or HIST 115

☐ Social Sciences:
B.A. Degree (5 course required)
One course in World History
HIST 103, 103H, 104, 104H, 106 or 106H
One course in Fine Arts. (Such courses include Art; Art History; Dance; Film and Visual Culture; Music; Theatre; or Creative Writing courses in poetry, fiction or playwriting.)
ART 100, 101, 101H, 102, 102H, 103, 103H, 104, 104H, DAN 100, 125, 133, 140, MUS 100, 100H, 106, 107, 108, 109, ENGL 130, 130H, 225, 225H or 235, THA 101, 101H, 102, 135, 136, 137, 150, or 155
Two courses from Literature; Philosophy; or Religious Studies
One course from any of the following: Fine Arts (as defined above); History; Literature; Philosophy; Religious Studies; or a language other than English at the 3rd semester or 4th quarter level; or a humanities-based course in the discipline of Ethnic Studies, Linguistics, Latin American Studies; or Women's Studies.
Any course listed above or COMM 100, HIST 101, 102, 107, 108, 111H, 112H, 126, 127, 136, 140, 151, 154, ENGL 250, 250H, SPAN 201, 201H, FREN 201 or ASL 103
B.S. Degree (3 course required)
One course in World History
*HIST 103, 103H, 104, 104H, 106 or 106H*
One course from Literature; Philosophy; Religious Studies; or the Fine Arts; (Art, Art History, Dance, Film and Visual Culture, Music, Theatre, or Creative Writing courses in poetry, fiction or playwriting).

*ART 100, 101, 101H, 102, 102H, 103, 103H, 104, 104H, DAN 100, 125, 133, MUS 100, 100H, 106, 107, 108, 109, ENGL 130, 130H, 225, 225H or 235, THA 101, 101H, 102, 135, 136, 137, 150, or 155*

One course from any of the following: Fine Arts (as defined above); History; Literature; Philosophy; Religious Studies; or a language other than English at the 3rd semester or 4th quarter level; or a humanities-based course in the discipline of Ethnic Studies, Linguistics, Latin American Studies; or Women's Studies.

*Any course listed above or COMM 100, HIST 101, 102, 107, 108, 111H, 112H, 126, 127, 136, 140, 151, 154, ENGL 250, 250H, SPAN 201, 201H, FREN 201 or ASL 103*

Foreign Language: (Required for the B.A. Degree ONLY)
This requirement can be satisfied in one of two ways:
1) By demonstrating 2nd semester or 3rd quarter proficiency in each of two different languages, with "C" grades or better.
*SPAN 102, 102H, FREN 102, 102H or ASL 101*

OR

2) By demonstrating 3rd semester or 4th quarter proficiency in one language, with "C" grades or better. (Note: Biology and Neuroscience majors earning the B.A. degree must complete this option.)
*SPAN 201, 201H, FREN 201 or ASL 103*

Additional Breadth Course work for students pursuing the B.S. Degree:
Students pursuing the B.S. degree are not required to complete a foreign language, but they do need to complete an additional 16 quarter units of substantive course work related to their major. The additional course work is specified by the major department after transfer.

NOTE:
Students pursuing a BA degree in Biology will also need to complete the equivalent of 4th quarter proficiency (generally third semester) in a language other than English, as part of the breadth requirements for this degree.

This document is not created nor monitored by UC Riverside. It has been created by the MSJC Counseling Department for the sole purpose of transfer advising of GE Breadth into the College of Natural & Agricultural Sciences (CNAS). Courses on this document are subject to change. Please see www.assist.org.