

Mission Statement for Biological Sciences Bachelor of Arts (B.A.) and Bachelor of Science Degrees (B.S.)

The mission of the biological sciences programs at Chaminade University of Honolulu includes a recognition of its Catholic/Marianist tradition and addresses the five principles that make Chaminade unique in its curriculum. Those principles are providing a quality education; educating for formation in faith; in maintaining family spirit; working towards service, peace, and justice; and preparing students for adaptation and change. The biology curriculum has successfully offered a broad based, quality education for years. This has resulted in our graduates successfully applying to graduate and professional schools, as well as employment in a community. Faith is involved in many educational pursuits and biology works unceasingly towards improving the human condition and society in which we live. The laboratory environment of the program encourages and fosters a family spirit amongst biology students and faculty. Additionally, many students and faculty offer their talents and skills in community service projects and voluntary experiences at health or scientific institutions. Finally, the very nature of science, including the cornerstone of the scientific method encompasses adaptation and change, fundamental components of a scientific and biological education.

Program Outcomes for the B.A. and B.S. Degrees In the Biological Sciences

Upon completion of the B.A. or B.S. Degree program in the Biological Sciences, the student will demonstrate an understanding of the following.

1. The scientific method and its application in the Biological Sciences.
 - a. The skills and competencies in this area are conveyed to the student through the basic science courses. Upper division biology courses include in their course content discussions of the scientific approaches contained within their respective subdiscipline areas, e.g. genetics or ecology. Further experience to actual applications takes place in field experience and voluntary community service.
 - b. Relevant Courses: BI 203/203L, 204/204L, 210, CH 203/203L, 204/204L, 323/323L, 324/324L, PHY 151/151L, 152/152L
 - c. Support Courses: BI 287, Upperdivision Biology Courses, MA 210, 211, 331
2. Living organisms and their relationship to each other and the environment.
 - a. The student is exposed to the structure and function of living organisms through study of molecules, cells, tissues, systems, populations, and ecosystems. The diversity of living organisms will be presented to the student for consideration including, but not limited to Monera, Protists, Fungi, Plants, and Animal Kingdoms. With this exposure, the student will be prepared to make decisions concerning themselves and other living organisms.
 - b. Relevant Courses: Required courses for the B.A. and B.S. in Biology
 - c. Elective Courses: BI 103/103L, 110/110L, 115/115L, 130/130L, 131/131L, 151/151L, 162/162L, 331/331L, 353/353L, 362/362L, 363/363L, 454/454L
 - d. Support Courses: CH 203/203L, 204/204L, 323/323L, 324/324L, 360/360L, PHY 151/151L, MA 210, 211, 331
3. Theoretical and practical experiences in Biology.
 - a. Biological principles, based on theory, are taught in each biology course. These principles are enhanced by student projects in courses, directed research experiences both campus based and at external institutions, field work, and credit based volunteer experience in community and professional organizations. This correlates the theoretical in coursework to the practical experiences in the biological field.
 - b. Relevant Courses: Required courses for the B.A. and B.S. in Biology, BI 190, 287, 454/454L, 487, 496
 - c. Elective Courses: as in 2 c.
 - d. Support Courses: as in 2 d.
4. Opportunities available in the Biology Discipline.

- a. There are specific courses in the Biology curriculum that include exposure to career and professional opportunities, e.g. BI 190-Pre-Med and Pre-Health Seminar, BI 287/487 Field Experience and BI 490-Senior Seminar. Students receive credit for voluntary work at community and professional organizations in specific career areas, e.g., a dentistry office for a pre-dental student. Students interested in elementary or secondary science education have specific courses to follow and secondary science teachers desiring to teach biology must major in biology. Additionally, students are provided information about different areas of Biology through a series of required major courses, like BI 370/370L-Cell & Molecular Biology.
- b. Relevant Courses: Required courses for the B.A. and B.S. in Biology, BI 190, 287, 487, 490
- c. Elective Courses: as in 2c.
- d. Support Courses: as in 2d.

RI 2/14/06