DEPARTMENT OF BIOLOGY

Purposes

The objectives of the Biology department coincide with the Point Loma Nazarene University mission summarized in the phrase: *To Teach, To Shape, To Send*.

To Teach: The department's commitment is to provide students the opportunity to build a broad foundation in the major disciplines of Biology, in the process of science skills, and in the critical thinking/quantitative skills that are required to apply their education to real world settings.

To Shape: In addition to the formal academic interactions, each student has opportunities to enter into mentoring relationships with department faculty through advising, lab assisting, research experiences, and departmental social functions. In these contexts, students can expect to dialogue about issues relating to their own personal and professional goals, the interface between the field of biology and society, and the relationship between faith and science.

To Send: The graduates of the Biology department will be able to apply both their faith and education in biology-related professions such as medicine, allied health fields, education, or industry. They will feel confident that they have been well prepared to contribute in a positive way in these fields, and society in general.

Tradition of Excellence

The Department of Biology is dedicated to the success of the students, and offers a wealth of opportunities for students who are interested in pursuing work in science related fields. For students whose interests and academic needs lie in both biology and chemistry, an interdepartmental major in Biology-Chemistry has been designed to prepare students for biochemistry, immunology, molecular biology, pharmacology, physiology, medicine, and dentistry. Biology students have the opportunity to work side-by-side with professors doing faculty-assisted research projects, and may become co-authors on scholarly papers in national and international scientific journals. Many students present research at various science conferences. Students also have access to sophisticated instrumentation and computational resources for use in science courses and research labs.

All of these opportunities have been given to students through the help of numerous grants from governmental agencies such as the National Institutes of Health and the National Science Foundation, various private organizations including the Howard Hughes Medical Institute, cooperation from university administration, and strong financial backing by Biology and Chemistry alumni. Alumni of the Departments of Biology and Chemistry have recently contributed more than $100,000 per year in support of science instruction and research programs. Students who graduate with a degree from the Department of Biology leave PLNU prepared for graduate schools or careers in industry. Over the last 25 years, approximately 90 percent of PLNU's applicants have gained acceptance to medical schools (roughly twice the national average); the acceptance rate for Biology and Chemistry students applying to graduate (M.A., M.S., and Ph.D.) and dental school programs is over 95 percent.

Au Sable Environmental Field Studies Program

Summer field courses in environmental biology are offered by the Au Sable Institute of Environmental Studies, a Christian organization providing field-based classes that emphasize environmental stewardship at over 50 participating Christian colleges and universities. Courses are offered during a 3-week May term and two 5-week summer sessions from May to early August. May term students take one course (4 units) at the Great Lakes or Costa Rica campus; Summer Session students take 2 courses (8 units) at the Great Lakes campus (summer session I and II) or Pacific Rim campus (summer session II). All courses transfer in as upper-division electives for the Environmental Science B.S., Biology B.S./B.A., and Environmental Studies (Biology emphasis) B.A. majors, and for the Environmental Biology and Sustainability Studies minors. [An off-campus field-based program like Au Sable is a requirement for Environmental Science majors.] Financial aid is available through Au Sable. Point Loma Nazarene University is a Sustaining Partner with Au Sable, which means that PLNU students are eligible for additional financial aid and access to high-demand courses. Interested students should contact both the Study Abroad Office and the Au Sable campus rep (Dr. Mike Mooring) for further information and to start your application. To see the course offerings, go to www.ausable.org/college (http://www.ausable.org/college/).

Faculty

Dianne Anderson, Ph.D.
University of California, San Diego and San Diego State University

Walter Cho, Ph.D.
Massachusetts Institute of Technology and Woods Hole Oceanographic Institution

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Brandon Sawyer, Ph.D.
Arizona State University

Heidi Woelbern, Ph.D.
University of California, Los Angeles

To view requirements for majors, minors, and certificates, see the Degree Program Information (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/degree-program-information/) page.

- Biology, B.A. (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/biology-ba/)
- Biology, B.S. (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/biology-bs/)
- Biology-Chemistry, B.S. (Biology) (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/biology-chemistry-bs/)
- Environmental Science (Biology), B.S. (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/environmental-science-biology-bs/)
- Biology: Cell and Molecular Biology Minor (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/biology-cell-molecular-biology-minor/)
- Biology: Environmental Biology Minor (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/biology-environmental-biology-minor/)
- Biology: Organismal Biology Minor (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/biology-organismal-biology-minor/)
- Data Analytics Minor (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/data-analytics-minor/)
- Science-Business Minor (Science Majors - Biology Department) (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/science-business-minor/)
- Science-Marketing Minor (Science Majors - Biology Department) (https://pointloma-public.courseleaf.com/prior-catalogs/2024-2025/tug-catalog/colleges-schools-departments/cnss/bio/science-marketing-minor/)