

Department of Biological Sciences
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<http://www.bgsu.edu/departments/biology/>

Biology, the study of life, encompasses investigations of all aspects of living organisms, including evolution, genetics, cellular structure and function, anatomy, physiology, ecology, behavior, diversity, conservation, host-pathogen interactions, biochemistry, and molecular biology. Biologists study basic aspects of organisms and how they function, how they are adapted to and interact with their environment (both internally and externally), and how they are related to each other through descent with modification from common ancestors. Fields of biology are intimately intertwined with all other areas of natural science as well as the social sciences, philosophy, art, and the humanities. Efforts of biologists have important contributions to an understanding of functioning and adaptations of living organisms as well as to the applied problems and issues facing all inhabitants on planet Earth, such as those involving medical advances, diseases, global changes, agriculture, biotechnology, bioinformatics, environmental management, conservation of species and genetic diversity, and many others.

Learning Outcomes

Upon completion of the baccalaureate degree, students in biology are expected to:

- Understand the basic principles of living systems at the molecular, cellular, and organismal level and how these principles are unified through evolution;
- Understand the nature, methods of acquiring, and limitations of scientific evidence and be able to participate in the process of scientific inquiry;
- Value the importance of living systems, Natural Science in general, and specifically biological science, basic research, and scientific thinking to society;
- Communicate scientific information and reasoning in writing, orally, and in other presentation formats;
- Apply and extrapolate biological science knowledge and skills to address local/global needs and problems