

# DEPARTMENT OF BIOLOGY

The Department of Biology is the hub of the basic biological sciences at the University of Washington. Through research and teaching programs, we investigate the origins, organization, and functions of living systems, from the molecular through the ecosystem level. Our discoveries contribute to a fundamental understanding of the natural world and have applications in fields ranging from the biomedical sciences to wildlife conservation.



The Departments of Botany and Zoology merged in 2003 to form the Department of Biology. This union recognized that biology research and education is best carried out as an integrated field, enabling us to study and decode nature's solutions to highly complex problems as a team.

## Education

With over 1,200 undergraduate majors, the Department of Biology is the largest undergraduate degree program at the University of Washington and the largest STEM degree program in Washington State. Forty percent of our undergraduate majors are engaged in faculty-mentored research projects, and contribute exciting discoveries to their research field. They present their results at university, regional, national and international scientific meetings, and co-author papers in prestigious journals. Through coursework and activities such as research and internships, our undergraduates gain the requisite knowledge and skills for careers in basic and applied research, education, health sciences, environmental sciences, science policy, government, business and the non-profit sector.

The Department of Biology's Ph.D. program includes over 100 graduate students with diverse backgrounds and research interests. Their investigative approaches include, and often combine, theory and experiments in the laboratory and field. The hallmarks of our Ph.D. program include a strong commitment to interdisciplinary training that capitalizes on our broad department and strong relationships with Friday Harbor Marine Labs, the Burke Museum, and the Fred Hutchinson Cancer Research Center, among others. With their faculty mentors, graduate students design individualized programs of advanced coursework and research in a wide array of areas. Graduate study provides students with the background necessary to assume leading positions as independent researchers and teachers in academic settings, government, or private industry.

## Faculty

Department of Biology faculty honors include:

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| 3 MacArthur Fellows  | 6 CAREER Awards                        |
| 4 National Academy of Science Members                          | 8 Distinguished Teaching Awards        |
| 6 American Academy of Arts & Sciences Members                  | 3 Distinguished Graduate Mentor Awards |
| 14 American Association for the Advancement of Science Fellows | 6 Undergraduate Research Mentor Awards |
| 19 Guggenheim Fellows  | 1 Professor of the Year   2007         |
| 1 Sloan Fellow   | 6 Endowed Chairs/Professors            |
| 1 Heinz Award  | 2 Allen Distinguished Investigators    |
|  | 2 PECASE Awards                        |
|  | 2 International Cosmos Prizes          |

## STUDENTS (Spring 2017)

1,131 Undergraduate majors

82 Graduate students

\$200K+ Departmental scholarships, fellowships, and prizes awarded in 2016-2017

## DEGREES AWARDED (Autumn 2016- Summer 2017)

601 Bachelor's degrees

18 PhD degrees

## FACULTY (Autumn 2017)

56 Academic Faculty

3 Research Faculty

5 Joint Faculty

13 Lecturers

38 Post-Doctoral Researchers

39 Emeritus Faculty

29 Affiliate/Adjunct Faculty



## Research

The Department encourages research and teaching collaborations that link faculty, postdoctoral researchers, graduate students, undergraduates and even high school students with colleagues in other units on the UW campus and beyond. These collaborations reflect the role of biology as a keystone science relevant to other disciplines such as physical and mathematical sciences, engineering, and policy. One third of our faculty are appointed to units such as Psychology, Computer Science, the Burke Museum, the School of Medicine and College of the Environment in addition to Biology. Examples of research topics in the Department of Biology include:

- examining neuronal processing of scent, and how it drives animal behavior;
- developing active learning strategies that improve student performance in college science courses;
- investigating the ability of vegetation to modify climate;
- exploring how organisms alter their environment, which in turn influences their evolution;
- understanding the signaling network plants use to change their form in response to light; and
- quantifying human and environmental impacts on endangered species, and collaborating to develop conservation policies.

## Outreach

The Department of Biology has formed intellectual partnerships across campus and with colleagues at other institutions, from collaborations within the natural and social sciences to those in engineering, medicine, law, and business. The Department also works in partnership with medical facilities, biotech companies, environmental conservation organizations, and local, state, and federal government agencies. Biology undergraduates have interned at the Woodland Park Zoo, Seattle Aquarium, Fred Hutchinson Cancer Research Center, and several private biomedical institutions.

## A Vision for the Life Sciences

The Department of Biology has a bold vision to transform biological research and teaching. Through a new Life Sciences Complex (LSC), we will spark collaborations across disciplines. We will tackle pressing challenges through ambitious research spanning scales from molecules to ecosystems. We will engage students in hands-on research and redefine the classroom experience.

With its completion in 2018, the new LSC will be a leading environment for modern-age research and teaching at the UW, enabling us to prepare the next generation of scientists and industry leaders while catalyzing boundless scientific enterprise.

## Support Biology

Gifts to the Department of Biology play a very significant role in fulfilling our goals to educate the next generation of global citizens, to sustain world-class research programs and to attract and retain the best faculty and students. If you are interested in making a tax-deductible gift to UW Biology, please visit <https://www.biology.washington.edu/about-us/support-uw-biology> for more information or contact us at [uwbio@uw.edu](mailto:uwbio@uw.edu).

## RESEARCH AREAS

Developmental Biology  
Ecology and Conservation Biology  
Evolution and Systematics  
Genetics and Comparative Genomics  
Marine Biology  
Mathematical and Computational Biology  
Molecular and Cellular Biology  
Neurobiology and Behavior  
Paleobiology  
Physiology

## UNDERGRADUATE AWARDS (Since 2010)

25 Mary Gates Scholars (2015-16)  
5 Bonderman Fellows  
3 A&S Dean's Medalists  
2 President's Medalists

## GRADUATE AWARDS (2016)

8 NSF Fellowships  
5 NIH Training Grants  
4 NSF DDIG Fellowships  
5 ARCS Fellowships  
3 IGERT Fellowships



Life Science Complex rendering by architects Perkins+Will

last update: December 2017