



U.P. BIOLOGY

Institute of Biology College of Science

University of the Philippines
Diliman, Quezon City
Philippines

Facilities

The Institute of Biology (IB) is equipped with facilities for quality teaching and research. These include equipment for molecular genetics, cell culture, microbiology, ecology, and physiology. As of 2022, IB has 15 teaching laboratories utilized by both faculty members and students. Likewise, IB currently has 20 research laboratories managed by the Institute's Ph.D. faculty.

The Institute also has an animal house, arboretum, greenhouse, herbarium, and both vertebrate and invertebrate museums.

Linkages

Researches in IB are supported by the UP NSRI, UP Diliman OVCRD, UP OVPA, ASEAN Center for Biodiversity, CHED, DOST, DA-Biotech, DA-ATI, DA-BAR, DA-OSEC, DENR-BMB, DENR-EMB, and the Energy Development Corporation. The Institute also has research collaborations with other UP units, the Field Museum, SEAFDEC, State Universities and Colleges, and other Government and Non-Government Organizations.

Extension

IB regularly conducts seminar-workshops for the benefit of secondary and tertiary school teachers, researchers in the different fields of biological sciences, and the local community. Every year, an academic group is involved as organizers or as resource persons in such seminar-workshops. The Institute is also regularly tapped by different government agencies, the NGO community and the private sector to provide scientific advice and other services.

For more details, visit

Website: <https://biology.science.upd.edu.ph/>
FB Page: <https://www.facebook.com/UPDBiology>

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Research Agenda

Tropical Biodiversity from Molecules to Ecosystems:
An Integrative Approach towards Sustainable
Development

Research Areas:

1. Biodiversity Science

Databasing, propagation, banking, and genetic assessment of Philippine biodiversity

2. Bioinformatics

Analysis of biological data from molecules to ecosystems

3. Biopharmacology and Bioindustry

Utilization of natural products and biotechnology for drug discovery, food security, and sustainable development

4. Cell Signalling

Cellular processes in response to chemical signals and environmental stressors

5. Climate Change Ecology

Ecological impacts of climate change and testing adaptation strategies

6. Forensic Biology

Development of biological tools and database for forensics use, with emphasis on tropical biodiversity

7. Genetics of Ontogeny

Gene expression regulation and networking during the development of model organisms

8. Infection and Immunity

Molecular mechanisms of infection and immunity for therapeutic and diagnostic applications

9. Restoration Ecology

Testing options for restoring degraded ecosystems

10. Urban Ecology

Ecological impacts of urban expansions and sustainability of urban ecosystems

Mandate

The Institute of Biology was established in 1986 when the former Departments of Botany and Zoology merged. The merger was in response to the need to consolidate the facilities and manpower necessary for the development of an institution of higher learning and research in the various fields of basic and applied biology in the Philippines.

Vision

The Institute of Biology, College of Science, University of the Philippines Diliman as the leading Institution in Integrative Biology in the ASEAN region

Mission

1. To provide world-class undergraduate and graduate education in Integrative Biology;
2. To conduct innovative research in Integrative Biology that contributes to sustainable national and regional development; and
3. To provide expertise in Biology to enhance capability, transfer technology, and inform policy that address the needs of stakeholders.

Educational Philosophy

We, at the Institute of Biology, believe that our deeper understanding of Biology will help our society tackle universal problems of life on earth. As an academic institute, we are committed to provide quality education with a vision to integrate different disciplines in our study of life. We are bound by our common desire to serve the nation and humanity by educating learners of Biology to be able to generate, integrate and translate knowledge in various capacities for sustaining diverse forms of life.

Recognition and Awards

For several years, the Institute of Biology (IB) has been declared by the Commission on Higher Education as a **Center of Excellence in Biology**. Likewise, the BS in Biology Programme of the Institute had successfully completed the **ASEAN University Network-Quality Assurance (AUN-QA) Programme Assessment** last 2018.

IB has produced five national scientists, six outstanding young scientists (OYS), 16 academicians, and one recipient of the Environmental Science Award by the National Academy of Science and Technology (NAST). In addition, it has also fostered 12 awardees of The Outstanding Young Men (TOYM), four awardees of The Outstanding Women in Nation's Service (TOWNS), and two Outstanding Teacher awardees given by the Metrobank Foundation, Inc. The Institute has also produced seven UP Scientists, six Gawad Tsanselor sa Natatanging Guro, and one Gawad Tsanselor sa Natatanging Kawani, all awarded by the University of the Philippines.

Organization

The Institute is headed by the Director who is assisted by the Deputy Director for Administration, Deputy Director for Academic Affairs, and Deputy Director for Research and Extension. They also serve as *ex-officio* members of the Executive Committee (EC), which includes the heads of the different academic groups. The Director chairs the EC, Undergraduate Committee, Graduate Committee, and the Tenured Faculty and is the IB representative to the College of Science Executive Board. As of 2022, there are 40 faculty positions in the Institute, with 30 of these held by Ph.D. degree holders.

The Institute houses five academic groups, namely, Developmental Biology, Ecology and Taxonomy, Genetics, Microbiology and Cell Biology, and Physiology.

Degree Program

IB provides quality education in the biological sciences at the tertiary and graduate levels, offering the following degrees:

1. Bachelor of Science (B.S.) in Biology
2. Diploma in Biology
3. Master of Science (M.S.) in Biology
4. Master of Science (M.S.) in Microbiology
5. Doctor of Philosophy (Ph.D.) in Biology

B.S. in Biology students may choose between two specialization tracks, namely Cellular and Organismal Biology, and Ecology, Evolution and Biodiversity.

M.S. and Ph.D. in Biology students may specialize in any of the following areas: Cell and Molecular Biology, Developmental Biology, Ecology and Taxonomy, Genetics, Microbiology, and Physiology.

The Ph.D. Biology program has three (3) options: Regular Ph.D. Biology (Option 1, for students with M.S. degree), Straight Ph.D. Biology (Option 2, for students with B.S. degree and with honors) and Ph.D. Biology by Research (Option 3, for students with M.S. degree and publication in ISI journal).

