

BIOLOGÍA

Harvard (Master's degree)

<https://www.extension.harvard.edu/academics/graduate-degrees/biology-degree>

KEY LEARNING OUTCOMES Through the master's degree in the field of biology you:

- Enhance your *understanding* of the biological sciences, including molecular biology, genetics, genomics, cell biology, physiology, neurobiology and behavior, evolution, and ecology.
- Build a foundation in *scientific practice*, including experimental or case study design and implementation, scientific data collection and analysis, and ethical practices.
- Develop advanced *professional communication skills*, with an emphasis on sharing scientific results in written, oral, and graphical forms.

University of Ottawa

<https://science.uottawa.ca/biology/biology-program-learning-outcomes>

By the end of this program, students will be able to...

Depth and Breadth of Knowledge

- Explain the chemical and physical underpinnings of life;
- Explain and integrate the key concepts of living systems such as biological diversity and its evolution, cellular organization, transmission of biological information, structure-function relationships, and functioning of ecological systems;
- Apply the scientific method including formulating a hypothesis, designing studies, and drawing conclusions.

Knowledge of methodologies

- Demonstrate a set of core field and laboratory-based observations, measurements and sampling techniques;
- Identify and depict patterns in biological data;
- Acquire, process and analyze data using appropriate bibliographic, mathematical and statistical techniques.

Application of knowledge

- Acquire and collate the information and data relevant to a given biological question and objectively interpret them to draw an informed conclusion;
- Use key concepts and methodologies in applied situations ranging from advanced laboratory and field courses to work and research settings.

Communication skills

- Develop and defend logical, coherent arguments;
- Disseminate biological information in written and oral format to scientific and non-scientific audiences.

Awareness of limits of knowledge

- Evaluate recent advances in biological knowledge and recognize the limits of the scientific process.

Autonomy and professional capacity

- Demonstrate professional work habits and ethical conduct when working individually or as part of a team.

University of San Diego

<https://www.sandiego.edu/cas/biology/program/learning-outcomes.php>

Upon completion of their degree students should be able to:

- Demonstrate a *working knowledge* of the foundational concepts of biology, including cellular, organismic, ecological, and evolutionary biology.
- Rigorously and ethically apply the scientific methods to questions in biology by *formulating testable hypotheses* and *gathering and analyzing data* to assess the degree to which they support the hypotheses.
- Employ *quantitative* reasoning skills to present results and explain their significance.
- Demonstrate information literacy by locating, critically analyzing, and discussing *primary literature*.
- Clearly *communicate*, orally and in writing, using a standard scientific format with accurate use of conventions such as citations, graphs, and statistics.