



Course-Based Learning Outcomes and Alignment with General Education Goals

Upon satisfactory completion of this course, the student will be able to:

BIO1101

1. Comprehend the principles of biology

NYCCT Gen Ed Common Core

- Use the arts, sciences and humanities as a forum for the study of values, ethical principles, and the physical world.

CUNY Common Core

- Identify and apply the fundamental concepts and methods of a life or physical science.

2. Appreciate the relationship of the other sciences to biology

- Engage in an in-depth, focused, and sustained program of study
- Understand and appreciate the range of academic disciplines and their relationship to the fields of professional and applied study

3. Understand the scientific method, its history and importance to society

- Employ scientific reasoning and logical thinking.

- Apply the scientific method to explore natural phenomena, including hypothesis development, observation, experimentation, measurement, data analysis, and data presentation

4. Acquire skills in the use of biological equipment and techniques

- Acquire and use the tools needed for communication, inquiry, analysis, and productive work.

- Use the tools of a scientific discipline to carry out collaborative laboratory investigations.

5. Develop expertise in the written and oral expression of biological ideas

- Acquire and use the tools needed for communication, inquiry, analysis, and productive work.

- Gather, analyze, and interpret data and present it in an effective written laboratory or fieldwork report

- Communicate in diverse settings and groups, using written (both reading and writing), oral (both speaking and listening), and visual means, and more than one language.

6. Gain skill in the collection of data and in its mathematical treatment and interpretation

- Derive meaning from experience, as well as gather information from observation.

- Gather, analyze, and interpret data and present it in an effective written laboratory or fieldwork report

- Understand and employ both quantitative and qualitative analysis to describe and solve problems, both independently and cooperatively.

- Identify and apply research ethics and unbiased assessment in gathering and reporting scientific data.

- Gather, interpret, evaluate, and apply information discerningly from a variety of sources.



7. Acquire the knowledge needed for a thorough understanding of the major bioethical issues in society
- Use the arts, sciences and humanities as a forum for the study of values, ethical principles, and the physical world.
 - Understand and apply values, ethics, and diverse perspectives in personal, professional, civic, and cultural/global domains