

Program Assessment Part I.

Mission Statement, Goals, Program level Student Learning Outcomes, & Curriculum Map

Due by: December 15, 2016

Please complete the form below for each program within your department and submit it electronically to the office of Institutional Effectiveness and Strategic Planning at xzhang@york.cuny.edu by the above due date.

Department & Program:	Biology Department
	Biology Program
Department Chair:	Dr. Margaret MacNeil
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I. Program mission statement

The Biology Department at York College seeks to prepare our students with the intellectual and technical skills necessary to succeed in the biological and health sciences. Our courses are designed to develop our students' abilities to acquire and critically interpret relevant information, to formulate scientific arguments, to master important laboratory techniques and statistical methods used in modern research, and to engage and communicate with the scientific community. At York, we offer two programs of study, Biology and Biotechnology. In addition, the Biology Department and Teacher Education Program together offer a Secondary Education Certification Program in Biology.

Both the Biology and Biotechnology degrees serve as a base for a pre-medicine, pre-dentistry, pre-nursing or related pre-professional preparation, and equally well as preparation for the pursuit of graduate degrees (M.S. and Ph.D.) in all areas of Biology. The Biotechnology Program is particularly appropriate for students with career interests in the biomedical sciences. The program serves as preparation for the pursuit of graduate degrees in biotechnology, molecular genetics, molecular biology, cellular biology, biochemistry and other related fields. Graduates with the bachelors degree may also seek jobs on the technician level in areas such as pharmaceutical, hospital and academic research laboratories. The Biology/Secondary Education major is an interdisciplinary program that has had great success in placing high school science teachers.

II. List program goals *[4 recommended; but feel free to add more]*

1. Students understand of the basic principles governing biological organisms and communities.
2. Students understand and are able to apply the scientific method.
3. Students have basic technical laboratory skills to collect data and are able to analyze data using appropriate statistical methods where required.
4. Students are able to communicate ideas and data in writing, or orally, including in standard scientific format.

III. Clearly state the Program level student learning outcomes *[4 recommended; but feel free to add more]*

1. Students will acquire fundamental information about evolution/biological molecules/cells/organisms/biological communities.
2. Students will acquire fundamental knowledge of principles governing evolution/biological molecules/cells/organisms/biological communities.
3. Students will be able to apply their knowledge to explain the reasons underlying the outcome of a biological process.
4. Students will be able to analyze information about biological systems and use it to predict the outcome of a manipulation of a system.
5. Students will be able to use data regarding a biological model to evaluate the plausibility of the model.
6. Students will be able to explain and/or propose an experiment to test a hypothesis or model.
7. Students will be able to explain and/or propose appropriate experimental controls.
8. Students will be able to articulate a hypothesis or model.
9. Students will be able to make reasonable predictions based on a hypothesis or model.
10. Students will be able to summarize the results of an experiment.
11. Students will be able to relate the results of an experiment to their hypothesis and prediction.
12. Students will demonstrate ability to perform basic technical laboratory skills.
13. Students will be able to use appropriate common statistical methods to analyze data, including measures of significance.
14. Students will be able to use common methods of presenting data, such as graphs or data tables, and interpret them.

IV. Curriculum Map (add/delete columns and rows as needed). Begin the curriculum map with at least three major courses, i.e. the introductory course required for students in the major, capstone course and research method course.

*Course #	Program Level Student Learning Outcomes													
	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6	SLO 7	SLO 8	SLO 9	SLO 10	SLO 11	SLO 12	SLO 13	SLO 14
BIO201	x	x	x	x		x	x	x	x	x	x	x		x
BIO202	x	x	x	x		x	x	x	x	x	x	x	x	x

(*Any required activities or learning experiences such as field work, internship, etc. can also be included under the course column.)