

Bergen Community College
ASSESSMENT REPORT FORM

ADMINISTRATIVE AND EDUCATIONAL SUPPORT

Assessment Period: 2014-2016

AES Department/Unit: AS.NSM.BIO Option

Department/Unit Head: Professor Robert Highley

Department/Unit Assessment Liaison: Mary Flannery

Date Submitted:

❖ **Mission/outcome statement or description of the Department:**

The Associate of Science degree program prepares students to enter various biology and biology related programs leading to a bachelor's degree in four year colleges and universities. The recommended program stresses instruction in basic concepts in biology, chemistry and mathematics. Students will acquire laboratory skills that are necessary for upper division studies in the biological sciences.

The Biology Department offers elective courses which enable students to concentrate on organismal biology or biotechnology. We also offer Anatomy and Physiology and Microbiology courses for students interested in the health professions and/or medical, dental or chiropractic schools.

❖ **Department's Core Outcomes:** AS.NSM.BIO Program Goals:

1. Students will be experienced in the organization and classification principles employed in biological sciences
2. Students will acquire knowledge of the physiological and biochemical processes in a variety of organisms and the interrelationships of living system
3. Students will be knowledgeable in the developmental processes which occur in various organisms
4. Students will have a heightened understanding of the unity, variety and evolution of life, and recognition of the importance of the stewardship and preservation of biological diversity
5. Students will acquire laboratory competence by developing and refining technical and analytical skills

6. Students will have the ability to critically examine information and discover new knowledge through rigorous scientific reasoning

SEMESTER 1: CREATING A PROGRAM/UNIT LEVEL ASSESSMENT PLAN

1. Department/Unit's Outcome(s) to be assessed (from the above section):

Number 4: Students will have a heightened understanding of the unity, variety and evolution of life, and recognition of the importance of the stewardship and preservation of biological diversity

2. Means of Assessment:

Since there are no standardized exams which would encompass application of evolution and biological diversity covering the mastery courses BIO 221 Comparative Vertebrate Anatomy, BIO 225 Invertebrate Biology and BIO 224 Environmental Microbiology; our department chose to use a direct method of assessment in the form of locally developed tests. These test questions focus more clearly on the intended learning outcome as it pertains to each mastery course. The assessment questions were given to the students embedded in course exams so there was no bias in question significance.

- Feedback from Vice President:

SEMESTER 2: DEVELOPING ASSESSMENT TOOL (s) and TIMELINE

3A. Describe or attach assessment tool (s), including sources of data, timeline for data collection and how data will be analyzed.

BIO 221, BIO 224 and BIO 225 are offered during different semesters/academic years so the data was collected when the courses were offered during our two year assessment cycle. Data was then analyzed by the subcommittee during the spring break 2016. A preliminary report was then forwarded to the faculty which collected the data for review and comments to compile the "Closing the Loop" or "Use of Results" section of the report. Once the faculty involved in data collection commented, a draft of the final report was then forwarded to entire department for review and additional comments prior to submission.

3B. Desired results department and Vice President would like to see.

The department would like to see 70% of students get each question correct.

- Feedback from CIE:

SEMESTER 3: COLLECTING AND ANALYZING DATA

4. Summary of Results (attach aggregated data table, survey tool, etc., to support the summary)

Results indicate that some of the questions in the assessment did not get 70% correct responses. See the attached Excel Spreadsheet.

5. Recommendations for Improvement:

Assessment questions will be reviewed for clarity, and instruction will be modified in order to more clearly convey the related curricula material.

- Feedback from Vice President:

SEMESTER 4: CLOSING THE LOOP AND SHARING KNOWLEDGE

6. Use of Results:

The same assessment will be repeated for the next cycle with the suggested improvements implemented.

- Feedback from CIE: