

Assessment Report –BIOLOGY 2011-2012

Rosemont College --Undergraduate

I. General information:

Date of Report: May 11, 2012
Semesters or Academic Years Covered: 2010-2011
Division: Natural Science and Education
Department: Biology
Chair or Person Preparing the Report: Aikaterini Skokotas

II. Departmental Profile:

Number of Majors: 38
Number of Faculty: 2 *full time*
1 *part time*

Courses Offered in the Assessment Period:

BIO-0102 Life Science I and Laboratory, BIO-0103 Life Science II and Lab, BIO-0200 Microbiology and Laboratory, BIO-0220 Genetics and Laboratory, BIO-0400 Molecular Genetics, BIO-0245 Vertebrate Anatomy and Physiology I, BIO-0250 Vertebrate Anatomy and Physiology II, BIO-0235 Nutrition, BIO-0335 Immunology, BIO-0450 Introductory Research, BIO-0460 Biology Internship, BIO-0421 Senior Seminar and BIO-0130 Science Issues Lecture, BIO-0131 Science Issues Laboratory

III. Assessment results

A. Learning Outcomes for Majors

This year we collected data dealing with Goal I, Objective 1 (demonstrate knowledge in different fields of biology), Goal II, Objective 1 (analyze and interpret results and produce lab reports using scientific format) and Goal III, Objective 1 (demonstrate effective oral communication skills in the field of biology). Please refer to plan for details.

B. Assessment of Majors

Goal I: Objective 1 (Demonstrate knowledge in different fields of biology)

Our 10 graduates achieved a raw score average of 143 +/-11 falling within the range of the national mean score of 153.2 +/- 13.4. Also, 50.0% (5 out of 10) of the students' scores fall within or above the range of the national mean thereby satisfying the requirement of the outcome.

The ETS test is further divided into 4 subgroups.

- In subgroup 1 (Cell biology), students scored on average score of 48 +/- 10 falling within the national average score of 53 +/- 13.2. 80% (8 out of 10) of the students' scores fall within or above the range of the national mean thereby satisfying the requirement of the outcome.
- In subgroup 2 (Molecular Biology/Genetics) students scored on average score of 44 +/- 10 falling within the national average score of 53 +/- 12.9. 80.0% (8 out of 10) of the students' scores fall within or above the range of the national mean thereby satisfying the requirement of the outcome.
- In subgroup 3 (Organismal Biology), students scored on average score of 46 +/- 11 falling within the national average score of 53.5 +/- 13.8. 70% (7 out of 10) of the students' scores fall within or above the range of the national mean. Four students scored just below the national mean.
- In subgroup 4 (Population Biology /Ecology/Evolution) students scored on average score of 40.2 +/- 12 falling within the national average score of 52.6 +/- 13.5. 50.0 % (5 out of 10) of the students' scores fall within or above the range of the national mean.

Goal II: Objective 1 (to analyze and interpret results and produce lab reports using scientific format)

Students are introduced to scientific writing in BIO-0200 Genetics. Students are expected to become more proficient in scientific writing in the 400 level course BIO-0400 Molecular Genetics. Their first lab report in BIO-0220 was used as a baseline to compare their scores to their final lab report in BIO-0400. The average score for their first lab report in BIO-0200 was 81.9 whereas the score for their final lab report in BIO-0400 was 88.4. The students on average improve by 6.5 points.

Goal III: Objective 1 (demonstrate effective oral communication skills in the field of biology).

Oral presentations were assessed in the following courses: BIO-150 Life Science I, BIO-0220 Genetics, and BIO-0421 Senior Seminar. An oral presentation rubric was used to assess the following areas of the presentation: organization, presentation skills, visual aids, handling of questions after presentation and length of presentation. Each of these areas is scored as follows: excellent (4), good (3), adequate (2) and inadequate (1) and a total score was calculated.

- In BIO-0150 Life Science I, 100% (16 out of 16) of students scored 3 or better, and 0% scored below 3.
- In BIO-0200 Microbiology, 100% (12 out of 12) of students scored 3 or better, and 0% scored below 3.
- In BIO-0220 Genetics, 100% (10 out of 10) of students scored 3 or better, and 0% scored below 3.
- In BIO-0421 Senior Seminar, 100% (10 out of 10) of students scored 3 or better, and 0% scored below 3.

On average, 100% of students scored 3 or better.

C. Changes Based on Assessment

According to the raw ETS scores, our students performed well and their scores fell within or above the national mean. The Subgroup ETS scores also fell within the range of the national mean.

D. Recommendations for Improving the Assessment Process

None are being recommended at this time.