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| **ROSEMONT COLLEGE**  Yearly Discipline Assessment Report (Fall 2022-Spring 2023)    **Discipline:** Biology  **Discipline Coordinator:**  Name: Aikaterini Skokotas Phone: 2371 Email: askokotas@rosemont.edu  **Date Submitted:** 6/2/2023 | | | |
| **Mission Statement 2016**: *Rosemont College is a community of lifelong learners dedicated to academic excellence and fostering joy in the pursuit of knowledge. Rosemont College seeks to develop in all members of the community open and critical minds, the ability to make reasoned moral decisions, and a sense of responsibility to serve others in our global society.*  *Rooted in Catholicism, Rosemont welcomes all faiths and is guided by the principles of Cornelia Connelly and the Society of the holy Child Jesus to meet the needs of the time. Rosemont College values: Trust in and reverence for the dignity of each person; Diversity with a commitment to building an international community; Persistence and courage in promoting justice with compassion; Care for the Earth as our common home.*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  **PART A:**  INSTRUCTIONS**:** Save this form as a Word file. Please fill in the fields below; they will expand as you type. You may separate out majors and non-majors in your descriptions of outcomes. Then fill in Part B. Return to the Director of Strategic Planning and Assessment by June 1. | | | |
| **Discipline Goals** | **Courses taught during year assessing goal** | **Brief description of outcomes (both among majors and non-majors in the classes)** | **Planned Improvements Based on Assessment (List here; elaborate in Part B below)** |
| **Goal I: Demonstrate knowledge in different fields of biology** | BIO-0115 Science for Life, BIO-0150 General Biology I and BIO-0151 Lab, BIO-0155 General Biology II and BIO-0156 Lab, BIO-0220 Genetics and BIO-0222 Lab, BIO-0240 Evolution, BIO-0245 Anatomy and Physiology I and BIO-0247 Lab, BIO-0250 Anatomy and Physiology II and BIO-0251 Lab, BIO-0421 Senior Seminar, and BIO-0460 Internship | The ETS Major Field Test in Biology was used to collect data on the biology majors regarding students’ knowledge in different fields of biology. In fall 2022, 3 students completed the exam and achieved an average score of 145, falling within the range of the national mean score of 152 +/- 13.1. 67% (2 out of 3) of students scored within the range, thereby satisfying the requirement of the outcome (50%).  • In subgroup 1 (Cell biology), the students' average score of 45.3 fell within the national mean score of 51.6 +/- 13.5. 67% (2 out of 3) of students scored within the range, thereby satisfying the requirement of the outcome (50%).  • In subgroup 2 (Molecular Biology/Genetics) the students' average score of 47.3 fell within the national mean score of 52.7 +/- 13.7. 100% (3 out of 3) of students scored within the range, thereby satisfying the requirement of the outcome (50%).  • In subgroup 3 (Organismal Biology), the students' average score of 47.7 fell within the national mean score of 51.4 +/- 13.2. 67% (2 out of 3) of students scored within the range, thereby satisfying the requirement of the outcome (50%).  • In subgroup 4 (Population Biology /Ecology/Evolution) the students' average score of 43.7 fell within the national mean score of 51.2 +/- 13.2. 67% (2 out of 3) of students scored within the range, thereby satisfying the requirement of the outcome (50%). | The average overall scores and sub-scores on the ETS Major Field Test fell within the range of the national mean. One of the three students did not score within the range however this still satisfied our outcome that requires 50% of the students to achieve these scores. No recommendations are suggested at this time. |
| **Goal II: analyze and interpret results and produce lab reports using scientific format** | BIO-0222 Genetics Laboratory | Students are introduced to scientific writing in BIO-0222 Genetics Lab. Students are expected to become more proficient in scientific writing. Students wrote two formal lab reports in BIO-0222 (fall 2022). The average score on the first lab report was 74.2 whereas the average score on the second lab report was 82.1. | No recommendations are suggested at this time. |
| **Goal III: Demonstrate effective oral communication skills in the field of biology** | BIO-0150 General Biology I, BIO-0220 Genetics, and BIO-0421 Senior Seminar | Oral presentations were assessed in the following courses: BIO-150 General Biology I, BIO-0220 Genetics, and BIO-0421 Senior Seminar. An oral presentation rubric was used to assess the following areas of the presentation: organization, content, presentation skills, visual aids, handling of questions after presentation and length of presentation. Each of these areas is scored as follows: exemplary (4), proficient (3), performing (2) and emerging (1) with the highest score being 24.  • In BIO-150 General Biology I (Fall 2022), 100% (6 out of 6) of students were exemplary scoring in the range of 19-24 points pts.  • In BIO-0220 Genetics (Fall 2022), 89% (8 out of 9) of students were exemplary scoring in the range of 19-24 points pts; 11% (1 out of 9) was proficient scoring in the range of 13-18 pts.  • In BIO-0421 Senior Seminar (Fall 2022), 100% (2 out of 2) of students were exemplary scoring in the range of 19-24 points pts. | On average, 100% of students scored proficient or better, so no recommendations are suggested. |
| **Goal IV: Demonstrate the ability to problem solve** | BIO-0115 Science for Life (Online) and BIO-0421 Senior Seminar. | We assessed the problem solving ability of students taking biology courses in our department. BIO-0115 is a Gen Ed course taken by non-majors. BIO-0421 is taken by biology majors. The problem solving rubric was used to assess the following areas: define the problem, identify strategies, generate solutions and evaluate outcomes. Each of these areas is scored as follows: exemplary (4), proficient (3), performing (2) and emerging (1) with the highest score being 16.  • Students in the BIO-0115 course (Fall 2022) learned the General Education criteria at the level of exemplary. The average score and standard deviation on the Problem Solving Rubric was 15.2+/-0.7, 16 being the highest. One hundred percent of the class (16 out of 16 students) scored in the 13-16 range (exemplary). The data suggests that the students have a good understanding of the concepts behind experimental design and were able to generate solutions to a scientific problem.  • In BIO-0421 Senior Seminar (Fall 2022), 100% (3 out of 3) were exemplary. The average score and standard deviation on the Problem Solving Rubric was 14.3 +/-1, 16 being the highest. | No changes are recommended. |

**Part B: (Please use the space available to elaborate)**

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List planned improvements here Status of planned improvement Resulting changes to student learning?

List previous plans here Status of planned improvement Observed changes in student learning?

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