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| **ROSEMONT COLLEGE**Yearly Discipline Assessment Report **Discipline:** Chemistry**Discipline Coordinator:**Name: Xiuni Wu Phone: ext2373 Email: xiuni.wu@rosemont.edu **Date Submitted:**   |
| **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 30th.  |
| **Student Learning Objectives/Outcomes** | **Courses taught during year assessing the objective/outcome** | **Results of Assessment (include majors and non-majors in the classes)** | **Planned Improvements Based on Assessment (List here; elaborate in Part B below)** |
| #1: Each student will demonstrate the ability to function as a working chemist and engage in scientific problem solving based on a comprehensive understanding of fundamental chemical concepts.  | CHE0445 Senior Seminar | CHE0445 was offered as an independent study. The assessment will take place when the student takes the comprehensive exam during the school year of 2023-2024, as the student still has to take one more major course.  |  |
| #2: Practice and apply learned theoretical principles in the laboratory and scientific writing. | CHE0231 Organic Chemistry I LaboratoryCHE0236 Organic Chemistry II Laboratory | CHE0231 introduces scientific writing and basic equipment and techniques. CHE0236 covers standard organic chemistry techniques and emphasizes scientific writing. 100% of students have achieved highly proficient ratings on the rubric. | The intrinsic problem in a laboratory course such as organic chemistry is that due to unpredictable circumstances, in some cases achieving synthesis of a desired product is beyond the control of either the students or the instructor and may not be achieved. The instructor plans to expand the number of alternative experiments so that the major chemistry principles may be conveyed to the students in uninterrupted fashion.Increase instrumental parameter in the lab, so students will learn more about instrumental techniques to solve chemistry problems. |
| #3: Demonstrate effective oral communication skills in the field of chemistry and biochemistry. | CHE0445 Senior Seminar | CHE0445 was offered as an independent study. An oral presentation rubric was used to assess the following areas: organization, content, visuals, presentation skills and handling of questions. The student scored 3 or better in all five categories. | Remind students the timeline of presentation preparation: from topic to outline to the final presentation product. Encourage students to make a list of potential questions as they prepare for their presentations. |

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

List planned improvements here Timeline for planned improvement Reasons for change and desired results?

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| The intrinsic problem in a laboratory course such as organic chemistry is that due to unpredictable circumstances, in some cases achieving synthesis of a desired product is beyond the control of either the students or the instructor and may not be achieved. The instructor plans to expand the number of alternative experiments so that the major chemistry principles may be conveyed to the students in uninterrupted fashion.Increase instrumental parameter in the lab, so students will learn more about instrumental techniques to solve chemistry problems. | The instructor will expand the number of alternative experiments before the start of the semester.The instructor will include organic chemistry labs that use instrumentation for analysis. | Certain organic synthesis experiments were not successful due to unpredictable circumstances.Students can learn more about how to use instrumental techniques to solve chemistry problems. |

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

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| For CHE445 Senior Seminar, we will help students establish review plan for all four subjects (organic, inorganic, physical and analytical) in the beginning of this class.Introduce standardized test to other chemistry classes specifically Organic Chemistry and Inorganic chemistry.Increase the instrumental parameter in all chemistry lab courses. Incorporate peer-reviewed scientific articles into the presentations so students can go in-depth in the content. As part of the assignments for CHE250, students will attend local seminars given by chemistry faculty. | The plan will be implemented when students are to take the comprehensive exam.A new adjunct was hired for this school year and will incorporate these planned improvements during 2023-2024.CHE0250 was not offered this year.  |  |