Degree: MS in Chemistry 2023-2024 Assessment ~~Plan~~Report		
	Student Learning Outcome #1	Graduate Chemistry students will demonstrate competency in oral communication skills.
PLAN	**Assessment Method(s)**	The oral presentation skills of chemistry graduate students will be assessed during a presentation of their research project/final class/capstone and assessed by a review committee. The assessment rubric was developed by the chemistry faculty members. This was chosen because these are skills in which our graduate students must exhibit competency as working chemists. An indirect assessment will also be performed as a survey after the completion of the research project/final class/capstone.
	Proficiency	Students will score an average of 3.0/4.0 on the rubric.
DO	**Benchmark**	80% of students will score an average of 3.4/4.0 on the rubric
	Results of Assessment	75% of the students scored an average of 3.4/4.0 on the rubric.
STUDY	**Analysis of Results**	The oral presentation skills of chemistry graduate students were assessed during a presentation of their research project/final class/capstone and assessed by a review committee. We plan to increase the benchmark expectations in the next year, as the number of students assessed was limited. According to this year's results from the rubric, delivery was the weakest component. We will mainly focus on improving delivery next year.

		The survey results after completing their research project/final class/capstone indicated that the students themselves feel ready to give an oral presentation.
ACT	**Improvement Plan for 2024-2025**	Since the weakest component was delivery, we plan to offer more opportunities for students to practice giving oral presentations as course or research project assignments.

Degree: MS in Chemistry 2023-2024 Assessment ~~Plan~~Report		
	Student Learning Outcome #2	Graduate Chemistry students will demonstrate expertise in standard scientific writing and the use of English in preparing reports.
PLAN	**Assessment Method(s)**	Graduate Chemistry students scientific writing skills will be assessed by a review committee as part of a research or scientific communication course. The written material will be evaluated using a rubric developed by the chemistry faculty members. This was chosen because these are skills in which our graduate students must exhibit competency as working chemists. An indirect assessment will also be performed as a survey after the completion of the research project/final class/capstone.
	Proficiency	Students will score an average of 2.5/4.0 on the rubric.
DO	**Benchmark**	80% of students will score an average of 3.3/4.0 on the rubric.
	Results of Assessment	20% of students scored an average of 3.3/4.0 on the rubric. The average score was 3.1/4.0, which is above our proficiency expectations
STUDY	**Analysis of Results**	Graduate Chemistry students scientific writing skills were assessed by a review committee as part of a research or scientific communication course. The assignments to evaluate writing skills were more focused on biochemistry topics this year. The survey results after completing their research project/final class/capstone indicated that the students themselves feel confident to write reports of any kind.

ACT	**Improvement Plan for 2024-2025**	The action plan is to have two tracks of topics to be covered, one with more focus on chemistry and the other one on biochemistry, to offer students more opportunities to write on topics more related to their expected field of interests We anticipate that this will impact the average score and the percentage of students who score 3.3/4.0 and above will increase. According to this year's results from the rubric, we will mainly focus on improving the quality of information presented during the written assignments.

Degree: MS in Chemistry 2023-2024 Assessment ~~Plan~~Report		
	Student Learning Outcome #3	Graduate Chemistry students will demonstrate the ability to effectively perform chemical research.
PLAN	**Assessment Method(s)**	Chemistry masters students are trained to function as professional chemists. A committee will evaluate the students' research results using a rubric developed by the chemistry faculty members. This was chosen because these are skills in which our graduate students must exhibit competency as working chemists. An indirect assessment will also be performed as a survey after the completion of the research project/final class/capstone.
	Proficiency	Students will score an average of 3.0/4.0 on the rubric.
DO	**Benchmark**	80% of students will score an average of 3.4/4.0 on the rubric.
	Results of Assessment	80% of students scored an average of 3.4/4.0 on the rubric. Average score was 3.6/4.0.
STUDY	**Analysis of Results**	A committee evaluated the students' research results using a rubric developed by the chemistry faculty members. Committee were external and internal qualified chemists. The survey results after completing their research project/final class/capstone indicated that the students themselves feel confident to develop a methodology and analyze data to perform chemical research.

ACT	**Improvement Plan for 2024-2025**	We plan to increase the benchmark expectations in the next year, as only a limited number of students were surveyed. According to this year's results from the rubric the quality of data analysis was the weakest component. We will therefore mainly focus on improving the quality of data analysis next year. Students will focus on performing more hands-on experiments, they will aim to gain experience on analyzing the data.

	Degree: 2023-2024 Assessment ~~Plan~~Report	
	Student Learning Outcome #4	Graduate Chemistry Students will demonstrate competency in presenting data using graphics
PLAN	**Assessment Method(s)**	The data presentation skills of chemistry graduate students using graphics will be assessed during a presentation of their research project/final class/capstone and assessed by a review committee. The assessment rubric was developed by the chemistry faculty members. This was chosen because these are skills in which our graduate students must exhibit competency as working chemists. An indirect assessment will also be performed as a survey after the completion of the research project/final class/capstone.
	Proficiency	Students will score an average of 3.0/4.0 on the rubric.
DO	**Benchmark**	80% of students will score an average of 3.4/4.0 on the rubric
	Results of Assessment	75% of students scored an average of 3.4/4.0 on the rubric.
STUDY	**Analysis of Results**	The data presentation skills of chemistry graduate students were assessed during a presentation of their research project/final class/capstone and assessed by a review committee. The results of the assessment was slightly below expectations probably because the number of students assessed was limited. According to this year's results from the rubric, delivery was the weakest component. We will mainly focus on improving delivery next year.

		The survey results after completing their research project/final class/capstone indicated that the students themselves feel ready to present their data.
ACT	**Improvement Plan for 2024-2025**	Since the weakest component was delivery, we plan to give more data centered oral practices. We plan to offer more opportunities for students to practice giving oral presentations as course or research project assignments.

Degree: 2023-2024 Assessment ~~Plan~~Report		
	Student Learning Outcome #5	Graduate Chemistry students will demonstrate competency in using literature search tools.
PLAN	**Assessment Method(s)**	Graduate Chemistry students' literature searching skills using search tools will be assessed by a review committee as part of a research or scientific communication course. The skills will be evaluated using the assignments in the course. This was chosen because these are skills in which our graduate students must exhibit competency as working chemists. An indirect assessment will also be performed as a survey after the completion of the research project/final class/capstone.
	Proficiency	Students will score an average of 3.0/4.0 on the rubric.
DO	**Benchmark**	80% of students will score an average of 3.4/4.0 on the rubric.
	Results of Assessment	100% of students reached the benchmark with an average of 3.7/4.0 on the rubric.
STUDY	**Analysis of Results**	Graduate Chemistry students' literature searching skills using search tools were assessed by a review committee as part of a research or scientific communication course. The skills were evaluated using the assignments in the course. The survey results after completing their research project/final class/capstone indicated that the students themselves feel confident to use the literature search tools. We plan to increase the benchmark expectation next year.

ACT	**Improvement Plan for 2024-2025**	To improve the plan is to give more assignments in literature search so the students could gain more experience using the search tools.

Degree: 2023-2024 Assessment ~~Plan~~Report		
	Student Learning Outcome #6	Graduate Chemistry students will demonstrate the ability to develop methodology to effectively perform chemical research.
PLAN	**Assessment Method(s)**	Chemistry masters students are trained to function as professional chemists. A committee will evaluate the developed methodology using a rubric developed by the chemistry faculty members. This was chosen because these are skills in which our graduate students must exhibit competency as working chemists. An indirect assessment will also be performed as a survey after the completion of the research project/final class/capstone.
	Proficiency	Students will score an average of 3.0/4.0 on the rubric.
DO	**Benchmark**	80% of students will score an average of 3.4/4.0 on the rubric.
	Results of Assessment	80% of students scored an average of 3.4/4.0 on the rubric. Average score was 3.6/4.0.
STUDY	**Analysis of Results**	A committee evaluated the students' research results using a rubric developed by the chemistry faculty members. Committee were external and internal qualified chemists. The survey results after completing their research project/final class/capstone indicated that the students themselves feel confident to develop a methodology to perform chemical research.

ACT	**Improvement Plan for 2024-2025**	We plan to increase the benchmark expectations in the next year, as only a limited number of students were surveyed. According to this year's results from the rubric the method development was the weakest component. We will therefore mainly focus on improving the methodology development, statement of hypothesis and quality of data collected next year. Students will focus on performing more hands-on experiments, where they will aim to gain experience on developing methodology.