NDFS MS/PhD Program Annual Report

Fall 2023 to Summer 2022

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Program Year in Review

Enrollment Fall 20)22-Summer 2023		
MS	PhD48	PhD70	Total
21	5	5	31

Graduation Fall 2022-	Summer 2023		
MS	PhD48	PhD70	Total
6	1		7

Last year, the graduate faculty met 1 time. During this meeting, the faculty discussed the MS/PhD graduate curriculum. The primary outcome was to decide that a subcommittee will be formed to review the graduate curriculum. Work has continued on improving communication to graduate students and faculty about requirements, expectations, and responsibilities. This has included revising the website, starting to build a canvas course, and continuing to hold the graduate student orientation in the fall.

Program Assessment Activity and Data

Exit Survey

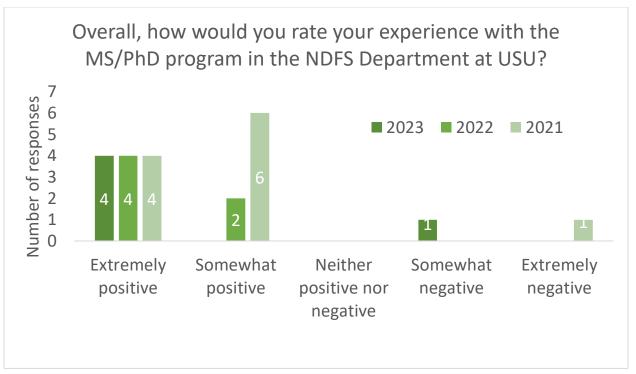
We have continued our practice of surveying graduating students. This feedback is essential to enhance our programs and provides an indirect measure of student achievement of program learning outcomes. We used the same 10 questions as previous years, on program satisfaction, perception of career preparation, and student self-evaluation of their achievement of the learning objectives. The anonymous survey was distributed via email to all MS and PhD graduates from Fall 2021- Summer 2022, and students who completed it received an aggie ice-cream voucher.

Response Rate

From Fall 2022 to Summer 2023, 5 out of 7 graduates completed the exit survey, for a 71% response rate.

Quantitative Results

Out of the 5 students who responded to the exit survey, 4 students rated their experience with our program as extremely positive (80%). All 5 students felt that the degree program prepared them well for their future career. Over the three years that we've been conducting this survey, 91% (20/22) of respondents have rated their experience as somewhat or extremely positive.



n=22 over 3 years

One student, unfortunately, rated their experience as somewhat negative. In response to the question asking them to elaborate on why they didn't feel their experience was positive, they cited a lack of communication from their advisor and the fact that their advisor took a very long time to provide feedback on their work. The faculty discussed this response at a meeting and identified potential methods we could use as a faculty to avoid this type of experience in the future. These included setting clear expectations about communication and expectations from day one, possibly by using a mentorship agreement.

Students were also asked to self-evaluate their progress on program learning outcomes. Students rated their mastery of subject material as comparable to peers from other institutions (n=2) or somewhat (n=1) or far above the average (n=2). All the students strongly agreed that after completing our program they are prepared to conduct scholarly activities in an ethical manner. Finally, 100% of the students agreed that they had conducted, presented, and defended a body of knowledge (for MS) or significant contribution to knowledge (PhD) during their program.

For the full results of the exit survey, please see the appendix.

Qualitative Results

Students provided written responses to two open ended questions, one about things that had a positive impact on their experience at USU and one that asked about things that could be improved. Results were similar to previous years, with students highlighting faculty and staff, opportunities, their peers, and coursework as positives.

Similar to previous years, students requested more course options and improved communication about forms, requirements, and deadlines. In addition, there were comments from one student this year about the need for improved faculty responsiveness and accountability.

Annual review meeting

For the past 6 years, the program has required an annual meeting of each MS/PhD students' graduate committee to evaluate student progress. The committees are instructed to complete an annual review form to track progress and document the meeting, any areas of concern, and corrective actions prescribed by the committee. Although rate of compliance with this rule has typically been low, we are pleased to report that we saw a large increase in the number of students that submitted a form for this calendar year. This improvement is the result of various strategies selected and implemented by the graduate faculty in response to this data including education and re-education of graduate faculty and students about the requirement and purpose of this meeting and form, revising the annual review form, and reminders from the GPC. To further increase response rate, we plan to use an assignment in Canvas in the 2023-2024 year.

Annual Review Form Submission Rates MS/PhD Students		
2017-2018	30%	
2018-2019	23%	
2019-2020	17%	
2020-2021	29%	
2021-2022	25%	
2022-2023	42%	

The annual review form tracks important milestones, research progress, and documents if any corrective action is required. No problems with student progress or achievement of milestones was documented, however there was significant missing data, with 3 out of 13 missing committee evaluation of the student's progress towards program learning objectives. This will be discussed by the faculty in the 2023-2024 year.

Please see the appendix for full annual review form data.

Dissertation rubric forms

Starting in Spring 2021, the NDFS faculty adopted a rubric for PhD dissertation and MS thesis defenses. In Fall 2022-Summer 2023 we had 1 PhD Dissertation defense and 5 MS Thesis defenses. For the vast majority of categories, all students met or exceeded expectations. However, we had one MS student score *does not meet expectations* on "ability to draw reasoned conclusions from a body of knowledge" and another scored *does not meet expectations* on "potential for research dissemination via publication or presentation." The faculty will discuss this data in the 2023-2024 year.

See appendix for full rubric data.

Program Assessment Data Summary Fall 2022-Summer 2023

PhD Program Assessment Summary Fall 2022-Summer 2023

Learning Objective: 1. Demonstrate mastery of subject material in their field of study, broadly defined.		
Direct Evidence	Indirect Evidence	
Annual Review Form <i>Progress on Program</i> Learning Objectives: • 100% met or exceeded expectations on "Demonstrate mastery of subject material " (n=4, exceeds=1, meets=2, missing=1)	Spring 2023 Exit survey: 100% of students rated their mastery of subject material as comparable to or above average as compared to peers from other institutions (n=1, somewhat above average=1)	
 Defense rubrics Quality of Scholarly Work section: 100% met expectations on "Mastery of fundamental knowledge in the field" (n=1) 100% met expectations on "Ability to access and integrate information" (n=1) 	All students pass comprehensive exam, or complete conditions needed for pass	
Defense Rubric Breadth and Depth of Knowledge section: • 100% exceeded expectations on "Defends, clarifies, and expands upon written dissertation with further evidence and argument" (n=1) • 100% exceeded expectations on "Demonstrates knowledge of dissertation subject, primary sources, and background scholarship" (n=1)	All students design and complete their plan of study, approved by their committee, earning grades of C or better	

Learning Objective: 2. Produce an original body of research conducted during their program.		
Direct Evidence	Indirect Evidence	
Annual Review Form <i>Progress on Program Learning Objectives</i> : • 100% met or exceeded expectations on "Produce an original body of research" (n=4, exceeds=1, meets=2, missing=1)	Exit survey: 100% of students agreed that they have done this as part of their degree program. (n=1, somewhat agree=1)	

Defense rubric Contribution to Discipline:

- 100% exceeded expectations on "Impact of research on the field" (n=1)
- 100% exceeded expectations on "Publication potential" (n=1)

Learning Objective: 3. Write in a clear, convincing, and organized manner.		
Direct Evidence	Indirect Evidence	
Annual Review Form <i>Progress on Program Learning Objectives</i> : • 100% met or exceeded expectations on "Write in a clear" (n=4, exceeds=1, meets=2,	All students write a research proposal, evaluated by committee without a rubric. All students complete a written portion of the	
missing=1)	comprehensive exam, evaluated by the committee without a rubric.	
Defense Rubric Quality of Writing:		
 100% met expectations on "Skilled at scientific/technical writing" (n=1) 100% met expectations on "Organization, 		
sentence structure, grammar, mechanics, and spelling." (n=1)		

Direct Evidence	Indirect Evidence
Annual Review Form <i>Progress on Program Learning Objectives</i> : • 100% met or exceeded expectations on	All students present a research proposal, evaluated by committee without a rubric.
"Present in a confident" (n=4, exceeds=1, meets=2, missing=1)	All students complete an oral portion of the comprehensive exam, evaluated by the committee without a rubric.
Defense rubric <i>Quality of Presentation</i> section:	
 100% met expectations on "Presentation design" (n=1) 	
 100% met expectations on "Content and organization" (n=1) 	
 100% exceeded expectations on "Presenter skills" (n=1) 	

Learning Objective: 5. Defend decisions and conclusions by providing accurate, clear, and insightful evidence and answers to questions.

Direct Evidence	Indirect Evidence
Annual Review Form <i>Progress on Program Learning Objectives</i> : • 100% met or exceeded expectations on "Defend decisions" (n=4, exceeds=1, meets=2, missing=1)	All students defend a research proposal, evaluated by committee without a rubric.
 Defense rubric Response to Questions section: 100% exceeded expectations on "Directly and correctly answers the examiner's questions" (n=1) 100%] exceeded expectations on "Shows evidence of critical thinking and an awareness of the limits of his or her knowledge" (n=1) 	All students defend their work on the comprehensive exam, evaluated by the committee without a rubric.
Defense Rubric Breadth and Depth of Knowledge section: • 100% exceeded expectations on "Defends written dissertation with further evidence and argument" (n=1)	

Direct Evidence	Indirect Evidence
 Annual Review Forms Ethics Training 75% or 3 out of 4 students have completed an ethics training (CITI or similar) by year 2 	Exit survey: 100% of students agree that they are able to conduct scholarly activities in an ethical manner (n=1, definitely yes=1)
Annual Review Form <i>Progress on Program Learning Objectives</i> : • 100% met or exceeded expectations on "Conduct scholarly activities in an ethical manner." (n=4, exceeds=1, meets=2, missing=1)	

Direct Evidence	Indirect Evidence
 Annual Review Form Progress on Program Learning Objectives: 100% met or exceeded expectations on "Demonstrate mastery of subject material" (n=9, exceeds=2, meets=5, missing=2) 	Exit survey: 100% of students rated their mastery of subject material as average or above average as compared to peers from other institutions (n=4, somewhat above average=2, average=2)
 Defense rubrics Quality of Scholarly Work section: 100% met or exceeded expectations on "Mastery of fundamental knowledge in the field" (n=6, 1=exceeds 5=meets) 100% met or exceeded expectations on "Ability to access and integrate information" (n=6, 1=exceeds 5=meets) 	All students design and complete their plan of study, approved by their committee, earning grades of C or better
Defense Rubric Breadth and Depth of Knowledge section:	-
 100% met or exceeded expectations on "Defends, clarifies, and expands upon written thesis with further evidence and argument" (n=6, 2=exceeds 4=meets) 	

Direct Evidence	Indirect Evidence
Annual Review Form <i>Progress on Program Learning</i> Objectives: • 100% met or exceeded expectations on "Produce an original significant contribution" (n=9, exceeds=1, meets=6, missing=2)	Exit survey: 100% of students agreed that they have done this as part of their degree program. (n=4, strongly agree=4)
 Defense Rubric Contribution to Discipline: 100% met or exceeded expectations on "Impact of research on the field" (n=6, 1=exceeds 5=meets) 83% met or exceeded expectations on "Potential for research dissemination via publication or presentation." (n=6, 3=exceeds 2=meets) 	All students design their research proposal evaluated by committee without a rubric

Direct Evidence	Indirect Evidence
 Annual Review Form Progress on Program Learning Objectives: 100% met or exceeded expectations on "Write in a clear" (n=9, exceeds=1, meets=6, missing=2) 	Exit survey: 100% of students agreed that they have done this as part of their degree program. (n=4 strongly agree=4)
 Defense Rubric Quality of Writing: 100% met or exceeded expectations on "Skilled at scientific/technical writing" (n=6, 1=exceeds 5=meets) 100% met or exceeded expectations on "Organization, sentence structure, grammar, mechanics, and spelling." (n=6, 1=exceeds 5=meets) 	All students write their research proposal, evaluated by committee without a rubric

Direct Evidence	Indirect Evidence
Annual Review Form <i>Progress on Program Learning Objectives</i> : • 100% met or exceeded expectations on "Present in a confident" (n=9, exceeds=2, meets=5, missing=2)	All students present their research proposal, evaluated by committee without
 Defense rubric Quality of Presentation section: 100% met or exceeded expectations on "Presentation design" (n=6, 2=exceeds 4=meets) 100% met or exceeded expectations on "Content and organization" (n=6, 3=exceeds 3=meets) 100% met or exceeded expectations on "Presenter skills" (n=6, 4=exceeds 2=meets) 	a rubric

MS Learning Objective: 5. Defend decisions and conclusions by providing accurate, clear, and insightful evidence and answers to questions.

Direct Evidence	Indirect Evidence
Annual Review Form <i>Progress on Program Learning Objectives</i> : • 100% met or exceeded expectations on "Defend decisions" (n=9, exceeds=1, meets=6, missing=2)	All students defend their research proposal, evaluated by committee without a
 Defense rubric Response to Questions section: 100% met or exceeded expectations on "Directly and correctly answers the examiner's questions" (n=6, 1=exceeds 5=meets) 100% met or exceeded expectations on "Shows evidence of critical thinking and an awareness of the limits of his or her knowledge" (n=6, 3=exceeds 3=meets) 	rubric
Defense Rubric Breadth and Depth of Knowledge section: • 100% met or exceeded expectations on "Defends written thesis with further evidence and argument" (n=6, 2=exceeds 4=meets)	

Direct Evidence	Indirect Evidence
 Annual Review Forms Ethics Training 67% or 4 out of 6 students have completed an ethics training (CITI or similar) by year 2 	Exit survey: 100% of students ago that they are able to conduct scholarly activities in an ethical manner (n=4, definitely yes=4)
Annual Review Form <i>Progress on Program Learning Objectives</i> : • 100% met or exceeded expectations on "Conduct scholarly activities" (n=9, exceeds=2, meets=5, missing=2)	- mainer (n-4, definitely yes-4)

Faculty Response to Assessment Data

In the year of Fall 2022-Summer 2023 our main program goal was to continue our efforts to improve our program in response to assessment data. We continued work to improve the communication of program and university requirements and student and advisor expectations.

Communication of Resources and Requirements

Similar to last year, one of our main findings from the exit survey, was a need for better communication of program and university resources and requirements to graduate students and faculty members. (This was also noted in the R411 review in 2021.) To continue to address this need we developed our canvas page, updated the program handbook, maintained the changes to fall orientation, and updated the program website.

Canvas Page

In response to observations that students often miss important announcements sent through email, we have decided to create a program Canvas page. This page will be a depository for resources such as the program handbook, required forms, and others as identified. The GPC and GPD will use the features of canvas to communicate with the graduate students including posting announcements, sending canvas email, and the use of ungraded "assignments" for required departmental forms.

Handbook

The handbook was updated for the current year by the GPC and distributed at orientation, emailed to all students and graduate faculty, <u>posted on our website</u>, and on our new canvas page. The handbook contains details of program requirements, USU policies, academic and professional resources, a list of who to go to for answers about different issues, a list of potential courses for plan of studies, required forms, and optional forms.

Orientation

This year we require all newly enrolled graduate students to attend and also invited previously enrolled students as well as graduate faculty to make sure everyone clearly understood program requirements and resources available. Orientation included introductions, didactic material, and an interactive quiz to teach program requirements. We provided the handbook prior to orientation for students to review, to allow for most of the time in orientation to be spent on relationship building between students and faculty. Students were required to review the handbook and return a signed form indicating that they had received the handbook, reviewed the contents, and had their questions answered.

Website

The NDFS website has been updated to better communicate resources and requirements for our MS/PhD students. The MS/PhD program website has been updated to include information for new student orientation, important links, departmental forms, degree requirements, teaching, preparing for the defense, research emphasis areas, and wellness resources. https://caas.usu.edu/ndfs/ms-phd-students

Mentor/Mentee Expectations Document

The draft list of Mentor/Mentee Expectations and Responsibilities which was drafted by a sub-set of the graduate faculty was presented to the wider graduate faculty. In addition, a similar document was made available from the Associate Dean for Research and Graduate Studies. In the coming year, we plan to revise the draft based on faculty feedback and potentially incorporating some of the content from the other document. This will then be submitted to the full faculty for vote, and if approved will be included in our graduate handbook, canvas course, and resources page.

Program Assessment

The revised program assessment plan was approved via faculty vote in Fall 2022. This report contains the first data collected using our updated annual review form, designed to evaluate student progress on important milestones and program learning objectives, with built in suggestions for improvement if needed. We have continued to use the PhD Dissertation Defense Rubric and MS Thesis Defense Rubric to gather data on achievement of program learning objectives. Our exit survey has continued to be a source of important qualitative data on program strengths and areas for improvement.

A final piece of work for the coming year is to finalize and adopt the rubric we're developing for our comprehensive exams. This rubric will standardize exam evaluation and collect direct evidence of student learning for program assessment. A first draft of the document was drafted by a sub-committee with representation from both food science (Dr. Taylor Oberg and Dr. Prateek Sharma) and nutrition science (Dr. Carrie Durward and Dr. Heidi Wengreen). Work on this rubric was put on hold due to time constraints. In the coming year the committee plans to present the draft to the faculty, revise as needed, and vote to adopt.

Curriculum

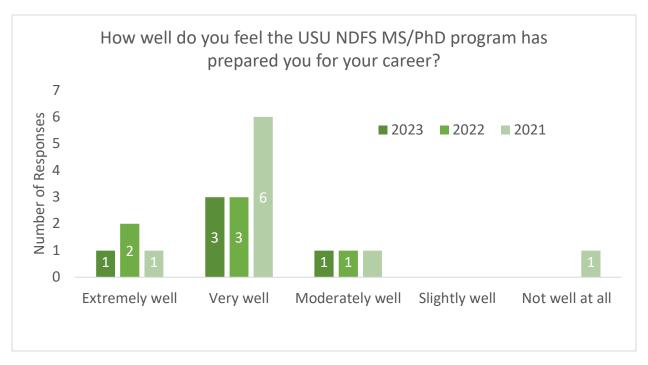
The MS/PhD Graduate faculty met in Feb 2023 to discuss aspects of the curriculum noted by the external reviewers in the R411 report. Specifically, reviewers were concerned about the impact of cross-listing courses at the undergraduate and graduate level and using on-line courses from our professional degree program as electives for our MS/PhD program on graduate learning.

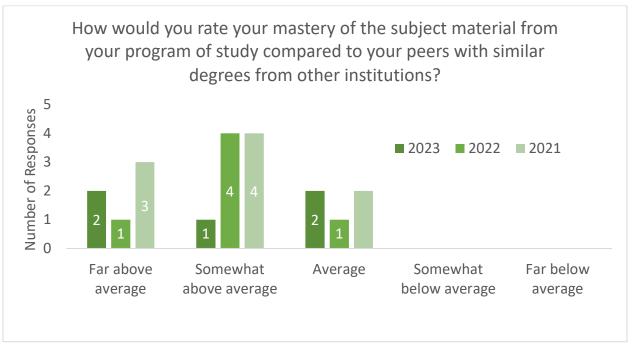
It was noted that these practices allow us to offer courses more consistently as we typically would not have high enough enrolment to offer them in-person or only at the graduate level. Further, the professional degree courses have allowed us to expand the breadth of NDFS courses available to our MS/PhD students. Faculty feel that these courses are a strength of our MS/PhD program, not a concern. The practical experiences and applied perspectives of our professional students enhance the typically theoretical knowledge of our MS/PhD students. Both faculty and MS/PhD students value the opportunity for cross-program interaction and mutual learning.

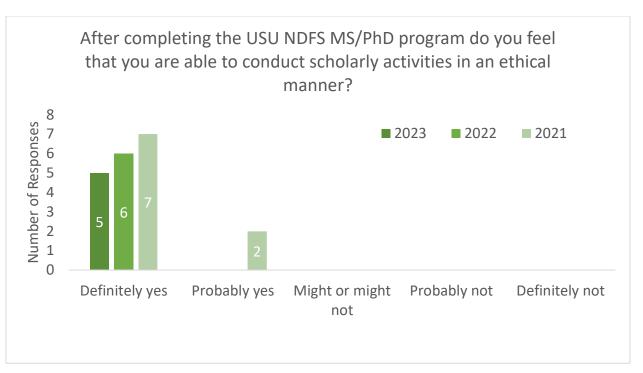
The faculty decided to form a sub-committee to conduct a critical assessment of course offerings, with an initial focus on cross-listed courses. This assessment will evaluate the extra work assigned to graduate students to make sure it is relatively consistent in scope and when/if it might be possible to split the courses into separate graduate and undergraduate sections.

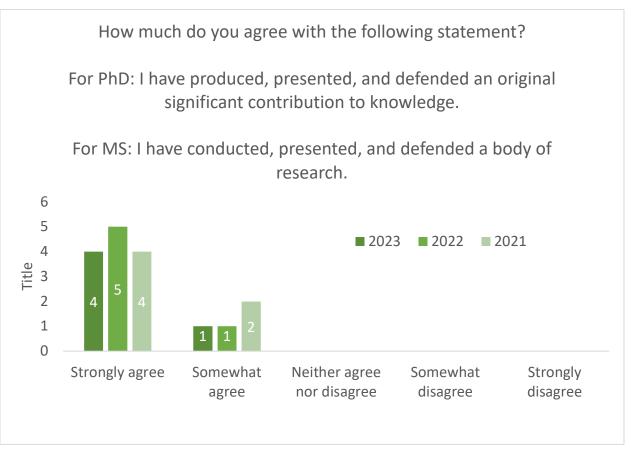
Appendices

Spring 2021-2022 Exit Survey Data









Positives from 2023 Graduate Student Exit Survey (Fall 2022-Summer 2023 Graduates)

Responses to question: Please tell us about 3 things that had a positive impact on your experience in the MS/PhD program at USU.

Themes	Quality of faculty and staff	Major Professor	Graduate coursework	Funding (scholarship, assistantships, travel)	Other Students	Other
es	Dr. Mcmahan, Tara Black, Dr. sharma	My major professor	The classes that I took	Scholarships that I got	Interacting with other students	Being a part of BUILD
t Responses	Dr. Oberg	My major professor	The labs were great.	Funded opportunities to share	My fellow students.	
Student	Committee members	My Mentor Professor		Traveling to Conferences		
Š	The workers in the			research and		
	creamery specifically Dan			graduate assistantships		

Areas for Improvement from 2023 Graduate Student Exit Survey (Fall 2022-Summer 2023 Graduates) Responses to question: Please tell us about 3 things that you think we should try to improve for future students.

	Program Content	Communication/awareness	Faculty/Student Expectations	Other
	Class options	To give in coming students a list of things needed to be done to graduate and deadline that need to be meet	Get professors to have realistic and reasonable turn around times.	Preparing for opportunities post-graduation
Student Responses	I think for students who don't have a food science background there are a few good upper level classes. However, for students who have a bachelors in Food science a lot of the classes offered I had already taken. For this reason I spent a few of my credits as a TA for classes. I thought that was enjoyable but I didn't feel my classes had a huge impact on my masters at all.	Talks about how to fill out the required forms and where to find those forms	Have a better system of accountability for the professors.	Outreach More meetings with my committee members

Annual Review Form Data

MS Student Progress On Program Learning Objectives, Fall 2022- Summer 2023 Annual Review Meetings							
MS (n=9)							
Program learning objectives.	Does not meet expectations	Meets expectations	Exceeds expectations	Missing			
Demonstrate mastery of subject material in their field of study, broadly defined		56% (n=5)	22% (n=2)	22% (n=2)			
2. Produce an original significant contribution to knowledge during their program.		67% (n=6)	11% (n=1)	22% (n=2)			
3. Write in a clear, convincing, and organized manner.		67% (n=6)	11% (n=1)	22% (n=2)			
4. Present in a confident, organized, and engaging manner.		56% (n=5)	22% (n=2)	22% (n=2)			
5. Defend decisions and conclusions by providing accurate, clear, and insightful evidence and answers to questions.		67% (n=6)	11% (n=1)	22% (n=2)			
6. Conduct scholarly activities in an ethical manner.		56% (n=5)	22% (n=2)	22% (n=2)			

PhD Student Progress On Program Learning Objectives, Fall 2022- Summer 2023 Annual Review Meetings								
PhD (combined PhD48 and PhD70 n=4)								
Program learning objectives.	Does not meet expectations	Meets expectations	Exceeds expectations	Missing				
1. Demonstrate mastery of subject material in their field of study, broadly defined		50% (n=2)	25% (n=1)	25% (n=1)				
2. Produce an original body of research conducted during their program.		50% (n=2)	25% (n=1)	25% (n=1)				
3. Write in a clear, convincing, and organized manner.		50% (n=2)	25% (n=1)	25% (n=1)				
3. Write in a clear, convincing, and organized manner.		50% (n=2)	25% (n=1)	25% (n=1)				
4. Present in a confident, organized, and engaging manner.		50% (n=2)	25% (n=1)	25% (n=1)				
5. Defend decisions and conclusions by providing accurate, clear, and insightful evidence and answers to questions.		50% (n=2)	25% (n=1)	25% (n=1)				
6. Conduct scholarly activities in an ethical manner.		50% (n=2)	25% (n=1)	25% (n=1)				

<u>Dissertation Rubric Data</u>

Fall 2022-Summer 2023 Dissertation Documents: Percent and (number) of students rated at Exceeded, Met, and Did not meet Expectations*

			Fall 2021-Sumn	ner 2022	
		Does not meet expectations	Meets expectations	Exceeds expectations	Missing
Quality of the Scholarly Work	Mastery of fundamental knowledge in the field		100% (n=1)		
	Ability to access and integrate information into a cohesive overview of current knowledge. Ability to critically evaluate the meaning, value and contribution of published literature in the field.		100% (n=1)		
	Imagination and originality of thought		100% (n=1)		
	Ability to design and implement an appropriate collection and analysis of data.		100% (n=1)		
	Ability to draw reasoned conclusions from a body of knowledge		100% (n=1)		
Contribution	Impact of research on the field			100% (n=1)	
to Discipline	Publication potential			100% (n=1)	
Quality of Writing	Skilled at scientific/technical writing		100% (n=1)		
	Organization, sentence structure, grammar, mechanics and spelling		100% (n=1)		
Overall assessn	nent of Dissertation Document		100% (n=1)		

Fall 2022-Summer 2023 Dissertation Defense Presentations: Number that Exceeded, Met, and Did not meet Expectations*

		Does not meet expectations	Meets expectations	Exceeds expectations	Missing
Quality of	Presentation design		100% (n=1)		
Presentation	Content and organization		100% (n=1)		
	Presenter skills			100% (n=1)	
Breadth and Depth of Knowledge	Defends, clarifies, and expands upon written dissertation with further evidence and argument			100% (n=1)	
J	Demonstrates knowledge of dissertation subject, primary sources, and background scholarship; demonstrates ability to synthesize dissertation topic with broader topics in the discipline			100% (n=1)	
Quality of Responses to	Directly and correctly answers the examiner's questions			100% (n=1)	
Questions	Shows evidence of critical thinking and an awareness of the limits of his or her knowledge			100% (n=1)	
Overall assessm	nent Oral Defense		100% (n=1)		

^{*}This data is from 1 student, the average of 5 rubrics.

Thesis Rubric Data

Fall 2022-Summer 2023 MS Thesis Documents: Percent of students rated at Exceeded, Met, and Did not meet Expectations*

		Does not meet expectations	Meets expectations	Exceeds expectations	Missing
Quality of the Scholarly Work	Mastery of fundamental knowledge in the field		83% (n=5)	17% (n=1)	
	Ability to access and integrate information into a cohesive overview of current knowledge		83% (n=5)	17% (n=1)	
	Ability to articulate clear research problem, objectives and/or hypothesis		83% (n=5)	17% (n=1)	
	Ability to implement an appropriate collection and analysis of data		64% (n=4)	33% (n=2)	
	Ability to draw reasoned conclusions from a body of knowledge	17% (n=1)	64% (n=4)	17% (n=1)	
Contribution to	Impact of research on the field		83% (n=5)	17% (n=1)	
Discipline	Potential for research dissemination via publication or presentation	17% (n=1)	33% (n=2)	50% (n=3)	
Quality of Writing	Skilled at scientific/technical writing		83% (n=5)	17% (n=1)	
	Organization, sentence structure, grammar, mechanics and spelling		83% (n=5)	17% (n=1)	
Overall assessme	ent of Thesis Document		33% (n=2)	33% (n=2)	33% (n=2)

Fall 2022-Summer 2023 MS Thesis Defense Presentations: Number that Exceeded, Met, and Did not meet Expectations*

		Does not meet expectations	Meets expectations	Exceeds expectations	Missing
Quality of	Presentation design		64% (n=4)	33% (n=2)	
Presentation	Content and organization		50% (n=3)	50% (n=3)	
	Presenter skills		33% (n=2)	64% (n=4)	
Breadth and Depth of Knowledge	Defends, clarifies, and expands upon written thesis with further evidence and argument		64% (n=4)	33% (n=2)	
Quality of Responses to	Directly and correctly answers the examiner's questions		83% (n=5)	17% (n=1)	
Questions	Shows evidence of critical thinking and an awareness of the limits of his or her knowledge		50% (n=3)	50% (n=3)	
Overall assessmen	t of Thesis Defense		33% (n=2)	33% (n=2)	17% (n=1)

^{*} This data is average scores from 6 students, 16 rubrics total (3 each for 5 students, 1 for 1 student)