Humboldt.

PERSONNEL DATA SHEET (PDS)

Name:	1
At what rank were you first employed at HSU?	Assistant Professor
Date of initial appointment:	Present rank: <u>Assistant Professor</u>
Effective date of appointment or promotion to p	present rank: <u>08/17/2023</u>
Have you been awarded tenure?	Yes No _X
Terminal degree received?	Yes <u>X</u> No
If No, Expected completic	on date:
<u>OR</u> Date equivalency o	r compensatory strengths approved:

I. EDUCATION AND EMPLOYMENT BACKGROUND

a. Education

Name of Institution/Location	Dates Attended	Major Emphasis	Credits Earned	Degree and Date

b. Employment

Employer (or Organization/Location	Nature of Employment	Nature of Position/Rank Employment	
Cal Poly Humboldt Arcata, California	Teaching, research	Assistant Professor	
	Research	Ph.D. Resident	
-	Research, mentor	Research Mentor for high school students	
	Research	Graduate research fellow	
-	Teaching	Teaching Assistant	
	Teaching	Workshop leader (teaching assistant)	

II. EFFECTIVENESS (Appendix J, Section IX, B.1.)

a. Teaching Effectiveness

1. Teaching History: The table below includes courses taught AY 2023-2024 and Fall 2024-2025.

Term	Course	Title	Format	WTU	Enrollment
Fall 2024	DATA 111	Introduction to Programming and Computational Thinking for Data Science	Lecture	3	24
	Data 111 (Activity)	Introduction to Programming and Computational Thinking for Data Science Activity	Lab	1.3	24
	Math 109	Calculus I	Lecture	4	41
	Assigned	Probationary 11 Faculty W10		3	NA
	Collateral	Reduction		3	NA
	Term Total				14.3
Spring 2024	DATA 271	Data Wrangling and Visualization	Lecture	3	9
	Data 271 (Activity)	Data Wrangling and Visualization Activity	Lab	1.3	9
	Math 109	Calculus I	Lecture	4	46
	Assigned	Probationary TT Faculty WTU		3	NA
	Time	Reduction			
	Collateral Duties			3	NA
	Term Total			14.3	
Fall 2023	DATA 111	Introduction to Programming and Computational Thinking for Data Science	Lecture	3	12
	Data 111 (Activity)	Introduction to Programming and Computational Thinking for Data Science Activity	Lab	1.3	12
	Math 109	Calculus I	Lecture	4	36
	Assigned	Probationary TT Faculty WTU		3	NA
	Time	Reduction			
	Collateral Duties			3	NA
	Term Total			14.3	
TOTAL				42.9	

2. Teaching Philosophy:

During my first year at Cal Poly Humboldt, I taught mathematics and data science courses. Throughout this period, I have received positive teaching evaluations, reflecting my effectiveness as an educator. However, I am committed to continuous improvement and am eager to adapt my methods to better meet individual students'

needs and interests. I regularly try to learn more and implement new techniques in my classroom. Consequently, I have integrated tools and techniques from various pedagogical workshops to enhance my classroom presence.

Although my teaching techniques vary by course and will likely evolve with experience, my overarching teaching philosophy is anchored in three goals. These are: (1) helping students understand concepts deeply and make real-world connections rather than memorize steps, (2) teaching students to and effectively communicate their reasoning and problem-solving techniques, and (3) creating an inclusive learning environment that fosters a sense of belonging and confidence, giving students a more positive impression of mathematics and data science.

Conceptual Understanding and Connection to Real-World Problems: In my teaching, I aim to help students grasp course material on a deeper level through several techniques. Before diving into specific problem-solving examples, I present material in a broad context, allowing us to address potential applications. For instance, in my Math 109 Calculus I course in Spring 2024, I did one activity with my students motivated by a workshop hosted by two professors from Sonoma State University. Before introducing the concept of integration, I showed a video of a vehicle's dashboard, highlighting the speedometer and arrow signals. I asked students to consider the car's journey based on the speedometer information alone. They identified points where the vehicle likely took turns or changed lanes and estimated the distance traveled during the video. This approach motivated the technique of integration, leading to a deeper understanding.

A similar approach was used in my DATA 271 course in Spring 2024 when we began the section on data visualization principles. I showed students various data visualizations from real news articles and research papers, giving them time to reflect on each visualization. They discussed what each visualization showed, its strengths and weaknesses, and uncovered the importance of labeling axes, choosing appropriate plot types, and scaling axes correctly. These discussions highlighted the implications of poor visualization choices and their impact on audience interpretations. Once students had developed an intuition for good visualization practices, we formally covered the principles and components that make an effective data visualization. Overall, this method helps students feel that the lessons are grounded in relatable experiences.

Communication and Reasoning: When teaching complex concepts and problem-solving approaches to students with varying levels of understanding, I like to give students many opportunities to communicate their reasoning. In Math 109, I begin each session with a preliminary example, asking questions that guide students through the thought process rather than focusing solely on the mathematical steps. Students work on the preliminary example in a think-pair-share style before tackling additional, increasingly complex examples. This interactive learning approach serves two purposes: it allows students to discover how well they understand the material by explaining reasoning to peers and it may expose them to different problem-solving strategies.

In DATA 271 and DATA 111 lab sessions, students spend the first 30 to 45 minutes working through written worksheets in groups. They are encouraged students to reason through problems without relying on computers, which might distract or aid them with error messages. This practice helps them think more deeply about their approach. Students practice their communication skills by presenting their solutions at the white board and answering peers' questions.

Creating a Positive and Inclusive Learning Environment: I have found that many students experience anxiety in math classes and often consider themselves "bad at math." To counteract this negative stereotype, I aim to promote a growth mindset and a sense of belonging for all students, especially those who have been historically minoritized. On the first day of class, I work to foster a sense of belonging by sharing information about myself, both academic and personal, and inviting students to get to know each other. I also remind them that encountering challenges and struggles is beneficial for learning, so I set that expectation and remind them that I am always willing to help. In the first week, each student completes an introduction assignment, which I respond to individually, and I encourage them to schedule a one-on-one meeting with me to encourage personal connections. To further create a sense of belonging for all students, I avoid using microaggressions, such as calling lessons "easy" or using male-focused phrases such as "you guys". I also inform students about available resources, such as office hours and on-campus tutorial centers, especially for first-generation or transfer students who may not be familiar with these resources. I reiterate this information throughout the course to ensure all students know that these resources are there to help them succeed.

I encourage a growth mindset by being honest about my own struggles with math. For instance, I share with my Calculus students how I initially struggled with the concept of a limit when I was a student and explain the steps I took to improve my understanding. By sharing my journey, I hope to show students that overcoming confusion is possible and that struggling does not mean they are "bad at math." I frequently encourage students to ask questions and may initiate the process by sharing questions I had when I first learned a concept. To further support a growth mindset, I structure course assignments and evaluations to emphasize learning and improvement. In Math 109, students take weekly quizzes and can correct their mistakes for full credit. In my data science courses, students can schedule a one-on-one meeting with me to explain their corrected homework and earn full credit back.

Description of Courses:

<u>MATH 109</u>: The MATH 109 Calculus I is a GE B4 Mathematical Reasoning course and is required for many STEM majors. I taught the course in Fall 2023 and Spring 2024.

In both semesters, class sessions were 50 minutes long, Monday through Thursday. For each class, I began with announcements, which included reminders on homework due dates, upcoming exams, or any opportunities for extra credit. On most Mondays through Wednesdays, we worked through a set of guided lecture notes for the entire class period. The guided notes included at least one student-led preview example, spaces to fill in detailed definitions and theorems, spaces to fill in step-by-step approaches to problems, and many example problems. I worked through the notes on a document camera, and students followed along with their own versions on tablets or printed versions. On Thursdays, students took weekly review quizzes, which assessed concepts covered earlier that week. I began each Thursday with 20-25 minutes of review (including both conceptual review and practice problems), then students had the final half of class to take the quiz (typically 2-4 problems). At the end of class, they turned in their quiz along with corrections on the previous week's quiz to earn full credit. Graded quizzes were returned to students at the beginning of class on Mondays.

Outside of class, students were given weekly homework assignments online through MyOpenMath (assigned on Monday and due the following Monday before class). When students answered incorrectly more than 3 times on a homework problem, they could request a similar problem and try again with unlimited attempts. Two midterms were given in Week 4 and Week 11 of the semester. After receiving their initial midterm scores, students could schedule a one-on-one meeting with me to explain their corrections and earn partial credit back (25-50% of points missed). A comprehensive final was given during finals week with no correction opportunities.

Throughout the semester, students could earn extra credit by completing algebra and trigonometry review worksheets to boost their foundation. Given that it was widely taken across the university, I tried to make it accessible and engaging with a variety of examples to appeal to a wide variety of STEM majors. As such, some applications in the course were physical (e.g., position, velocity, acceleration) and some were biological (e.g., population growth rates).

All three goals from my teaching philosophy are evident through course evaluations:

Conceptual Understanding and Connection to Real World Problems: In course evaluations, students reported appreciating practical applications. One student stated, "The material I learned was applicable to the real world and could be applied to real world applications. Also I was always engaged because Dr. Johnson had a great enthusiasm for what she was teaching which helped me to want to learn it because she was so passionate about it." Another student mentioned, "Real world applications of the problems also help for the material to stick in my mind because it seems more practical and useful."

Communication and Reasoning: Course evaluations revealed that students enjoyed communicating their reasoning to others. Once student reported that they felt most engaged "When we were working with other students on what we were learning in class." Another student said, "I really appreciated how the instructor gave us time to work on the problems alone, and then together as a class. I feel that this way gave me an opportunity to push myself, while also making sure that I was staying on track."

Positive and Inclusive Learning Environment: Students felt comfortable in the course and generally seemed to

adopt a growth mindset. One student reflected on their appreciation "Being able to turn in tests and not being afraid to make mistakes." Another student mentioned, "the opportunity to correct the quizzes for credit really motivated me to go back and correct my work after receiving a grade on it, which helps me to understand the material better."

While course evaluations are generally positive in my MATH 109 sections, I have encountered several pedagogical challenges. One challenge was during think-pair-share activities. Early in the Fall 2023, I noticed that my students seemed to be hesitant to start communicating to one another during the "pair" session. I got the sense that many of them were nervous to say anything unless they had finished the problem and felt confident in their solution. I addressed this by slightly changing my language when I invited them to pair. Instead of saying "turn to someone next to you and talk about what you tried so far," I said "No matter where you are in this problem, let's all check in with someone next to us and start talking through our approaches. We'll go over the rest as a class in a few minutes". Even though this seemed like a small change in language, I noticed a significant difference in their engagement and confidence. After this change, I would hear an eruption of noise once I invited them to pair, and I never had a significant problem with participation afterward. Another issue was that one or two of my students regularly participated in the "share" sessions and others remained consistently quiet. To address this, I started inviting specific groups to share their results after going around the room during the pair session.

Another challenge was related to attendance. In Fall 2023 and Spring 2024, I taught the 8am section of this course. While attendance started out strong in Fall 2023, numbers slowly dwindled throughout the semester and many students attributed absences to the early class time. However, I noticed a consistent trend that most students did attend on Thursdays (quiz days). In my Spring 2024, I tried to encourage more attendance by only accepting quiz corrections if students had attended all classes that week. Many students seemed to be okay with this policy, however some students expressed the desire for more flexibility in cases of illness (elaborated on later).

In addition to the quiz correction policy, I made improvements in Spring 2024 based on course evaluations from Fall 2023. In both semesters, I also participated in the Mid-semester feedback program to incorporate tools and techniques for each specific class. While many students did not requested changes in the Fall 2023 evaluations, there were several responses containing constructive criticism including

- Do less overview of topics before the quiz and more practice problem in place of that.
- class time could be a bit longer, sometimes it felt a bit rushed having only 50mins class time
- ... If anything needed to be changed it was more time for the class. It would have been nice if instead of the class being 50 minutes only it was an hour and 30 minutes
- ...at times, the instructor writes really quickly so it can be difficult to keep up with the notes while also trying to learn the new information...
- Better office hours, and post lectures

To address these suggestions, before quizzes on Thursdays, instead of doing a written review of concepts from the week, I did a verbal review while briefly flipping through the notes. This allowed more time for students to work on practice problems before the Thursday quizzes. Since I did not have control over the length of class sessions, I tried to amend student concerns in a variety of other ways. I added additional office hours (6 per week in total scattered across mornings and afternoons), I posted the lecture notes in case students did not have time to write everything I wrote during class, and I made an effort to slow down during class. While this resulted in fewer example problems completed during class, I believe it helped certain students keep up with the material.

Implementing those changes appeared to alleviate students' concerns. In Spring 2024 evaluations, many students again did not request changes to the course, however, a couple students suggested changing the homework due dates to Sundays at midnight rather than before class on Mondays to discourage procrastination. One other student mentioned that the notes were fairly long, and another student requested more leniency in regards to make-up quizzes in cases of absences from illness. I will be teaching MATH 109 in Fall 2024. To address the first concern, I will change the homework due date to Sundays at midnight. I do not plan to decrease the length of the notes because students are not required to go through every problem. Problems that we do not get to in class are left as additional examples if students want extra practice. Regarding the last comment, I find that it is

HSU Personnel Data Sheet (PDS)

Revised

logistically difficult to allow make-up quizzes for individuals and I drop the two lowest quiz scores. I plan to ask a colleague for suggestions about how to address this student's concern.

Overall, I have been pleased with the feedback I received in both semesters of teaching MATH 109, but I would like to address one response. In response to the question "Reflecting on your experience in this class, what changes would you recommend to the instructor?" one student reported, "Nothing. Anyone who says she needs to change anything about her teaching is simply angry due to their own academic failure. She is quite literally the HARDEST teacher to fail." While likely intended as positive feedback, this comment made me reflect deeply. My primary goal as an instructor is to alleviate the anxieties students, especially underrepresented ones, may have when taking a math class. Many students fear making mistakes, feel ashamed of wrong answers, and believe they are bad at math if not perfect. This mindset is often ingrained over years, making it challenging to shift their thinking and understand that mistakes are essential for learning. To address this, my grading structure offers many opportunities for corrections on homework, quizzes, and midterms. While this enhances learning for most, it may give some students the impression that MATH 109 is "easy." Consequently, some students might prioritize other, seemingly more challenging courses over mine, potentially reducing their study efforts and overall success. Additionally, students who utilize every correction opportunity and attend office hours may pass without a solid understanding of the material, affecting their success in future classes. In the future, I plan to investigate how my class structure impacts students' perceptions and their effort. My goal is to find an optimal structure that promotes long-term success while maintaining a supportive learning environment.

<u>DATA 271</u>: The DATA 271 course is, Data Wrangling and Visualization, is the second data science course that Cal Poly Humboldt data science majors are required to take. I taught the course during Spring 2024 to a class of 9 students.

When I taught it, lectures were 50 minutes long on Monday, Wednesday, and Friday with a 2-hour Lab/Activity session on Thursdays. Each lecture began with announcements, including homework and lab due dates, reminders about exams, and opportunities for extra credit or professional development. The lectures consisted of going through material on slides and working through live coding examples in Jupyter Notebooks. Typically, the beginning of the lecture involved some sort of discussion question, which motivated the topic of the day or gave students the background needed to understand the topic. Then we went over conceptual materials in a few slides and worked through Jupyter Notebooks. If there was time, the last 5-10 minutes were spent working on a short "activity" problem in small groups so students could start practicing the methods themselves. During the lab session, students used the first 30-45 minutes to work on written worksheets/group quizzes in small groups. When everyone had completed the worksheet, each group took turns presenting the solution to problems at the board. Small discussions were usually initiated as we worked through solutions. Students then used the rest of the session to work on their lab assignments on computers. Outside of class, students worked on bi-weekly homework assignments in Jupyter Notebooks. They also worked on a semester-long project where they performed an exploratory data analysis on a few datasets about a topic of choice, with occasional checkpoints along the way. There were two midterms in the class, given in Week 6 and Week 11 of the semester. During finals week, they presented results from their semester project to the class.

My teaching philosophy is exemplified in this course in the following ways:

Conceptual Understanding and Connection to Real World Problems:

I like to begin each session with a discussion question to motivate the topic of the day with something the students have intuition for. For instance, in the section about web scraping, I gave the student a hypothetical scenario in which they've been asked to gather data about Cal Poly Humboldt's women's basketball team scores. The students described that their approach would involve navigating to the appropriate page on the university website, copy and paste numbers into an excel sheet or google sheet, and then import the data from that file to their python program. A few of them pointed out that this is a very tedious process and there is potential to make mistakes in translating the data. This motivated the concept of web scraping, which allows us to circumvent the drawbacks of their originally proposed approach. Beyond that, I put a great deal of effort bringing in real datasets with interesting applications that I felt the students might be interested in. I have used datasets. I also occasionally

throw in datasets including cars or video games to increase engagement. One student reported, "she engaged the class however small and had us work on different datasets that have real world applications" in course evaluations.

Communication and Reasoning:

I designed this course to emphasize problem-solving and communication skills. All homework assignments and labs involve new cases where students apply the methods learned in class. Occasionally, small but crucial elements are intentionally left out of the lecture materials, requiring students to figure them out on their own to solve the homework problems. This approach reflects the real-world experience of data scientists, who often need to read documentation and explore new methods independently. The homework is designed to encourage this kind of resourcefulness and self-reliance. In addition, there is a lot of communication practice through weekly presentations during lab and their project presentation at the end of the semester.

Positive and Inclusive Learning Environment:

I try to create an inclusive learning environment by welcoming input from every student. Often during my live coding sessions, I let the students lead the direction we go in and welcome their ideas on how to achieve a desired result. I also try to frequently pause for questions to make it clear that it is okay to not understand the code right away. One student reflected on their appreciation for "...the professor was always looking for ways to make the course even better when it was already great. The class discussions were helpful and the professor was very open to questions."

One pedagogical challenge I have encountered in this course relates to the nature of the subject matter. While there are best practices in data wrangling and visualization, there is often no single "right" way to perform these tasks. This made teaching difficult at times, as students were accustomed to expecting a definitive procedure, as is often the case in their other STEM classes. To address this, I praised multiple approaches during class discussions, helping students gradually become more comfortable with the idea of diverse methods, though some students remained uneasy. Another challenge arose from the small class size. During small group work or think-pair-share sessions, students felt the need to whisper or were hesitant to talk with their partners, as all conversations were quite audible. I addressed this by joining groups and speaking loudly to encourage other groups to speak up.

I have only taught DATA 271 once, so I did not get the chance to incorporate official feedback from evaluations, however, I did participate in the mid semester feedback program. One piece of feedback I received was that engagement in class was pretty low. I agreed with this feedback and addressed it by incorporating more class-wide discussion questions. Students also commented that they wanted quizzes in the class to help prepare them for exams. I restructured the written worksheets on Thursdays to be group quizzes that more closely modeled the types of questions that could be expected on exams. Students were happy with the changes according to the end of semester report from the mid-semester feedback program.

<u>DATA 111</u>: The DATA 111 course, Introduction to programming and Computational Thinking for Data Science, is the first introductory course that Cal Poly Humboldt data science majors are required to take. Over time, we anticipate that the course may appeal to other majors as well. I taught the course in the Fall 2023 semester to a class of 12 students.

When I taught it, lectures were 50 minutes long on Monday, Wednesday, and Fridays with a 2-hour Lab/Activity session on Thursdays. The structure for lecture and labs is identical to DATA 271. Outside of class, students work on weekly homework assignments, and they have 3 projects (each about 3 weeks long) throughout the semester. There is one written midterm given in Week 9 and a written final exam.

The course is primarily organized into three main components: introduction to programming in Python, elementary statistics, and foundations of machine learning. Most of the students in the course were data science majors, however, since the course requires no prerequisites, there were also several students from other majors including rangeland resource science, psychology, biology (ecology), and political science.

My teaching philosophy is exemplified in this course in the following ways.

HSU Personnel Data Sheet (PDS)

Revised

Conceptual Understanding and Connection to Real World Problems: The structure of this course is very similar to DATA 271. In the same way, I tried to enable conceptual understanding beginning class with discussion questions.

"I loved the way you taught this class. The topics covered were interesting, relevant, and diverse. I also liked that it was challenging, but that the grading system also set us up for success if we put the effort in."

Communication and Reasoning:

This course involves a lot of problem solving and communication. All homework assignments and labs involve new cases to apply methods students have learned in class, but there is often. In some cases, I intentionally left small tricks out of the lecture materials that were necessary to solve the homework problems. A huge part of being a data scientist is learning how to solve problems and apply methods in ways that you have never seen before, and this usually requires reading the documentation for code packages. I tried to make sure the homework required them to do that.

Positive and Inclusive Learning Environment:

I try to encourage a positive learning environment by having a friendly demeanor in class, and structuring my grading policy to avoid penalizing students with less experience. Furthermore, I utilize Jupyter Notebooks in the class, which have been shown to decrease equity gaps. "…*The option to revise HW, projects, and tests is very helpful when attempting to understand subjects you may have not understood at the time of the assignment. The in-class tutorials during lecture and the program (JupyterHub) we use for assignments make it easy to learn python even when you have no prior experience."*

While the first semester of DATA 111 went smoothly overall, I dealt with some challenges including the variety of backgrounds among students. Some were data science majors with prior coding experience, while others took the class out of curiosity with minimal background knowledge. This diversity made it difficult to strike a balance between making the concepts accessible for less experienced students while keeping them engaging for more experienced students. It also made less experienced students hesitant to participate in class discussions or activities. To address this, I tried to encouraged small groups to include a mix of experienced and inexperienced individuals (without explicitly stating this). I also implemented a flexible grading policy. After students received their initial grades on homework assignments, I allowed them to correct their mistakes and review their corrections with me in one-on-one appointments to earn partial credit. Recognizing that mastering Python syntax in a week can be challenging, I wanted to provide an opportunity for students to earn credit and encourage continuous effort. I will be teaching DATA 111 in Fall 2024. I plan to maintain a similar structure and continue to encourage active participation in the classroom.

<u>Course Evaluations</u>: The following table contains average ratings from course evaluations. Please note that response rates may appear to be low in Spring 2024 due to campus closures. DATA 111 response rates may also appear to be low since students were not properly informed that they needed to fill out evaluations for lecture and lab separately.

Question*:	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	Enrolled	Response Rate
Spring 2024												
DATA 271											9	89%
Math 109				Т	Т						46	46%
<u>Fall 2023</u>				-								
DATA 111 Lecture											12	42%
DATA 111 Lab											12	67%
Math 109									_	_	36	78%

*Questions on Evaluations

(2.2) The activities used in class (like group work, discussions, presentations) helped me better understand the course content.

(2.3) The materials used in class (like readings, articles, textbooks, videos) helped me better understand the course content.

(2.4) The instructor clearly demonstrated how each topic fit into the course.

(2.5) I received feedback on things like tests, assignments, and projects that helped me improve.

(2.6) The instructor was available to help me when they said they would be.

(2.7) I felt encouraged to explore materials outside of class to improve on what I was learning.

(2.8) The instructor was able to create an atmosphere that was respectful of diversity (for example, diversity based on ethnic, racial, or gender identity).

(2.9) The instructor set goals that challenged me to do my best work.

(2.10) The course syllabus clearly outlined class objectives, policies, and expectations.

(2.11) After taking this course, I am able to apply what I learned to improve on my thinking, problem solving, or decision making.

1. Additional information about teaching effectiveness:

I have used several methods to assess and improve my teaching effectiveness: A) attend workshops and meetings to learn more about inclusive and equitable teaching practices, B) communicate openly with my students and colleagues and ask for and incorporate feedback both formally and informally, and C) submitting grant applications that would directly support the teaching mission of the university.

A. Workshops and meetings

- i. August 21-22, 2024. Mathematics Faculty Workshop 2024 I attended a workshop in Fall 2024 to discuss promoting equity in the classrooms, developing best practices in meeting student where they are and helping them succeed, and collaborating as a department to enhance student success in our courses.
- August 4-9, 2024. HPC and Data Science Summer Institute 2024 I attended a summer institute on high performance computing (HPC) and how to incorporate methods into undergraduate classrooms. I will be teaching DATA 422 in Fall 2025, so the tools and techniques gained from this workshop will be immensely helpful in our Big Data and Cloud Computing section of the course. (*Evidence: 2024-8-12 High Performance Computing and Data Science.pdf*)
- iii. June 26-28, 2024. National Workshop in Data Science Education I attended a national workshop in Berkeley, CA to discuss data science programs and educational opportunities related to data science across the nation. During the workshop, I connected with many community college and CSU instructors to discuss strategies for teaching data science classes and how to incorporate topics of ethics, open access to resources, and shared computing tools into courses. The information from this meeting will be immensely helpful in contributing to Cal Poly Humboldt's mission to have a data science program that emphasizes "Data for Good." Most importantly, I made close connections with someone from College of the Redwoods, who wants to collaborate on building pathways. (*Evidence: 2024-4-30 National Workshop in Data Science Education.pdf*)
- iv. June 24-25, 2024. California Learning Lab Meeting (2024) I attended a meeting for recipients of California Learning Lab. I am a team member on Cal Poly Humboldt's funded project "Engaging Students through Relevant Accessible Data Science Applications" (with PI and Co-PI and Co-PI). As a team member, I attend workshops and meetings to make connections with other California colleges and universities about data science education and outreach. (*Evidence: 2024-8-12 CA Learning Lab Summer Meeting.pdf*)
- v. March 18-19, 2024. Workshop on Inclusive Teaching and Active Learning in STEM I attended a workshop hosted by Dr. Brigette Lahme and Dr. Martha Shott from Sonoma State University. During the workshop, the hosts discussed and demonstrated research-based best practices for culturally inclusive classroom strategies. They also described the creation and implementation of "Lesson Studies" in Sonoma State math and statistics classes. I was inspired by this workshop and immediately began incorporating small techniques into my classroom (e.g. Notice and Wonder, Windows and Mirrors). (*Evidence: 2024-3-19 Inclusive Teaching and Active Learning in STEM.pdf*)

- vi. February 23, 2024. California Alliance for Data Science Education Winter Meeting I presented at a statewide meeting on behalf of Cal Poly Humboldt. In the presentation, I shared progress about our new data science program including early successes and challenges of our program. From other presentations, I learned about other universities' data science programs to inform decision making and teaching practices in data science courses. (*Evidence: 2024-2-23 CADSE Winter Meeting.pdf*)
- vii. August 2023 May 2024. New faculty academy I attended a series of meetings biweekly during my first year hosted by the Center for Teaching and Learning. We discussed a variety of topics including inclusive teaching practices, building Canvas shells, and open access textbooks. (*Evidence: 2024-8-15 Michalak Letter Non-evaluative evidence Johnson.pdf*)
- viii. December 4, 2023. Data Science Community of Practice Meeting The Data Science Community of Practice meetings are organized by Dr. Kamila Larripa and Dr. Bori Mazzag as a place for people from Cal Poly Humboldt, College of the Redwoods, and other members of the community to gather and discuss data science topics. I presented at one of the meetings to share how I use Jupyter notebooks in the classroom and how they relate to inclusive teaching and active learning. I also attended 3 other community of practice meetings. (*Evidence: 2023-12-1 DS Community of Practice Meeting Presentation.pdf*)
- ix. August 18, 2023. Professional Development Day on Future Forward: Leveraging Anti-Racism for Cultural Transformation I attended the Fall 2023 University-wide professional development day and participated in a small group discussion about anti-racist grading practices. (*Evidence: 2023-8-16 Professional Development Day Fall 2023.pdf*)
- x. May 17, 2023. Workshop on Belonging and Inclusion in STEM I attended a workshop hosted by Aris Winger who spoke about how to encourage a sense of belonging in math classes. I found the workshop very helpful before my first semester and used many tips from the workshop during my first two semesters (e.g. introduction slides and activities). (Evidence: 2023-5-30 Workshop on Belonging and Inclusion in STEM.pdf)

To continue improving, I plan to attend the INSPIRE 2024 conference which is focused on the evolution of higher education, foster innovation, and enhance collaboration across California Institutions of public higher education. I will also attend the Joint Mathematics Meeting in 2025 to be on a panel discussing data science education at the undergraduate level.

- B. Communication and Feedback
 - i. March 8, 2024. Mid-semester feedback program for DATA 271 and MATH 109. I participated in the mid-semester feedback program for both of my classes in Spring 2024. I used the feedback from students to make minor adjustments to courses. For example, in my MATH 109 course, I began posting completed lecture notes and changed the homework due date times to accommodate students' needs. (*Evidence: 2024-2-4 Participation in Mid-semester Feedback.pdf*)
 - ii. March 7, 2024. One-on-one meeting with Dale Oliver after he observed my teaching Dr. Oliver and I discussed what went well and what didn't during the lecture he observed. We discussed opportunities for improvement by incorporating more paired programming, increasing use of names, ways to increase engagement. (*Evidence: 2024-2-26 Meeting with Tyler Evans.pdf*)
 - iii. Feb 26, 2024. One-on-one meeting with Tyler Evans after he observed my teaching. Dr. Evans and I discussed what went well and what didn't during the lectures he observed. We discussed how switching from a document camera to an iPad in Calculus would improve my mobility in the classroom and could increase engagement. We also had an open conversation about how to handle students who may question my abilities because of my age and gender. (Evidence: 2024-2-26 Meeting with Tyler Evans.pdf)
 - iv. October 17, 2023. Mid-semester feedback program. I participated in the mid-semester feedback program for my MATH 109 class in Fall 2023. I used the feedback from students to make minor adjustments to courses. For example, some students mentioned that the course was too quickly paced at times, so I made an effort to slow down and check in with my students. (*Evidence: 2023-9-8 Participation in Mid-semester Feedback.pdf*)
 - v. Fall 2023 Spring 2024. Informal invitations for feedback. After every exam, I have my students complete a post-exam reflection where they consider how their study habits and engagement in

the course have impacted their exam performance. During that reflection, I also ask them how I can more greatly support their learning. Many of my students take ownership of their performance and say that I should continue the class as is, however, on several occasions, I received helpful feedback such as telling a group of chatty students to quiet down because it distracts others.

- C. Grant Applications that Support Teaching
 - i. February 15, 2024. Submitted NSF XTRIPODS Grant Application I submitted an application with Dr. Kamila Larripa for the Expanding Transdisciplinary Research in Principles of Data Science grant. We proposed to collaborate with other universities and professional entities including the University of Washington and UC Davis to develop prompts for our data science senior capstone course. (*Evidence: 2024-2-19 XTRIPODS Proposal Submitted.pdf*)
- 2. Academic Advising Responsibilities (summarize) N/A. No academic advising responsibilities were assigned to me in my first year as an assistant professor.
- 3. "Assigned time" responsibilities
 - A. Spring 2024 3 WTU new faculty course release: I used this time to develop reusable curricular materials for DATA 271. Particularly, this involved creating lecture demos, labs, and homework assignments in Jupyter notebooks with automatic grading capabilities along with lecture slides and written worksheets for labs. Creating notebooks with automatic grading capabilities was particularly time consuming and would not have been possible without the assigned time. As a result, materials for the complete course are available and can easily be used by other instructors in future semesters. Assigned time was also used to build my research program. In particular, I made connections with two industry partners (based in Arcata and San Diego) who work in the hydroponics space and submit a grant application for national grants through the USDA with them.
 - B. Fall 2023 3 WTU new faculty course release: I used this time to develop reusable materials for MATH 109 and DATA 111. In MATH 109, I developed a "workbook" based on materials from Sonoma State University and the course textbook that students use as guided lecture notes in class. This workbook will be used in future semesters (including Fall 2024) by myself and other faculty and lecturers to contribute to departmental efforts for course coordination. For DATA 111, I made several modifications to homework assignments, labs, and activities to include datasets from our university athletics teams, local restaurants, local wildlife populations in an effort to make the applications interesting for Cal Poly Humboldt students and connect them to their place. The assigned time was also used to write three applications for national grants.

Evaluation of Current Progress According to Mathematics RTP standards:	The table below displays RTI
standards that I have met to date.	

Category	Item	Evidence
Essential	[1] Effective teaching as indicated through evidence such	Anonymous course
	as student evaluations of courses (average score	evaluations
	approximately 4 out of 5 our higher for the majority of	
	questions/courses) peer evaluations, letters from recent	
	graduate or former students, or other relevant data	
Essential	[2] Evidence of accessibility to students including	Syllabi from 2023-2024
	weekly office hours	AY showing 5 office
		hours per week
Essential	[3] Cooperation in departmental efforts to assess and	Evans collegial letter
	improve courses with which the faculty member has	discussing participation in
	been involved	MATH 105 coordination
Essential	[4] Cooperation in departmental efforts to assess major	Larripa letter discussing
	programs with which the faculty member has been	participation in data
	involved	science program
		development
Essential	[5] Clear communication of course objectives	Syllabi from 2023-2024
		AY
Essential	[6] Evaluation/assessment practices consistent with	Syllabi from 2023-2024

1960		
	department student learning outcomes	AY and sample exams
Essential	[7] Appropriate preparation for all class meetings	Anonymous course evaluations
Essential	[8] Complete coverage of required course content	Syllabi from 2023-2024 AY
Indicators of Excellence	[9] Consistently earning overall student evaluation scores of 4 out of 5 or more while upholding department academic standards	Anonymous course evaluations
Indicators of Excellence	[11] Submitting a grant application that would directly support the teaching mission of the university	XTRIPODS grant application
Indicators of Excellence	[13] Assuming difficult teaching assignments and achieving positive results. The challenge to the instructor, for example, may arise from the subject matter itself, the instructor's lack of familiarity with the subject matter, the audience involved or the number of different preparations	New materials created for DATA 111 and DATA 271
Indicators of Excellence	[15] Maintaining/updating a course through substantial related readings, scholarship, and/or travel	Conference and DataFest travel while teaching new courses
Indicators of Excellence	[17] Participating in departmental efforts to assess, standardize, improve, and monitor the delivery of courses with which the faculty member has been involved	Evans collegial letter discussing participation in MATH 105 coordination and Larripa collegial letter discussing participation in data science major
Indicators of Excellence	[18] Preparing high-quality teaching materials such as students' solution manuals, worksheets, handouts or class-related website	Lab, lectures, and homework assignments in data science with auto- graded checks
Indicators of Excellence	[19] Successfully expanding teaching approaches by introducing projects that go beyond the typical homework assignment, attending meetings or seminars to enhance or expand teaching styles, successfully implementing those teaching styles in the classroom	Implemented concepts discussed at the workshop hosted by Sonoma State professors (e.g. "windows and mirrors" activity)
Indicators of Excellence	[20] Implementing effective strategies to create inclusive learning environments in which all students are invited to participate and succeed	I implemented tools the workshop hosted by Aris Winger to promote inclusivity (introduction slides)

I have met all Essential criteria and have accumulated eight Indicators of Excellence. Based on these accomplishments and my length of employment, I am on track to achieve a rating of Excellent in teaching effectiveness.

III. SCHOLARLY/CREATIVE ACTIVITIES (Appendix J, Section IX.B.2.)

a. Scholarly activities completed

- 1. Research Grant Applications
 - i. USDA NIFA Agriculture and Food Research Initiative Sustainable Agricultural Systems (*in review*).
 - I am PI on an external grant application titled Enhancing Food Safety and Nutrition by Utilizing Machine Learning Technologies in Controlled Environment Agriculture. The goal of this project is to advance Controlled Environment Agriculture (CEA) technology and practices to provide a reliable, resilient, and sustainable supply of healthy, nutrient-dense leafy greens. To achieve this long-term goal, we identified several supporting objectives that address key aspects of CEA production, from pre-harvest to postharvest stages, as well as food safety, user experience, and education. Central to these efforts is the development of a Farm Management Platform (FMP) by Ryzee, in partnership with AmHydro, Cal Poly Humboldt, and Auburn University, which aims to simplify operational management and production planning for CEA operations of any size. As the PI, I contributed to the development of research objectives, facilitate communication with the team, contribute to budget management. This grant application was submitted June 2024 and is currently under review. Depending on the funding outcome, this will be a CATEGORY I or II contribution. (Evidence: 2024-6-11 USDA NIFA AFRI SAS *Proposal Acknowledgment.pdf*)
 - ii. USDA NIFA Agriculture and Food Research Specialty Crop Research Initiative (not funded).
 - I was PI on a project titled Strengthening the US Lettuce Industry with CEA Optimization. This project aimed to use machine learning and advanced sensors to optimize the production of lettuce grown in Controlled Environment Agriculture systems. The project involved a partnership among Cal Poly Humboldt University and hydroponic and data science industry experts (American Hydroponics (AmHydro), and Ryzee, Inc.). Our industry partners provide the CEA systems along with hardware and software to collect frequent data on lettuce crop stages. As the PI, I contributed to the development of research objectives, wrote a significant portion of the project proposal, facilitate communication with the team, and contributed to budget management. This grant application was submitted December 2023. The project was not funded because of a formality mistake that my SPF specialist made. This is a CATEGORY II contribution. (*Evidence: 2023-12-14 USDA NIFA AFRI SCRI Submission not accepted.pdf*)
- iii. USDA NIFA Agriculture and Food Research Data Science for Food and Agricultural Systems (*not funded*).
 - I was PI on a project titled Utilizing Data Science with Machine Learning to Optimize CEA Farm Operations and Management. This project aimed to use data science and data sensor technology in the development of a digital farm data management platform. The platform is designed to increase the productivity of farmers practicing Controlled Environment Agriculture (CEA) by providing a better window into farm operations and plant growth dynamics in real time. The project involved a partnership among Cal Poly Humboldt University and hydroponic and data science industry experts (American Hydroponics (AmHydro), and Ryzee, Inc.). As the PI, I contributed to the development of research objectives, wrote a significant portion of the project proposal, facilitate communication with the team, and contributed to budget management. This grant application was submitted November 2023. Unfortunately, it was not funded due to insufficient preliminary data. This is a CATEGORY II contribution. (*Evidence: 2023-11-28 USDA NIFA AFRI DSFAS Proposal Acknowledgement.pdf*)
- iv. USDA NIFA Agriculture and Food Research Critical Agricultural Research and Extension (*not funded*).

I was co-PI on a project titled Revitalizing Area-Wide Management of Bollworm and Tobacco Budworm by Integrating Biological and Economics Modeling for Grower Adoption. The overall objective of this project is to design a cost-effective area-wide management program to keep Heliothinae pests (bollworm and tobacco budworm) below economic threshold levels and to measure potential for adoption among North Carolina field crop growers. My role on the project was to develop the mathematical models for population dynamics of Heliothinae pests and use stochastic dynamic programming to aid in decision making. This grant application was submitted September 2023. Unfortunately, it was not funded due to insufficient preliminary data. Our research team has generated preliminary data since then, so we intend to resubmit. This is a CATEGORY II contribution. (*Evidence: 2024-4-24 USDA NIFA AFRI CARE Proof of Submission.pdf*)

- 2. Presentations
 - i. April 12, 2024. Chico State Mathematics Colloquium. Title: Chaos in the Wild: Unveiling Nature's Dynamic Patterns. Intended audience: math and biology department faculty and students. CATEGORY II (*Evidence: 2024-4-12 Chico State Colloquium Flyer.pdf*)
 - ii. March 28, 2024. Cal Poly Humboldt Mathematics Department Colloquium. Title: Chaos in the Wild: Unveiling Nature's Dynamic Patterns. Intended audience: math and biology department faculty and students. CATEGORY II (*Evidence: 2024-3-28 Kim Letter Humboldt Math Colloquium Thank You.pdf*)
- March 1, 2024. Cal Poly Humboldt Biology Department Seminar Series. Title: Data Driven Methods for Insect Pest Management. Intended audience: biology department faculty and students. CATEGORY II (*Evidence: 2024-1-10 Tomescu Email - Invitation to Biology Seminar.pdf*)
- iv. November 10, 2023. CSU Mathematical Sciences Conference in Bakersfield, CA. Title: Data Driven Methods for Insect Pest Management. Intended audience: CSU math and stats faculty and graduate students. CATEGORY II (*Evidence: 2023-11-10 Scientific Program _ California State University, Bakersfield.pdf*)

b. Scholarly/creative activities in progress

i.

My research aims to bridge the gap between theory and practice in quantitative ecology. Data-driven machine learning models provide a powerful approach to predicting population dynamics without necessitating specific inputs for all ecosystem components as traditional mathematical models do. However, these models are often constrained by the quality and quantity of the available data. In my previous, current, and planned research, I am dedicated to advancing data-driven methodologies that enable efficient and direct utilization of ecological data. By enhancing these methods, I strive to overcome data limitations and improve the accuracy and applicability of ecological predictions. Furthermore, I integrate machine learning forecasts with optimal control theory tools to develop management strategies that promote sustainability. This interdisciplinary approach ensures that management decisions effectively balance the costs and benefits of competing objectives, particularly in high-impact systems such as fisheries and agriculture. Through this combination of innovative techniques, my research seeks to contribute to more sustainable and resilient ecological management practices.

- 1. Peer reviewed journal articles submitted or under review
 - (2024) Empirical Dynamic Modeling for Prediction and Control of Pest Populations. [Manuscript submitted]
 - In the manuscript, we propose a data-driven machine learning method can effectively predict population outbreaks of insect pests. This approach enables us to optimize control strategies, targeting pests before outbreaks occur. The specific technique explored is empirical dynamic modeling paired with stochastic dynamic programming which allows us to work with incomplete and sparse data related to insect pests. We show that this framework reduces outbreaks in several simulated and empirical scenarios. Our study provides a promising framework to reduce losses from pests. The intended audience for this work is quantitative entomologists and ecologists who can use this technique in management. This research was done in collaboration with colleagues at UC Santa Cruz and the National Oceanic and Atmospheric Administration. As the lead author on this project, I developed the project idea,

led the analysis, and wrote and revised manuscript. Some of this work was completed during my Ph.D. program, but updates to the manuscript and analysis have been completed during my time at Cal Poly Humboldt. We anticipate that this work will be published during the 2024-2025 academic year. (*Evidence: 2024-8-7 Ecological Modelling Submission Confirmation.pdf*)

ii.

(2024) Reconstructing

Bifurcations and Anticipating Tipping Points with Empirical Dynamic Modeling. [Manuscript submitted]

- Many ecosystems can exist in alternative dynamical regimes for which small changes in an environmental driver can cause sudden jumps between regimes. However, predicting the dynamics of regimes that occur under unobserved levels of the environmental driver has remained an unsolved challenge in ecology with important implications for conservation and management. In this manuscript, we show that integrating population time-series data and information on the putative driver into an empirical dynamic model allows us to predict new dynamical regimes without the need to specify a population dynamics model. We demonstrate our approach on simulated, laboratory, and field examples. These results lay the groundwork for making rational decisions about preventing, or preparing for, regime shifts in natural ecosystems. This work is intended for quantitative ecologists and ecological decision makers. This research was done in collaboration with colleagues at UC Santa Cruz, UC Davis, and the National Oceanic and Atmospheric Administration. As a co-author on this project, I contributed initial code to the analysis and mentored a graduate student throughout the main analysis. I also wrote a portion of the original draft manuscript and revised the manuscript. We anticipate that this work will be published during the 2024-2025 academic year. (Evidence: 2024-8-6 Medeiros Email - Manuscript Submitted.pdf)
- 2. Grant Applications
 - USDA NIFA Agriculture and Food Research Critical Agricultural Research and Extension.
 - [resubmission]

I was co-PI on a project titled Revitalizing Area-Wide Management of Bollworm and Tobacco Budworm by Integrating Biological and Economics Modeling for Grower Adoption. The overall objective of this project is to design a cost-effective area-wide management program to keep Heliothinae pests (bollworm and tobacco budworm) below economic threshold levels and to measure potential for adoption among North Carolina field crop growers. My role on the project was to develop the mathematical models for population dynamics of Heliothinae pests and use stochastic dynamic programming to aid in decision making. This is a resubmission of the project with the same title from the previous year. All application materials are complete and the primary institution (NCSU) intends to submit in September 2024. (*Evidence: 2024-8-8 USDA NIFA AFRI CARE Routed.pdf*)

c. Non-evaluative evidence of scholarly/creative activities is included in Section 8 of the WPAF.

- Affiliation with biology department
 - After giving a talk at the Department of Biology Friday Seminar, I made connections with faculty and students in the biology department. They added me to their graduate faculty and I began informal communications with a couple students () about their research.) about their research. student regarding their masters research projects. (*Evidence: 2024-4-18 Bourdeau Email Welcome to Biological Sciences Graduate Faculty.pdf*)
- Nominated for McCrone Award (not a recipient): (Evidence: 2024-3-4 Wright Email McCrone Award Nomination.pdf)

Evaluation of Current Progress According to Mathematics RTP standards: The table below displays RTP standards that I have met to date.

l	Description
extramural meeting presentations	Research presentation at CSU Mathematical Sciences Conference Fall
	Extramural meeting presentations

		2023
Category II	[9] Academic Seminars	Three research
		presentations in Spring
		2024
Category II	[11] Unfunded extramural grant	Grant applications
	proposals	submitted and not funded:
		CARE, DAFAS, SCRI

I have accumulated seven Category II contributions, and have three Category I contributions in progress. Based on these accomplishments, and my length of employment, I am on track to receive a rating of Good or higher in Scholarly and Creative Activities.

IV. SERVICE (Appendix J, Section IX.B.3.)

a. Service responsibilities

- i. August 15, 2024. Panel at New Faculty Orientation I attended the "Making Connections" session of the New Faculty Orientation and shared my experience getting involved in the community. *Type of service:* University service. *Time spent:* 1 hour. (*Evidence: 2024-8-20 CTL Letter New Faculty Orientation.pdf*)
- ii. April 12-14, 2024. DataFest advisor and judge I attended DataFest 2024 at Chico State University and served as an advisor for the competing teams and also judged the competition on the final day. *Type of service:* Service to profession. *Time spent:* 36 hours. (*Evidence: 2024-4-5 Lytal Email - DataFest Coach:Judge Confirmation.pdf*)
- March 30, 2024. Spring Preview I attended the first Spring Preview 2024 for admitted students. I spoke with prospective students and families about our data science and math programs and led building tours. *Type of service:* Department service. *Time spent:* 2 hours. (*Evidence: 2024-4-2 Larripa Letter Teaching, Scholarship, Service.pdf*)
- iv. March 18, 2024. Data Science program postcards I wrote 70 postcards to admitted data science students and offered to answer any questions they have about the program. *Type of service:* Department service. *Time spent:* 2 hours. (*Evidence: 2024-4-2 Larripa Letter Teaching, Scholarship, Service.pdf*)
- v. Spring 2024. Math 105 Coordination I attended meetings to discuss course coordination for the MATH 105 Calculus for Biological Sciences course. In these meetings, we reviewed textbooks, discussed essential learning outcomes, and reviewed course projects. *Type of service:* Departmental service. *Time spent:* 1 hour biweekly. (*Evidence: 2024-1-25 Dugaw Email MATH 105 Discussion.pdf*)
- vi. AY 2023/2024. Mathematics Department Scholarship committee I was a member of the scholarship committee where we met to decide recipients for our departmental scholarships. I also made awards certificates for our annual department awards ceremony. *Type of service:* Departmental service. *Time spent:* 10 hours. (*Evidence: 2024-2-27 Petrillo Email Proof of Scholarship Committee.pdf*)
- vii. AY 2023/2024. Department meetings I attended small group meetings about the development of the new data science program. We discussed topics for upper division courses, proposed certificates, and discussed the possibility of offering a minor in data science. *Type of service:* Departmental service. *Time spent:* 0.5-1 hour per week. (*Evidence: 2024-4-2 Larripa Letter Teaching, Scholarship, Service.pdf*)
- viii. AY 2023/2024. Department meetings I attended every department meeting in my first year and participated in relevant discussions. *Type of service:* Departmental service. *Time spent:* 1 hour per week. (*Evidence: Evidence: Rizzardi Letter Teaching, Service*)
- ix. AY 2023/2024. PhD committee I served as a committee member for a Ph.D. student at Memorial University of Newfoundland. I reviewed the student's dissertation proposal and attended her presentation. *Type of service:* Service to profession. *Time spent:* 8 hours. (*Evidence: 2023-11-3 Chen Email Committee Member Request.pdf*)

b. Membership in scholarly organizations

- i. February 2024 present. Team member on California Learning Lab Grant. As a team member of the California Learning Lab Grant, I attend meetings and workshops about data science education and present when necessary. (*Evidence: 2024-1-30 Larripa Email Invite to Learning Lab Team.pdf*)
- ii. October 2023 present. Reviewer for Journal of Undergraduate Research I am listed in a pool of reviewers for the Journal of Undergraduate research and will review submissions related to my field of study. *Note:* I have not been asked to review a submission yet. (*Evidence: 2023-10-3 Journal of Undergraduate Research Reviewer.pdf*)
- iii. June 2023 present. Member of California Alliance for Data Science Education (CADSE) As a member of CADSE, I attend quarterly meetings to stay informed about the current state of data science education in California. I occasionally present at these meetings when leadership requests. (*Evidence: 2024-2-23 CADSE Winter Meeting.pdf*)

c. Non-evaluative evidence of service is included in Section 9 of the WPAF.

i. In Spring and Summer 2024, I worked with Cal Poly Humboldt's IT team to help develop a JupyterHub image on the National Research Platform. This image will be used for data science and other STEM classes that utilize Jupyter Notebooks. This activity aligns with Appendix J Section IX B.3.g. (*Evidence: 2024-8-2 Chalasani Email - Jupyter Hub Meeting.pdf*)

Evaluation of Current Progress According to Mathematics RTP standards: The table below displays RTP standards that I have met to date.

Category	Item	Description
Essential	[1] Regularly participate in department committees and meetings	Attended meetings, scholarship committee
Essential	 [3] Demonstrate a pattern of service activities, which may include Conduct of advising duties considerably above the normally expected level Community service activity that involves faculty member's expertise or enhances the reputation of the department Service on college or university committees Service in a special capacity for the department Service in local, regional, state, or national mathematics orgs 	Demonstrated several types of service to the department in Year 1
Breadth	[5] Service on master's committees for students outside the department	Memorial University of Newfoundland's PhD committee
Breadth	[6] Service on active committees of a professional organization	Participation in CADSE

I have met all appropriate Essential criteria and have engaged in two activities which show Breadth. Based on these accomplishments and my length of employment, I am on track to receive a rating of Good or higher in Service.