Chamberlain, Darryl

Assistant Professor, College of Arts and Sciences

Manager: Karen Keene

Evaluated By: Karen Keene

2021 Worldwide Faculty Performance Evaluation

Organization: Department of Mathematics, Science and Technology (Karen Keene)

Location: Massachusetts

01/01/2021 - 12/31/2021

Overall Performance

Manager Overall Evaluation

Rating: 4-Exceeds Satisfactory

Comment: Overall, Dr. Chamberlain has an excellent beginning as a tenure-track assistant professor. He brings a wealth of educational research knowledge, needed in the department both in terms of mathematics education and STEM education. He is integrating into the online teaching community, has strong marks on his first experience teaching here and is very involved in research projects. He has started developing new courses as well, and is an active participant in the Department. His performance plan is good for 2022.

Acknowledgement

Employee

Entered by: Darryl Chamberlain **Date:** 01/31/2022

Status: Acknowledge

Comment:

Evaluation Items

Criterion I - Teaching Effectiveness: See Faculty Handbook, Part I: Section 8.3.1

Manager Evaluation		Employee Evaluation	
Rating:	3-Satisfactory		
Response:	Dr. Chamberlain started teaching in August 2021 and thus has only one course at this point. His student observations were positive (Calculation for Instructor Experience was 4.48). His observation from RCTLE showed the was able to meet all the requirements for teaching an online course, except responding to 1/3 of first posts. He was very engaged with the class and provided significant feedback in discussions as well as grading tests. He is involved already in redeveloping MATH 111 and will make it more engaging. This will happen in Spring	**Response:**	3/5 - Average Taught 1 course in September 2021. Evaluations were similar to College and Campus averages. Mean of Means Calculation for Instructor Experience was 4.48 vs 4.53 for College and Campus. 3/4 student comments on instructor were positive while 1/4 were neutral.

2022.

He is a reflective teacher and has been very thoughtful about becoming an online teacher. Note his thoughts below.

Best student comment:

- I didn't know what to expect out of my first ever online class, but I have to say - It went better than expected. I found Dr. Chamberlains' reference material to be a significant help, and appreciate that he was always there to answer my many questions without making me feel like an idiot. I was surprised and impressed by his meaningful responses to everybody who managed to post in the discussion board.

Worst student comment:

- I felt he was more of an advisor than a teacher, if I needed assistance outside of what the course provided I would just ask him. He was very timely and conducted business appropriately and that was about it.

One thing I tried that succeeded in September 2021 was to post the assignments and due dates as a table in the announcements. Students were uniformly positive about the weekly table and said it helped them know what needed to be done in a better format than the Canvas calendar feature.

I also started working on a MATH 111 Course Redesign. In particular, I began generating ideas for discussion activities that encouraged students to synthesize and create knowledge. These activities will be finalized in the January 2022 term.

Criterion II - Scholarly and Professional Activity: See Faculty Handbook, Part I: Section 8.3.2

Manager Evaluation

Rating: 5-Outstanding

Response: Dr. Chamberlain in his first four months is showing a strong beginning. He has submitted two journal articles, made one presentation and received an internal grant for his research. He also applied and was

Employee Evaluation

Response:

5/5 - Stellar

Exceptional volume of scholarly activity in

accepted into Project NExT, the flagship program for new faculty that are strongly committed to teaching. He is working with colleagues from the University of Florida and integrated well into a research team here. Finally, he has become a coPI on an established NSF grant and has added significantly to that work.

first 4 months of position compared to tenure expectations.

Internal and External Grants - 2 [1 total needed for tenure]

- PI for Faculty SEED Grant *[internal grant]* for $4069 with no co-PIs. Applied for in September 2021, received in October 2021, and currently in progress. Data has been collected and is being analyzed by myself and an undergraduate research assistant.
- Added to active NSF grant "Community of Inquiry and Cognitive Load" *[external grant]* as co-PI with Dr. Emily Faulconer (PI) and Dr. Beverly Wood (Co-PI). Responsible for data cleaning, data analysis, and dissemination via scholarship and presentations.

Publications under review - 2 [5 total needed for tenure]

- Paolucci, C., Chamberlain Jr., D., Redding, C., Vancini, S., & Reese, A. (first submission Nov 2021). Critical lessons from certification exam preparation materials for mathematics teachers' content knowledge and professional learning. Journal of Teaching and Teacher Education.
- Chamberlain Jr., D. (first submission Sept 2021). How one instructor can teach a large-scale, mastery-based College Algebra course online. Problems, Resources, and Issues in Mathematics Undergraduate Studies.

Publications in preparation - 1

- Faulconer, E., Wood, B., & Chamberlain Jr., D. (revising first draft). A Case Study of Community of Inquiry Presences and Cognitive Load in an Asynchronous Online STEM Course. Journal of Internet & Higher Education.

Presentations - 1 [5 total needed for tenure]

- Chamberlain Jr., D., Reed, Z., & Keene, K. (2021, Nov 20). Investigating social construction of knowledge during asynchronous discussions. 5th Northeastern Conference on Research in Undergraduate Mathematics Education. New Brunswick, NJ (virtual).

Active Research Projects - 5

- **PI:** Internal grant-funded project on autonomous feedback to improve student learning in Precalculus. Project started in September 2021. Completed data collection and currently working on data analysis.
- **Co-PI:** External grant-funded project on Community of Inquiry and Cognitive Load with Dr. Emily Faulconer (PI). Grant funding began July 2021 and joined grant in September 2021. Completed data collection for first phase and currently working on data analysis.
- **Co-PI:** Non-funded project on analyzing types of knowledge construction in asynchronous discussions with Dr. Zackery Reed (PI) and Dr. Karen Keene (co-PI). Project started in September 2021. Designing and testing theoretical framework through a pilot test. Currently analyzing data.
- **PI:** Non-funded project with undergraduate researcher at the University of Florida. Project began August 2020. Completed data analysis and presented preliminary results in RUME proceedings paper. Currently working on a new manuscript and preparing for the second stage of data collection to begin in August 2022.
- **Co-PI:** Internal grant-funded project on resources non-traditional secondary mathematics educators have to prepare for Florida certification. Project began March 2020. Paper under review.

Criterion III - Service: See Faculty Handbook, Part I: Section 8.3.3. Include special appointment duties

Manager Evaluation		Employee Evaluation
Rating:	4-Exceeds Satisfactory	
Response:	Dr. Chamberlain has proven to jump right in to service in his first four months. He has been an active participant in the Department's Community of Practice. He	Response:

also is serving as a Course monitor and Research Mentor. His service in the Discipline is especially noteworthy. He serves on the program committee for the Research for Undergraduate Mathematics Education (RUME) community, and the Mathematics Association of America Committee on Technologies in Mathematics Education. This is extraordinary for someone this early in their career. He has done several reviews as well.

4/5 - Above Average

Strong volume of both ERAU and Professional service far above the expectations of the position's service percentage (10%).

ERAU Service

- **Department Service** - STEM Education Department Community of Practice
- **Department Service** - Course Monitor (GNED 103 and MATH 106)
- **College Service** - COMPASS Research Mentor

Professional Activity

Participation in Professional Societies - 2

- *Member, Research in Undergraduate Mathematics Education Program Committee.* Assists in organizing yearly national conference.
- *Member, Mathematics Association of America Committee on Technologies in Mathematics Education.* The mission of the Committee on Technologies in Mathematics Education is to synthesize and disseminate innovative research, resources, and practices on technology that lead to effective teaching and learning in undergraduate mathematics. Assists in writing MAA Instructional Practices guide.

Journal Reviews - 4

- Aug '21 - Journal of Assessment
- Sept '21 - Mathematical Thinking and Learning
- Sept '21 - Educational Research and Reviews
- Oct '21 - Cogent Education

Conference Reviews - 7

- 7 papers reviewed for Research on Undergraduate Mathematics Education Conference

Professional Development

- Acceptance into MAA Project NExT professional development program for 2022-2023. Professional Development for innovative approaches to teaching introductory/advanced mathematics courses, involving undergraduates in mathematical research, writing grant proposals, and balancing teaching with research.

Evaluator's Contract Renewal Recommendation

I recommend renewal or non-renewal of faculty member's contract with the University:

(Please include a rationale for non-renewal in the "Answer" section below, if applicable)

Manager Evaluation

Rating: **Renewal**

Response:

Performance Plan

Teaching plan:

Areas to consider include the following, quality of syllabus, use of oral and written communication assignments, use of technology, use of library,

teaching methods, use of aviation examples, and evaluation of students.

Manager Evaluation

Response: This plan looks good.
As mentioned above, we usually put Course Redevelopment here, so some objectives about that would be very helpful. The rest looks fine.

Employee Evaluation

Response:

Performance Objectives:

- Increase students' evaluation of course to match or exceed averages for College and University.
- Improve discussion activities as part of Course Redesign. Discussions should improve student-to-student correspondence, improve relevance to course objectives, and encourage students to perform high-level conceptual tasks such as synthesizing knowledge or creating new knowledge.

Areas to improve:

Discussion Activities

- Rewrite discussions (as part of Course Redesign) to improve student-to-student correspondence.
- Create video explanations for typing math.
- Integrate more aviation-specific examples within my responses to students.

Increase Personalized Correspondence

- Send email (voice and/or video) to each student every two weeks to keep line-of-communication open and provide emotional coaching to help students succeed.
- Include voice and/or video feedback for exams.

Improving in these two areas should increase students' evaluation of course.

Scholarly and professional activity plan:

Faculty meeting attendance and participation, meetings with academic and administrative supervisors and colleagues, and other relevant activities.

Manager Evaluation

Response: Darryl, Do you have any manuscripts in process you could mention? Can you elaborate on Project NExT?
You are in good shape- please move the activity into service that was mentioned in evaluation.
Looks good!

Employee Evaluation

Response:

Scholarly Activity

Internal and External Grants - Submit an external grant (NSF ECR:Core)
Tenure expectation is to apply for 1 internal or external grant. I have already applied for and received an internal grant. This new grant would extend the previous grant and produce an open-source digital math notebook framework to combine note taking, homework, comprehension questions, and discussions.

Publications - Submit 3 for review
Tenure expectation is to secure at least 5 accepted publications. Submitting 3 publications for review from the 5 active research projects I'm currently involved in should produce at least 1 accepted publication in the year period and keep me on-track for tenure promotion. 1 paper is already in draft stages and should be submitted within the first quarter of the year.

Presentations - Complete 4
Tenure expectation is to secure at least 5 refereed regional, national, or international conferences. I have already secured 3 Conference Presentations for 2022: JMM, RUMEC, OLC Innovate. As part of a national professional development program, I will attend another conference (MathFest). It would be reasonable to apply for and

present at MathFest.

Professional Activity

Professional Development - Workshop and Professional Development Program
Accepted into MAA Project NExT professional development program for 2022-2023. This professional development program discusses issues relevant to new tenure-track faculty such as:

- Innovative approaches to a variety of introductory and advanced courses;
- Strategies for engaging students in specific mathematics courses;
- Supporting students from historically underserved groups;
- Involving undergraduates in mathematical research;
- Preparing future K-12 teachers of mathematics;
- Writing grant proposals; and
- Balancing teaching and research.

In addition, I will look for and secure a professional development workshop to improve integration of technology in teaching. This will keep me abreast of the latest developments in technologies in mathematics education.

Referee Journals - 8 total
Completed 4 journal article reviews in August - December 2021. Therefore it would be reasonable to project 2 journal articles per major term (excluding summer).

University and industry service plan:

Committee and other assignments. Include special appointment duties.

Manager Evaluation

Employee Evaluation

Response: See above to add in your service to the discipline here.
I'd like to see you add an idea of how you might contribute to the CoP? A presentation or something? You could also add in about being a peer mentor to someone? \
Looks good.

Response:

Department Service

- STEM Education Department Community of Practice - Present ways to incorporate coding into learning mathematics.
- Course Monitor (GNED 103 and MATH 106)
- Volunteer to be a Peer Mentor.

College Service

- COMPASS Research Mentor
- Undergraduate Curriculum Committee

Professional Service

Continue participation from AY 2021.

- *Member, Research in Undergraduate Mathematics Education Program Committee.*
- *Member, Mathematics Association of America Committee on Technologies in Mathematics Education.*