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### **A formula for success**

### **UWL Math Education TA Program making a difference for future educators**

Written by UW-La Crosse University Marketing & Communications

A new program in UW-La Crosse’s [Mathematics & Statistics Department](https://www.uwlax.edu/academics/mathematics/) is helping to mold the next generation of math educators.

During a curriculum redesign in 2020-21, several instructors came together to brainstorm a better way to prepare students interested in teaching middle and high school math after college.

The result was the Math Education Teaching Assistant Program, which allows aspiring educators to gain experience co-leading a general education math course that closely mirrors what they will see in an actual high school.

“Most students who become math teachers do it because math was their favorite subject in school,” says [Matthew Chedister](https://www.uwlax.edu/profile/mchedister/), associate professor of mathematics and statistics.

“But most students who take college algebra at a university see it as a gen ed or a pathway to other classes they want to take. Our preservice teachers tend to be strong math students, but this is the first time they have to explain something or work with a student, and it helps them to recognize all the parts of math they don’t fully understand or can’t yet explain. The skills needed to teach something are much deeper than the skills needed to pass a test.”

Each semester, the program enlists a small handful of math education students to assist in courses in college algebra, precalculus or statistics.

As teaching assistants, they attend about two classes each week, supporting the instructor in explaining the lesson and fielding questions. Often, they also run office hours and coordinate test review sessions.

Caitlin Herminath, a senior mathematics education major from New London, was a teaching assistant in Chedister’s fall 2023 college algebra course.

She says the experience was hugely beneficial in honing her craft as both a mathematician and a teacher.

“First, it refamiliarized me with content that I have not worked with in years,” she says. “Being able to hear Dr. Chedister teach concepts in a different way than I may have learned them gave me another way that I could teach concepts when I am in a classroom of my own. Being a TA (also) allowed me to see the misconceptions that students carry with them surrounding certain content, which will help me address those misconceptions in my own classroom one day.”

Chedister has seen firsthand how the program can make a positive difference for students. But it also eases the burden on faculty, allowing them to improve their own teaching.

“A lot of these classes have 30 to 40 students in them, and when multiple students have questions at the same time, it can be difficult to work the room,” Chedister says. “Having Caitlin in the room with me — she’s a strong teacher candidate, she knows the math, and she was able to help explain it to students who might be struggling. By having an extra body in the room, we have the opportunity to interact with more students and have deeper discussions.”

Herminath, who is set to student teach in the spring, says it was particularly helpful to work with first- and second-year students at UWL — a similar population to the one she’ll be teaching at her future high school.

Serving as a teaching assistant helped her overcome another important obstacle in her journey to becoming a teacher: gaining confidence in herself.

“Being a TA helped me become more comfortable in a classroom environment,” she says. “In the past, I have tutored and taught students in small groups. Teaching in front of a large class, however, is a little more challenging and intimidating. Having this space to get over any anxieties that come with public speaking was helpful to me.”