

STEM SPOTLIGHT

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Q How did you select your college major?

A I have both a bachelor's and master's degree in Chemistry with Louisiana, Texas, and Tennessee teaching certifications in chemistry, mathematics, and physics. I chose a doctorate in Education because I wanted to conduct research in education that could be used to help schools of education produce highly effective teachers.

Q What was the biggest influence in your selection of major/ career?

A From the time when I was in junior high school, I wanted to be a scientist. When I was in the eleventh grade, my chemistry teacher, Mrs. Beverly Moser, a phenomenal chemistry teacher, had a degree in chemistry. Being in her class inspired me to major in chemistry. During my junior year in college, I substituted part-time at my former high school. At that time, I realized that good teachers were desperately needed there and decided that I should become a science and math educator rather than a chemist.

Q If you could go back to high school and select any elective course to take that would have better prepared you for college, what would it be?

A I would take high school Latin, computer programming, and automotive science. High school Latin would have given me richer working vocabulary for my writing courses. Computer programming in secondary school would have prepared me for Basic and Fortran (remember those early programming languages?) programming courses. I used to be amazed at how easily my peers learned Basic, Fortran, Pascal, COBOL, and ADA programming languages. It was because they took computer programming when we were in high school. Learning to code helps sharpen one's analytical skills. This summer at our STEMulation Camp for rising 6th, 7th, and 8th graders, we taught SCRATCH computer coding. By the end of the camp, the kids were designing their own online video games.





Q What is your favorite aspect of your job?

A Equipping our pre-service science teachers with current, effective educational tools that will help them become highly qualified instructors.

Q How do you/your company make a positive impact on society/our community?

A As an educator, my goal is to prepare students to become productive citizens and hopefully lifelong learners, who in turn, will inspire others to do the same.

Q What is the most interesting thing you have been able to do in your career?

A In the two years that I have been at UT-Martin, I have developed a summer STEM camp for middle school children (UT Martin's STEMulation Camp for rising 6th, 7th, and 8th graders). Each year, the camp incorporated more STEM based activities. For example, this summer's STEM camp included SCRATCH computer programming, solar car construction, rocketry, bridge building, and numerous hands-on constructivist activities. The camp facilitators were UT-Martin pre-service teachers. They were required to develop lesson plans, for all activities, and apply what they had been taught in their courses. I feel that their experiences gained in the STEMulation Camp will help them be more effective teachers when they have their own students.

Q What makes you get up each morning excited about your profession?

A Knowing that what I do impacts the lives of young people, both directly and indirectly. Directly, because I work individually with my students (in my science and math methods courses), and indirectly because once they leave UT-Martin as teachers, they will impact hundreds (actually, thousands over the course of their teaching careers) of young people in schools across the nation.

Q How does your career incorporate STEM (Science, Technology, Engineering, and Math)?

A As a science and math methods teacher, I introduce students to software and hardware that can be used to enhance student comprehension. For example, this semester, my science methods students were introduced to SCRATCH programming (h/t to Brian Russell of the Irving Independent School District, Irving, Texas), Vernier lab quest data collection units, smart board applications, Web Quest applications, Edmodo applications, Go Animate applications, Symbaloo applications, Class dojo management system, and SPSS statistical analysis. Next fall, I plan to introduce even more STEM-based applications and equipment in my methods classes. I have already decided that I will introduce them to robotics applications.

Q What advice would you like to share with K-12 students who are considering your profession?

A Have a strong desire to help others. I would encourage them to cultivate a passion for learning. Effective teachers are life-long learners. Always be open to new ideas and different ways to help children comprehend their world. Remember that not everyone learns the exact same way or at the same rate. Most importantly, I would let them know that sometimes, they might be the one person in a child's life who inspires them to become the very best that they can be.