How can a large university effectively use graduate teaching assistants (GTAs) with limited or no teaching experience to deliver multiple sections of a gateway mathematics course while maintaining a standardized curriculum? Traditional teaching responsibilities for new GTAs usually include grading or leading weekly recitations for large lecture courses that provide limited pedagogical learning opportunities for the GTA. Educators know that large lecture courses with recitations lack continuity and are less effective than small individual sections that provide more one-on-one interaction. Through an innovative mentorship program at the University of Tennessee, I participated in a successful year-long alternative to traditional course delivery using Malissa Peery’s flipped College Algebra and Basic Calculus courses. I interacted with students and gained confidence as I learned to competently manage a classroom. As one of the first GTAs in the mentorship program, I was in a position to help Malissa refine the overall experience for future students and GTAs. I was also asked to pilot a version of the course in my second year. I hope my perspective allows other universities to see the value of such a program and consider providing a similar training experience for their new GTAs. (Received September 20, 2016)