Creating a Formula for Preparing Better Physics Teachers in Georgia

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Executive Summary
Like many states in this country, Georgia continues to experience a shortage of qualified physics teachers. One response to this has been the creation of broadfield certification which allows individuals with an undergraduate degree in one science discipline to teach courses in other disciplines after successful completion of the broadfield exam. The secondary science education program at Georgia State University has historically promoted broadfield certification in its MAT program through the requirement of a number of content courses outside of the candidate’s major field. Since the majority of candidate’s entering this program have an undergraduate degree in a discipline other than physics, they require graduate-level physics content courses as part of their program. This grant has the goal of developing a two-course sequence which will not only meet this need in a realistic fashion, but will prepare future science teachers equipped to teach physics in a manner aligned with suggestions made in the national standards documents (AAAS, 1993; NRC, 1996) as well as by the PhysTEC coalition.