Virginia State University is partnering with the Algebra Project to implement three components of the T-STEM project: faculty development, summer bridge program, and course structure reform. The Algebra Project, an educational/civil rights organization founded by Dr. Robert Moses, has demonstrated its ability to develop mathematical pedagogy that has been extremely effective in teaching mathematical principles and reasoning to formerly low-performing African American students. The efficacy of the Algebra Project pedagogy has been demonstrated in numerous settings.

The Algebra Project held a training program for thirteen VSU mathematics faculty on June 13-16, 2006 in the Academy for Faculty Development. The training was on the innovative Algebra Project pedagogy. Faculty members who completed this training taught the College Algebra and Calculus courses as part of the T-STEM summer bridge programs for incoming freshman STEM majors, and for rising high school seniors in the enrichment program. Some of the participants in the training will also be working with the Algebra Project in 2007 to develop a college level mathematics curriculum using the Algebra Project pedagogy.

An additional education research grant has been submitted to NSF, which includes teaching special sections of freshman math courses in the Fall ’07 semester, which will include the Algebra Project pedagogy. Comparisons of student performance in these and regular sections of freshman-level math courses will allow both immediate and longitudinal assessment of effects. This project will also include math enrichment activities and summer bridge programs for students in the Petersburg School District.

The ultimate impact of this program will be to increase the numbers of minority students seeking careers in a VSU STEM major, and increasing retention of VSU STEM majors by strengthening the conceptual foundation of math for these students.

Faculty from the Department of Mathematics who participated in the Algebra Project training during the Summer ’06 are listed below:

Azzala Owens  
Bourama Toni  
Cheryl Adeyemi  
Diana Perdue  
Frances Lane  
George Wimbush  
Gerald Burton  
Kenneth Bernard  
Krishan Agrawal  
Mohammad Tabanjeh  
Sagar Bakhshi
In addition, three mathematics coordinators from the Petersburg School District also participated:

Betty Knight
Diane Moore
Gwendolyn Price