A Master of Arts Program for High School and Middle School Teachers.

Kern County, at the southern end of California’s Central Valley, historically has had one of the lowest rates of fully credentialed Mathematics Teachers in the state. The region’s teachers needs for Professional Development have chronically gone largely unmet. Four years ago, in order to address both of these problems of under-prepared and under-served teachers, established a Master of Arts degree for Middle and High School teachers of Mathematics. Designing and implementing an intellectually rigorous program that meets the needs, fits the schedules, and accommodates the varied backgrounds of our students has been both challenging and rewarding. In creating the program, we have had to imagine new courses like Discrete Mathematical Modeling and Geometric Linear Algebra. Likewise, we have had to embrace an extensive use of technology, basing the entry-level courses on CAS calculators. Perhaps the most difficult obstacle to overcome has been to find appropriate culminating projects. With a dozen graduates of the program, we are confident in our process. We propose to describe the program and share lessons learned. (Received September 08, 2005)