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Michael Mays* (mays@math.wvu.edu), Institute for Math Learning, WVU Department of Mathematics, Morgantown, WV 26506-6310. *The ACCLAIM Capstone Mathematics Course.*

One of the primary goals of the NSF-CLT project ACCLAIM (The Appalachian Collaborative Center for Learning, Assessment, and Instruction in Mathematics) has been to build mathematics capacity and expertise in rural areas through advanced degree programs in mathematics. The cooperative doctoral degree program in mathematics education has been made available to three cohorts of students, with a mix of coursework in mathematics and mathematics education offered in summer residential programs and via distance education, leading to a doctoral dissertation at one of five cooperating universities. The course "Elementary Mathematics from an Advanced Standpoint" was designed as a capstone course to build on previous courses in Advanced Calculus, Geometry, Linear Algebra, Discrete Mathematics, Advanced Algebra, and History of Math. For the third cohort it was offered in the first summer of residency, as a "springboard."

We discuss the course in the context of ACCLAIM's outreach mission, and demonstrate some of the course activities developed to coordinate with the text, *Mathematics for High School Teachers, An Advanced Perspective*, by Usiskin et.al. (Received January 03, 2010)