MAED 3495: Advanced Perspectives on School Mathematics I

3 Credit Hours

Prerequisite: MAED 3295 and (MATH 2390 or MAED 2390)

Students' understanding of the mathematics taught in middle school and the first few years of high school will be deepened and broadened through the study of key topics including algebra, linear functions, exponential functions, quadratic functions, number theory, discrete mathematics, and mathematical modeling. This course is designed so that students can revisit key ideas in school mathematics, bringing with them the skills and understandings of college course work in mathematics, deepening and broadening their understanding, and connecting more advanced ideas to the topics they will teach in middle school and high school.

MAED 3713: Data Science for Secondary Mathematics Teachers

3 Credit Hours

Prerequisite: STAT 2332

The course focuses on applying data science and the statistical problem-solving process to real-world modern data investigations (or studies) in various fields such as education, science, business, and the social sciences. Various pedagogical approaches for teaching and technology integration are presented for developing praxis in statistics and data science for secondary grade learners. Students learn and apply the course content during a semester-long, community-based project.

MAED 4000: Service Learning in Mathematics Education

1-3 Credit Hours

Prerequisite: 60 hours and permission of the instructor and department chair/program director.

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.