

MATH 4491: Advanced Topics in Mathematics

3 Credit Hours

Prerequisite: Permission of Department Chair

This course is offered occasionally on topics proposed by the instructor. Students will be able to apply for admission to the course and the department chair will evaluate the application based on the sufficient measures and criteria for admission that have been determined by the instructor.

MATH 4596: Topology

3 Credit Hours

Prerequisite: MATH 2390

This course is an introduction to the study of topology. Topics include topological spaces, subspaces, basis, continuity, separation and countability axioms, connectedness, and compactness.

MATH 4699: Undergraduate Research

3 Credit Hours

Prerequisite: Approval of the instructor.

The student conducts original research in mathematics under the supervision of a faculty member. This research is the result of sustained effort on a problem in mathematics, either theoretical or applied. Making an original contribution to the field of mathematics is the focus of the course rather than a survey of existing work. Results are disseminated by on campus presentations, conference presentations and/or peer-reviewed journal publications.

MAED 1190: Calculus for Middle Grades Teachers

3 Credit Hours

Prerequisite: The successful completion of two 1000 or 2000 level MATH or STAT courses.

This course is a study of real numbers, functions, and calculus with the dual objectives of developing understanding of these topics and the pedagogy of teaching mathematics in contemporary middle schools. Concepts and definitions, proofs, precision and rigor of language, accurate representations and connections within/between mathematics and other subjects as applied to pedagogy and teaching in the middle school will be emphasized. This course does not count as credit for Secondary Education or Mathematics Majors.