Course & Capstone Requirements:

(30 credits): 
Requirements (18 credits):
MATH 515 Abstract Algebra I
MATH 516 Abstract Algebra II
MATH 519 Principles of Real Analysis I
MATH 520 Principles of Real Analysis II
MATH 523 General Topology
MATH 526 Complex Variables

Electives: as approved by faculty advisor (12 credits). These may include 3 credits for the thesis for a student electing Plan A. No more than 9 credits may be earned from 400-level courses.

Capstone Experience:
Plan A: Thesis (MATH 599, 3 credits).
  Students electing this option must also pass one qualifying examination* in an area not related to the thesis topic.
Plan B: Comprehensive Exam. Students selecting this option must pass two of three qualifying examinations* (in the areas of algebra, analysis, or topology) and also give oral presentations on a topic approved by their advisor.

* Students must apply for qualifying examinations after completing appropriate coursework with the approval of their advisors. Applications are available in the School of Graduate Studies or on the web at www.ccsu.edu/grad under Graduate Forms (Degree Candidacy/Non Capstone Qualifying Form).

Note: Applicants to the program are expected to have completed the equivalent of MATH 152, 221, 222, 228, 366, and 377 in addition to any necessary prerequisites for courses required in the planned program of graduate study.

Program Rationale:
The Master of Arts in Mathematics—General provides an abstract introduction to mathematics at an advanced level. This program is suitable for students wishing to improve their mathematics backgrounds before applying to doctoral programs, for candidates interested in teaching at the community-college level, and for high school teachers looking both to broaden and deepen their understanding so as to advance their teaching.

Program Learning Outcomes:
Students in this program will be expected to:

• deeply understand analytic arguments, using such common notions as epsilon/delta, infinite sums, and limits, as well as considerations for more general spaces than the real numbers, such as spaces of functions;
• develop a basic understanding of measure theory and use it to study the Lebesgue integral;
• deeply understand basic algebraic and discrete notions, such as facts about vector spaces and counting arguments, and expand this to include ideas about rings and fields;
• develop a basic understanding of Galois theory;
• follow and create analytic proofs involving abstract metric spaces;
• follow and create algebraic proofs, with an understanding of groups, rings, and fields; and
• independently investigate advanced topics in mathematics and present results to others in a clear way.

Admission Requirements:
Applicants must hold a bachelor’s degree from a regionally accredited institution of higher education. Applicants must also have a minimum undergraduate GPA of 2.70 on a 4.00 point scale (where A is 4.00), or its equivalent, and good standing (3.00 GPA) in all post-baccalaureate course work.

The Department of Mathematical Sciences may, at its discretion, admit an applicant with a GPA between 2.40 and 2.70 on an unconditional basis provided that the prospective student has both sufficient undergraduate course work and standardized test scores that meet any of the following standards:

• GRE (math subject area): 600 (45th percentile)
• GRE (general test quantitative reasoning): 720 (80th percentile)
• GMAT (quantitative): 50 (95th percentile)

Contact: 860-832-2835
www.ccsu.edu/grad