COMPUTATIONAL MATHEMATICS, PH.D.

This program is being discontinued pending SACSCOC approval and is not accepting applications for admission. The University is still authorized to offer the program and issue the associated credential for students who are currently enrolled in the program.

In 2008, UNCG became the only university in the North Carolina system to offer a Ph.D. in Computational Mathematics. Following the advent of the computer, computational mathematics has emerged as an exciting, rapidly growing area of mathematics. Research in computational mathematics brings together computing power and theoretical mathematics. This challenging and rigorous program culminates in the defense of an original dissertation that is suitable for publication in a refereed journal. Upon completion of this degree, the successful student will be capable of producing new results in their chosen area of research.

For information regarding deadlines and requirements for admission, please see https://grs.uncg.edu/programs/.

In addition to the application materials required by the Graduate School, applicants must submit a 500-700 word personal statement to be considered for admission.

M.A. Doctoral Track

The M.A. Doctoral Track offers exceptionally well-qualified applicants the opportunity to gain admission to the master's and doctoral programs simultaneously. This program is designed for students who would like to obtain their M.A. and then proceed directly to the Ph.D. program. Students accepted into the M.A Doctoral Track must fulfill all requirements for the M.A. and the Ph.D. and will earn both degrees. Students not accepted into the M.A. Doctoral Track may still be accepted into the M.A. only program.

Degree Program Requirements

Required: 48-54 credit hours

Students who enter with an M.A. in Mathematics are required to earn a minimum of 48 credit hours, pass the preliminary examination, obtain approval of a dissertation topic, and successfully defend their dissertation. Students entering with other advanced degrees will have their transcripts individually evaluated by the Graduate Program Director to establish the minimum course work required.

Code	Title	Credit Hours
Course Work (27-30 credits)		
Select 27-30 credits from advanced courses in mathematics, statistics, and related areas *		27-30
Computing Work (6, 3, or 0 credits)		
Select two or one or no courses (6, 3, or 0 credits) from the following: **		6, 3, or 0
MAT 627	Numerical Methods	
MAT 630	Computational Discrete Mathematics	
STA 642	Statistical Computing	
Dissertation (18-21 credits)		
MAT 799	Dissertation	18-21
Total Credit Hours		**48-54**

* *Courses at the 600 and the 700 level. The selection of course work must be approved by the Graduate Program Director.*

** *Students will be required to complete up to two courses (6 credits) if they have not completed sufficient previous course work in computing. If a student has completed sufficient previous course work, the requirement may be one course (3 credits) or none (0 credits), as determined by the Graduate Program Director.*

Required Milestones*

- Residency (Immersion)
- Research Competency
- Plan of Study
- Comprehensive Exam (Written & Oral)
- Dissertation Proposal
- Admission to Candidacy
- Dissertation Defense
- Filing the Final Approved Dissertation

* *General information about milestones for doctoral programs is available in* Section III (https://catalog.uncg.edu/academic-regulations-policies/graduate-policies/#sectioniiisummaryofgraduateschoolregulationsforallcertificatesanddegreestext) *of the* Graduate Policies (https://catalog.uncg.edu/academic-regulations-policies/graduate-policies/) *page in the University Catalog. For information about how milestones are accomplished for a specific program, please refer to the doctoral program's handbook.*