APPLIED MATHEMATICS & STATISTICS, AND SCIENTIFIC COMPUTATION, MASTER OF SCIENCE (M.S.)

Students must complete 30 credits of coursework in one of the three areas of concentration. All three concentrations offer both thesis and non-thesis options.

Students choose from one of the following concentrations:

APPLIED MATHEMATICS

Course	Title	Credits
Thesis Option - 30 credits		
Courses with primarily math content		12
Six credits in 600-800 level courses		
Numerical Analysis course (course options below; other courses must be approved by advisor)		
AMSC660	Scientific Computing I	
AMSC661	Scientific Computing II	
AMSC662	Computer Organization and Programming for Scientific Computing	
AMSC663	Advanced Scientific Computing I	
AMSC664	Advanced Scientific Computing II	
AMSC666	Numerical Analysis I	
AMSC714	Numerical Methods For Stationary PDEs	
AMSC715	Numerical Methods for Evolution Partial Differential Equations	
AMSC763	Advanced Linear Numerical Analysis	
AMSC764	Advanced Numerical Optimization	
AMSC799	Master's Thesis Research	6
Application Area courses (chosen with advisor)		6
Applied Math or appropriate seminar (chosen with advsior)		1
Additional coursework chosen with advisor		5
Non-thesis Option - 30 credits		
Courses with primarily math content		15
Nine credits in 600-800 level courses		
Numerical Analysis course (course options below; other courses must be approved by advisor)		
AMSC660	Scientific Computing I	
AMSC661	Scientific Computing II	
AMSC662	Computer Organization and Programming for Scientific Computing	
AMSC663	Advanced Scientific Computing I	
AMSC664	Advanced Scientific Computing II	
AMSC666	Numerical Analysis I	
AMSC714	Numerical Methods For Stationary PDEs	
AMSC715	Numerical Methods for Evolution Partial Differential Equations	
AMSC763	Advanced Linear Numerical Analysis	
AMSC764	Advanced Numerical Optimization	
Application Area courses (chosen with advisor)		6
Applied Math or appropriate seminar (chosen with advsior)		1
Additional coursework chosen with advisor		8
Pass the Qualifying Exam requirement		
Submit a Scholarly Paper		

Applied Statistics

Thesis option requires 25 credits of coursework including 18 credits of statistics core courses, six credits in an application area, and one credit of seminar. Students are also required to complete six credits of AMSC799.

Non-thesis option requires 33 credits of coursework including 18 credits of statistics core courses, six credits in an application area, six credits of electives, two credits of seminar, and one credit of AMSC762. Students are also required to pass three qualifying exams, and submit a scholarly paper.

Scientific Computation

Thesis option requires 24 credits of coursework including nine credits of scientific computing core courses, six credits of core science courses, and three credits of scientific computing application courses, and 6 credits of electives. Students must also complete six credits of AMSC799.

Non-thesis option requires 30 credits of coursework including 15 credits of scientific computing core courses, six credits of core science courses, three credits of scientific computing application courses, and six credits of electives. Students must also submit a scholarly paper.