PURE MATHEMATICS

Pure Mathematics

In addition to the General Degree Requirements as published in this Catalog, students pursuing the Master of Science Degree in Mathematics with concentrations in Pure Mathematics or Applied Mathematics must complete a minimum of thirty (30) graduate credits. For the thesis option, students are required to complete at least twenty-four (24) graduate mathematics credits and six (6) thesis related credits.

For the non-thesis Pure Mathematics concentration track, at least 24 credits of the 30 credits must be in mathematics. Up to 6 credits of areas of special theoretical concentration courses are determined jointly by the interest of the graduate student, the graduate mathematics advisor and members of other departments who are formally designated as graduate faculty.

In either pure or applied concentration tracks, students must maintain a minimum cumulative grade point average of 3.0 to continue in the program.

Student Learning Outcomes

Students pursuing the Master of Science Degree in Mathematics will be able to:
1. Construct proofs of major advanced theoretical results in mathematics.
2. Use abstract mathematical reasoning and modeling to solve disciplinary and interdisciplinary problems.
3. Apply mathematical theories and concepts to conduct scholarly research in interdisciplinary areas.
4. Present mathematical research results and findings in written and oral forms for mathematical, scientific, and general audiences.

Pure Mathematics Concentration

Code	Title	Hours
Graduate Courses: Pure Mathematics Concentration		
CMAT 521	Real Analysis I	3
CMAT 522	Real Analysis II	3
CMAT 523	Complex Variables I	3
CMAT 524	Complex Variables II	3
CMAT 525	Algebra I	3
CMAT 526	Algebra II	3
CMAT 527	Topology I	3
CMAT XXX	Graduate Mathematics Elective	3
CMAT 675	Thesis Seminar I (or CMATT XXX Graduate Elective)	3
CMAT 676	Thesis Seminar II (or CMATT XXX Graduate Elective)	3
Total Hours		**30**

Mathematics, M.S., with Pure Mathematics Concentration

Course	Title	Hours
First Year		
First Semester		
CMAT 521	Real Analysis I	3
CMAT 523	Complex Variables I	3
CMAT 527	Topology I	3
	Hours	**9**
Second Semester		
CMAT 522	Real Analysis II	3
CMAT 524	Complex Variables II	3
CMAT 528	Topology II	3
	Hours	**9**
Second Year		
First Semester		
CMAT 525	Algebra I	3
CMAT 675	Thesis Seminar I (or CMAT XXX Graduate Elective)	3
	Hours	**6**
Second Semester		
CMAT 526	Algebra II	3
CMAT 676	Thesis Seminar II (or CMAT XXX Graduate Elective)	3
	Hours	**6**
	Total Hours	**30**