MATHEMATICS B.S./M.S.

Admission Requirements

Complete the following admission requirements:

- Current admission into a baccalaureate degree program
- At least a 3.0 cumulative GPA
- Completion of 24 credits in the undergraduate major program requirements
- Junior standing

Program Requirements

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Minimum Requirements for Mathematics B.S./M.S.: 138 credits

Students must earn a C- grade or better in each course.

Code	Title	Credits
General University Requirements		
Complete the general university requirements. (https://catalog.uaf.edu/bachelors/#gurbachelorsdegreestext)		
General Education Requirements		
Complete the general education requirements. (https://catalog.uaf.edu/bachelors/#generaleducationrequirementstext)		36-40
As part of the general education requirements, complete the following:		
MATH F252X	Calculus II	
B.S. Degree Requirements		
Complete the B.S. degree requirements. (https://catalog.uaf.edu/bachelors/#bachelorofsciencetext)		16
As part of the B.S. requirements, complete the following:		
MATH F253X	Calculus III	
PHYS F123X and PHYS F124X	College Physics I and College Physics II	
or PHYS F211X and PHYS F212X	General Physics I and General Physics II	
Undergraduate Mathematics Program Requirements		
Complete the following:		
MATH F265	Introduction to Mathematical Proofs	3
MATH F314	Linear Algebra	3
MATH F401	Introduction to Real Analysis	3
MATH F405	Abstract Algebra	3
MATH F410	Introduction to Complex Analysis	3
MATH F490	Senior Seminar [1]	3
Upper-division mathematics electives [2]		9
Upper-division mathematics or statistics electives [3]		6
Electives		
General Electives		21
General University Requirements		
Complete the graduate general university requirements. (https://catalog.uaf.edu/masters/#gurmastersdegreestext)		
Master's Degree Requirements		
Complete the master's degree requirements. (https://catalog.uaf.edu/masters/#typesofmastersdegrees)		
As part of the master's degree requirements, complete the following:		
MATH F698 or MATH F699	Non-thesis Research/Project Thesis	6
Complete a written comprehensive exam		
Graduate Mathematics Program Requirements		
Complete the following:		
MATH F404	Introduction to Topology	3
MATH F631	Algebra I	4
MATH F641	Real Analysis	4
MATH F645	Complex Analysis	4
MATH F651	Topology	4
Graduate Mathematics Electives [4]		6
MATH F692	Seminar	1
Total Credits		**138-142**

[1] Fulfills the baccalaureate capstone requirement.

[2] Acceptable electives include any 3- or 4-credit mathematics course at the F300 level or above.

[3] Acceptable elective courses include any mathematics or statistics course at the F300 level or above and CS F201. In some cases, courses with strong mathematical content from other disciplines may be used as electives. Such an elective must be approved by an advisor in the Department of Mathematics and Statistics.

[4] Acceptable elective courses include any mathematics course at the F600 level or above. In some cases, courses with strong mathematical content from other disciplines may be used as electives. Such an elective must be approved by an advisor in the Department of Mathematics and Statistics.

Note: All mathematics majors must have an advisor from the Department of Mathematics and Statistics.

Note: At least 12 approved mathematics credits at the F300 level or above must be taken while in residence on the Fairbanks campus.

Road Maps

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Road Maps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Some courses and milestones must be completed in the semester listed to ensure timely graduation. Transfer credit may change the road map.

This road map should be used in conjunction with regular academic advising appointments. All students are encouraged to meet with their advisor or mentor each semester. Requirements, course availability and sequencing are subject to change.

COMBINED MATHEMATICS B.S./M.S. - ODD YEAR START

Course	Title	Credits
First Year		
Fall		
LS F101X	Library Information and Research	1
MATH F252X	Calculus II	4
GER (Art)		3
GER (Lab Science I)		3
GER (WRTG)		3
	Credits	**14**
Spring		
MATH F253X	Calculus III	4
MATH F265	Introduction to Mathematical Proofs	3
GER (Social Science I)		3
GER (WRTG)		3
Elective		3
	Credits	**16**
Second Year		
Fall		
MATH F314	Linear Algebra	3
PHYS F211X	General Physics I	4
Math Elective		3
GER (Humanities)		3
Elective		3
	Credits	**16**
Spring		
PHYS F212X	General Physics II	4
Math Elective		3
Math Elective		3
GER (COM)		3
Elective		1
	Credits	**14**
Third Year		
Fall		
MATH F401	Introduction to Real Analysis	3
Math Elective (F400 level)		3
GER (Social Science I)		3
ANT Course		3
Elective		3
	Credits	**15**
Spring		
MATH F405	Abstract Algebra	3
Math Elective		3
GER (Art/Social Science/Humanities)		3
Ethics Course		3
Elective		3
	Credits	**15**
Fourth Year		
Fall		
Math Elective (F400 level)		3
Math Core (F600 level)		3
Math Elective		3
Elective		3
Elective		3
	Credits	**15**
Spring		
MATH F490	Senior Seminar	3
Math Core (F600 level)		3
Math Elective		3
GER (Lab Science I)		4
Elective		3
	Credits	**16**
Fifth Year		
Fall		
MATH F698	Non-thesis Research/Project	3
Math Core (F600 level)		3
Math Elective (F600 level)		3
	Credits	**9**
Spring		
MATH F692	Seminar	1
MATH F698	Non-thesis Research/Project	3
Math Core (F600 level)		3
Math Elective (F600 level)		3
	Credits	**10**
	Total Credits	**140**

COMBINED MATHEMATICS B.S./M.S. - EVEN YEAR START

Course	Title	Credits
First Year		
Fall		
LS F101X	Library Information and Research	1
MATH F252X	Calculus II	4
GER (Art)		3
GER (Lab Science I)		3
GER (WRTG)		3
	Credits	**14**
Spring		
MATH F253X	Calculus III	4
MATH F265	Introduction to Mathematical Proofs	3
GER (Social Science I)		3
GER (WRTG)		3
Elective		3
	Credits	**16**
Second Year		
Fall		
MATH F314	Linear Algebra	3
PHYS F211X	General Physics I	4
Math Elective		3
GER (Humanities)		3
Elective		3
	Credits	**16**
Spring		
PHYS F212X	General Physics II	4

Math Elective		3
Math Elective		3
GER (COM)		3
Elective		1
	Credits	**14**
Third Year		
Fall		
MATH F401	Introduction to Real Analysis	3
Math Elective (F400 level)		3
GER (Lab Science II)		4
GER (Social Science I)		3
ANT Course		3
	Credits	**16**
Spring		
MATH F405	Abstract Algebra	3
Math Elective		3
GER (Art/Social Science/Humanities)		3
Ethics Course		3
Elective		3
	Credits	**15**
Fourth Year		
Fall		
Math Elective (F400 level)		3
Math Core (F600 level)		3
Math Elective		3
Elective		3
Elective		3
	Credits	**15**
Spring		
MATH F490	Senior Seminar	3
Math Core (F600 level)		3
Math Elective		3
Elective		3
Elective		3
	Credits	**15**
Fifth Year		
Fall		
MATH F698	Non-thesis Research/Project	3
Math Core (F600 level)		3
Math Elective (F600 level)		3
	Credits	**9**
Spring		
MATH F692	Seminar	1
MATH F698	Non-thesis Research/Project	3
Math Core (F600 level)		3
Math Elective (F600 level)		3
	Credits	**10**
	Total Credits	**140**