BS MATHEMATICS-PURE MATHEMATICS CONCENTRATION

Degree Requirements

Students should refer to their DegreeWorks degree audit in their Web for Students account for more information regarding their degree requirements.

Code	Title	Hours
Major Requirements		
General Education Requirements (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		42
Mathematics Core Courses:		
MATH 2413	Calculus I [1,2]	4
MATH 2414	Calculus II	4
MATH 2415	Calculus III	4
MATH 2305	Discrete Mathematics	3
MATH 2318	Linear Algebra	3
MATH 2320	Differential Equations	3
MATH 357	Probability and Statistics using R	3
MATH 415	Applied Numerical Analysis	3
MATH 430	Mathematical Modeling	3
MATH 450	Combinatorics and Graph Theory	3
MATH 493	Capstone in Mathematics (EL)	3
Pure Math Concentration:		
MATH 321	College Geometry	3
MATH 330	Math Foundations and Applications	3
MATH 334	Introduction to Abstract Algebra	3
MATH 380	Real Analysis	3
MATH 437	Number Theory	3
Electives (as needed to meet minimum degree requirements including 54 semester credits of upper division)		
Upper Division Electives (300-400 level)		24
Minimum Hours for Degree		**120**

Note: A minimum of 54 upper division hours (300 and 400 level courses) are required for this degree. Resident credit totaling 25% of the hours is required for the degree. A minimum GPA of 2.0 is required in three areas for graduation: Overall GPA, Institutional GPA, and Major GPA.

Mathematics -Pure Mathematics Concentration-Four Year Plan

Students should refer to their DegreeWorks degree audit in their Web for Students account for more information regarding their degree requirements.

First Year

Code	Title	Hours
Fall		
PSCI 2305	U.S. Government and Politics	3
ENGL 1301	Composition I [minimum grade of 'C' required]	3
MATH 2413	Calculus I	4
Life and Physical Sciences Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
IS 1100	University Foundations [mandatory for FTIC students]	1
Fall total semester credit hours		**14**
Spring		
PSCI 2306	State and Local Government	3
ENGL 1302	Composition II	3
MATH 2305	Discrete Mathematics	3
MATH 2414	Calculus II	4
Life and Physical Sciences Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3

Spring total semester credit hours		**16**
First Year Total Semester Credit Hours		**30**

Second Year

Code	Title	Hours
Fall		
MATH 2415	Calculus III	4
MATH 2318	Linear Algebra	3
HIST 1301	United States History I	3
Creative Arts Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
Language, Philosophy and Culture Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
Fall total semester credit hours		**16**
Spring		
MATH 2320	Differential Equations	3
MATH 330	Math Foundations and Applications	3
HIST 1302	United States History II	3
SPCH 1315	Public Speaking	3
or COMM 1307	Introduction to Mass Communication	
or COMM 1311	Introduction to Communication Studies	
Elective - Upper or Lower Division as needed to meet upper division and overall requirement		2-3
Spring total semester credit hours		**14-15**
Second year Total Semester Credit Hours		**30-31**

Third Year

Code	Title	Hours
Fall		
MATH 321	College Geometry	3
MATH 450	Combinatorics and Graph Theory	3
Social and Behavioral Science Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
Upper Division Elective (300-400 level)		3
Component Area Option B of the Core Curriculum (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
Fall total semester credit hours		**15**
Spring		
MATH 334	Introduction to Abstract Algebra	3
MATH 357	Probability and Statistics using R	3
Upper Division Elective (300-400 level)		3
Upper Division Elective (300-400 level)		3
Upper Division Elective (300-400 level)		3
Spring total semester credit hours		**15**
Third Year Total Semester Credit Hours		**30**

Fourth Year

Code	Title	Hours
Fall		
MATH 380	Real Analysis	3
MATH 430	Mathematical Modeling	3
MATH 437	Number Theory	3
Upper Division Elective (300-400 level)		3
Upper Division Elective (300-400 level)		3
Fall total semester credit hours		**15**
Spring		

MATH 415	Applied Numerical Analysis	3
MATH 493	Capstone in Mathematics (EL)	3
Upper Division Elective (300-400 level)		3
Upper Division Elective (300-400 level)		3
Elective - Upper or Lower Division as needed to meet upper division and overall requirement		3
Spring total semester credit hours		**15**
Fourth Year Total Semester Credit Hours		**120**

Note: A minimum of 54 upper division hours (300 and 400 level courses) are required for this degree. Resident credit totaling 25% of the hours is required for the degree. A minimum GPA of 2.0 is required in three areas for graduation: Overall GPA, Institutional GPA, and Major GPA.