

# BACHELOR OF ARTS WITH A MAJOR IN MATHEMATICS (BA)

## Degree Requirements Hours Required

A minimum of 120 semester credit hours (SCH): 45 hours must be advanced, and fulfillment of degree requirements as specified in the "Requirements for Graduation (<https://catalog.tamui.edu/undergraduate-information/academic-regulations/>)" section of this catalog.

## Requirements

Code	Title	Semester Credit Hours
[University Core Curriculum] ( <a href="https://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/">https://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/</a> )		
Select 42 SCH as outlined in the suggested plans and as specified in the "Requirements for Graduation"		42
<b>Life &amp; Physical Science Lab</b>		
Select 1 SCH compatible with a Life & Physical Science course		1
<b>Foreign Language</b>		
Select 6 SCH in foreign language coursework (not credit by exam). Students may take 6 SCH in Spanish at the level determined by the Spanish Placement Exam or by satisfying required pre-requisites. Students may take 6 SCH of another foreign language at the introductory level or above. This requirement may also be met by earning 6 SCH in any subject while participating in a TAMIU-approved Study Abroad program while living for at least 4 weeks in another country.		6
<b>Computer Science</b>		
CSCE 1136	Funds of Programming Lab	1
CSCE 1336	Fundamentals of Programming	3
<b>Major</b>		
Select 1 SCH excess in the core		1
MATH 2414	Calculus II	4
MATH 2415	Calculus III	4
MATH 3310	Introduction to Linear Algebra	3
MATH 3330	Ordinary Diff Equations	3
MATH 3360	Statistical Analysis	3
MATH 3365	Discrete Mathematics	3
MATH 3371	Communications in Mathematics	3
MATH 4310	Abstract Algebra I	3
MATH 4335	Advanced Calculus	3
MATH 4345	Complex Variables	3
<b>Minor</b>		
Select a minimum of 18 SCH from one discipline at least twelve of which must be at the 3000-4000 level. See Appendix C. Instead of a minor, students may complete 18 SCH of electives, 12 SCH of which must be at the 3000-4000 level, from any discipline, except the major field, outside the College of Nursing and Health Sciences		18
<b>Electives</b>		

Select 12 SCH, at the 3000-4000 level, selected from arts, economics, humanities, natural sciences and social sciences. Courses must be outside the major and minor unless seeking a double major

General Electives	
Select 4 SCH	4
<b>Total Semester Credit Hours</b>	<b>120</b>

\* BA/MA OPTION: See Combined BA/MA Programs in this section

## Four-Year Degree Plan

Following is a suggested four-year degree plan. Students are encouraged to see their advisor each semester for help with program decisions and enrollment; responsible for reviewing the **Program of Study Requirements**, meeting all course prerequisites, and **writing intensive course (WIN)** requirements for graduation. See Academic Regulations-Undergraduate online. (<https://catalog.tamui.edu/undergraduate-information/academic-regulations/>)

Freshman		Semester Credit Hours
<b>Fall</b>		
ENGL 1301	English Composition I	3
HIST 1301	The US to 1877	3
MATH 2413	Calculus I	4
UNIV 1201	Learn a Global Context I	2
Life & Physical Science		3
Life & Physical Science Lab		1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1302	English Composition II	3
HIST 1302	The US Since 1877	3
MATH 2414	Calculus II	4
CSCE 1336	Fundamentals of Programming	3
CSCE 1136	Funds of Programming Lab	1
UNIV 1302	Signature Course	3
<b>Semester Credit Hours</b>		<b>17</b>
<b>Sophomore</b>		
<b>Fall</b>		
PSCI 2305	American National Government	3
MATH 2415	Calculus III	4
MATH 3365	Discrete Mathematics	3
Language, Philosophy & Culture		3
Life & Physical Science		3
Life & Physical Science Lab		1
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring</b>		
PSCI 2306	American State Government	3
MATH 3310	Introduction to Linear Algebra	3
MATH 3360	Statistical Analysis	3
Foreign Lang/Study Abroad		3

Creative Arts	3
<b>Semester Credit Hours</b>	<b>15</b>

**Junior**

**Fall**

MATH 3330	Ordinary Diff Equations	3
MATH 3371	Communications in Mathematics	3
MATH 4335	Advanced Calculus	3
Social/Behavioral Science		3
Foreign Lang/Study Abroad		3
<b>Semester Credit Hours</b>		<b>15</b>

**Spring**

MATH 4310	Abstract Algebra I	3
Advanced Elective		3
Advanced Elective		3
Minor/General Elective		3
Minor/General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>

**Senior**

**Fall**

General Elective		4
Advanced Elective		3
Advanced Minor/General Elective		3
Advanced Minor/General Elective		3
<b>Semester Credit Hours</b>		<b>13</b>

**Spring**

MATH 4345	Complex Variables	3
Advanced Elective		3
Advanced Minor/General Elective		3
Advanced Minor/General Elective		3
<b>Semester Credit Hours</b>		<b>12</b>

**Total Semester Credit Hours** **120**

*Actual degree plans may vary depending on availability of courses in a given semester.*

*Some courses may require prerequisites not listed.*