

# 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" section of this catalog.

### Requirements

Code	Title	Semester Credit Hours
[University Core Curriculum]		
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 course work (not credit by exam) above the university's foreign language graduation requirement. Thus, students who meet the university's foreign language graduation requirement by earning 6 hours of credit by exam, may take 6 SCH in the same language but at the intermediate level or above, or they may take 6 SCH of another foreign language at the introductory level. 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>		
COSC 1136	Funds of Programming Lab	1
COSC 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

Electives	
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	12
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**; responsible for meeting all course prerequisites; and must meet **foreign language** and **writing intensive course** requirements for graduation. See Academic Regulations-Undergraduate online.

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
COSC 1336	Fundamentals of Programming	3
COSC 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>

**Spring**

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
Semester Credit Hours		15

**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
Semester Credit Hours		15

**Spring**

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

**Senior**

**Fall**

General Elective		4
Advanced Elective		3
Advanced Minor/General Elective		3
Advanced Minor/General Elective		3
Semester Credit Hours		13

**Spring**

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

Total Semester Credit Hours		120
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*Actual degree plans may vary depending on availability of courses in a given semester.*

*Some courses may require prerequisites not listed.*