

CATALOG YEAR 2012-2013

COLLEGE/SCHOOL/SECTION: \_\_\_\_\_

**Program:** Delete: \_\_\_ Add: \_\_\_ Change: x Attach new/changed Program of Study description and 4-year plan. If in current online catalog, provide change and attach text with changes in red.

**Justification:** The computer programming courses complement the mathematics courses in the program. These courses should not be counted as hours in the Major. In addition, reducing 6 SCH electives to 3 SCH in Major (Now is 33 SCH). Also, the 6 SCH Foreign Language/Study Abroad as a sequence courses are listed in the degree plan.

**New**

**Degree Requirements for the BA with a Major in Mathematics**

1. **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.
2. **University Core Curriculum:** **42** SCH as outlined in the suggested plans and as specified in the "[Requirements for Graduation](#)". MATH [2371](#) must be taken as part of the core.
3. **Foreign Language/Study Abroad:** **6** SCH in course work (not credit by exam) above the university's foreign language admission requirement. Thus students who meet the university's foreign language admission 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 3 months in a non-English speaking country.
4. **Major:** **33** SCH including 1 SCH excess in the core, MATH [2414](#), [2415](#), [3310](#), [3330](#), [3360](#), [3365](#), [4310](#), [4335](#), [4345](#) and ~~8~~ 3 SCH from any 4000 level MATH course. should be 3 SCH per 4-year plan.
5. **Computer Science:** **4** SCH in COSC [1136](#) and COSC [1336](#).
6. **Minor (optional electives):** A minimum of **18** SCH from one discipline at least twelve of which must be at the 3000-4000 level. See [Appendix C](#).

7. **Liberal Arts Electives: 12 SCH**, at least 6 of which must be 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.
8. **Electives: 5 SCH**.

## Old

### Degree Requirements for the BA with a Major in Mathematics

1. **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.
2. **University Core Curriculum: 42 SCH** as outlined in the suggested plans and as specified in the "[Requirements for Graduation](#)". MATH [2371](#) must be taken as part of the core.
3. **Foreign Language/Study Abroad: 6 SCH** in course work (not credit by exam) above the university's foreign language admission requirement. Thus students who meet the university's foreign language admission 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 3 months in a non-English speaking country. **Note:** Coursework may be applied to Liberal Arts Electives or Elective requirements below.
4. **Major: 40 SCH** including 1 SCH excess in the core, COSC [1136](#), COSC [1336](#), MATH [2414](#), [2415](#), [3310](#), [3330](#), [3360](#), [3365](#), [4310](#), [4335](#), [4345](#) and 6 SCH from any 4000 level MATH course.
5. **Minor: 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, within the College of Arts and Sciences or the A. R. Sanchez, Jr. School of Business.
6. **Liberal Arts Electives: 12 SCH**, at least 6 of which must be 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. See Note in #4 above.
7. **Electives: 8 SCH**. See Note in #4 above.

## New

## BACHELOR OF ARTS MAJOR IN MATHEMATICS

Following is **one** 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**; and must meet **foreign language** and **writing intensive course** requirements for graduation. See [Academic Regulations-Undergraduate](#).

\*See [Appendix A](#) *Core Curriculum and Optional Course Information*.

\*\* See [Appendix C](#) for approved list of minors and requirements. 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, within the College of Arts and Sciences or the A. R. Sanchez, Jr. School of Business.

FALL	HOURS	SPRING	HOURS
<b>FRESHMAN YEAR</b>		<b>FRESHMAN YEAR</b>	
ENGL 1301	<a href="#">English Composition I</a>	ENGL 1302	<a href="#">English Composition II</a>
	3		3
HIST 1301	<a href="#">The U.S. to 1877</a>	HIST 1302	<a href="#">The U.S. Since 1877</a>
	3		3
MATH 2413	<a href="#">Calculus I</a>	MATH 2414	<a href="#">Calculus II</a>
	4		4
	<a href="#">Natural Science*</a>		<a href="#">Natural Science*</a>
	4		4
	<a href="#">Activity/Wellness*</a>		<a href="#">Visual/Performing Arts**</a>
	1		3
<b>Total</b>	<b>15</b>		<b>17</b>
<b>SOPHOMORE YEAR</b>		<b>SOPHOMORE YEAR</b>	
ENGL	<a href="#">Survey of Literature*</a>	MATH 3330	<a href="#">Differential Equations</a>
	3		3
COSC 1136	<a href="#">Fundamentals of Programming Lab</a>	MATH 3360	<a href="#">Statistical Analysis</a>
	1		3
COSC 1336	<a href="#">Fundamentals of Programming</a>	MATH 3365	<a href="#">Discrete Mathematics</a>
	3		3
MATH 2371	<a href="#">Communications in Math</a>	PSCI 2306	<a href="#">American State Government</a>
	3		3
MATH 2415	<a href="#">Calculus III</a>		<a href="#">Minor/General Elective**</a>
	4		3
PSCI 2305	<a href="#">American National Govt</a>		
	3		
<b>Total</b>	<b>17</b>		<b>15</b>

**JUNIOR YEAR**

MATH 4335	<a href="#">Advanced Calculus</a>	3
MATH 3310	<a href="#">Introduction to Linear Algebra</a>	3
	<a href="#">Soc/Behavioral Science*</a>	3
	<a href="#">Minor/General Elective**</a>	3
	<a href="#">Liberal Arts Elective<sup>1</sup></a>	<u>3</u>
<b>Total</b>		<b>15</b>

**JUNIOR YEAR**

MATH 4310	<a href="#">Abstract Algebra</a>	3
	Elective	3
	<a href="#">Foreign Language/Study Abroad<sup>3</sup></a>	3
	<a href="#">Adv Minor/General Elective**</a>	3
	<a href="#">Liberal Arts Elective<sup>1</sup></a>	<u>3</u>
<b>Total</b>		<b>15</b>

**SENIOR YEAR**

MATH	<a href="#">Advanced Math Elective<sup>2</sup></a>	3
	<a href="#">Foreign Language/Study Abroad<sup>3</sup></a>	3
	<a href="#">Advanced Liberal Arts Elective<sup>1</sup></a>	3
	<a href="#">Adv Minor/General Elective**</a>	3
MATH 3195	<a href="#">Seminar</a> (Free Elective)	<u>1</u>
<b>Total</b>		<b>13</b>

**SENIOR YEAR**

MATH 4345	<a href="#">Complex Variables</a>	3
MATH 3195	<a href="#">Seminar</a> (Free Elective)	1
	<a href="#">Advanced Liberal Arts Elective<sup>1</sup></a>	3
	<a href="#">Adv Minor/General Elective**</a>	3
	<a href="#">Adv Minor/General Elective**</a>	<u>3</u>
<b>Total</b>		<b>13</b>

**TOTAL SEMESTER CREDIT HOURS: 120**

<sup>1</sup>Liberal Arts Electives, select 12 SCH with at least six at the 3000-4000 level from arts, economics, humanities, natural sciences and social sciences. Courses must be outside the major and minor unless seeking a double major.

<sup>2</sup>Advanced Math Electives, select 3 SCH from any 4000 level MATH course.

<sup>3</sup>Foreign Language/Study Abroad, select 6 SCH in course work (not credit by exam) above the university's foreign language admission requirement. Thus students who meet the university's foreign language admission 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 3 months in a non-English speaking country.

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

Some courses may require prerequisites not listed.

Old

## BACHELOR OF ARTS MAJOR IN MATHEMATICS

Following is **one** 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**; and must meet **foreign language** and **writing intensive course** requirements for graduation. See [Academic Regulations-Undergraduate](#).

\*See [Appendix A](#) *Core Curriculum and Optional Course Information*.

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FALL	HOURS	SPRING	HOURS
<b>FRESHMAN YEAR</b>		<b>FRESHMAN YEAR</b>	
ENGL 1301	3	ENGL 1302	3
HIST 1301	3	HIST 1302	3
MATH 2413	4	MATH 2414	4
	4		4
	1		3
<b>Total</b>	<b>15</b>		<b>17</b>
<b>SOPHOMORE YEAR</b>		<b>SOPHOMORE YEAR</b>	
ENGL	3	MATH 3330	3
COSC 1136	1	MATH 3360	3
COSC 1336	3	MATH 3365	3
MATH 2371	3	PSCI 2306	3
MATH 2415	4		3
PSCI 2305	3		3
<b>Total</b>	<b>17</b>		<b>15</b>
<b>JUNIOR YEAR</b>		<b>JUNIOR YEAR</b>	
MATH 4335	3	MATH 4310	3
MATH 3310	3	Elective <sup>3</sup>	3

	<a href="#">Algebra</a>			
	<a href="#">Soc/Behavioral Science</a> *	3	Elective <sup>3</sup>	3
	<a href="#">Minor/General Elective</a> **	3	<a href="#">Adv Minor/General Elective</a> **	3
	<a href="#">Liberal Arts Elective</a> <sup>1,3</sup>	<u>3</u>	<a href="#">Liberal Arts Elective</a> <sup>1,3</sup>	<u>3</u>
<b>Total</b>		<b>15</b>		<b>15</b>

**SENIOR YEAR**

MATH	<a href="#">Advanced Math Elective</a> <sup>2</sup>	3
MATH	<a href="#">Advanced Math Elective</a> <sup>2</sup>	3
	<a href="#">Advanced Liberal Arts Elective</a> <sup>1</sup>	3
	<a href="#">Adv Minor/General Elective</a> **	3
MATH 3195	<a href="#">Seminar</a> (Free Elective)	<u>1</u>
<b>Total</b>		<b>13</b>

**SENIOR YEAR**

MATH 4345	<a href="#">Complex Variables</a>	3
MATH 3195	<a href="#">Seminar</a> (Free Elective)	1
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	<a href="#">Adv Minor/General Elective</a> **	3
	<a href="#">Adv Minor/General Elective</a> **	<u>3</u>
<b>Total</b>		<b>13</b>

**TOTAL SEMESTER CREDIT HOURS: 120**

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Approvals:

Signature

Date

Chair  
Department Curriculum Committee

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Chair  
Department

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Chair  
College Curriculum Committee

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