

# MATHEMATICS - BA, TEACHING EMPHASIS

## Program Requirements

### First Year

Fall		Semester Credit Hours
ENGL 104 or ENGL 103	Composition and Rhetoric or Introduction to Rhetoric and Composition	3
MATH 171	Calculus I	4
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>1</sup>		3
Freshman Science elective <sup>2</sup>		4
General elective <sup>3,4</sup>		1
<b>Semester Credit Hours</b>		<b>15</b>

### Spring

ARSC 201	Self-Directed Experiences with Adolescents	1
MATH 172	Calculus II	4
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>1</sup>		3
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>1</sup>		3
Freshman Science elective <sup>2</sup>		4
General elective <sup>3,4</sup>		1
<b>Semester Credit Hours</b>		<b>16</b>

### Second Year

Fall		Semester Credit Hours
MATH 221	Several Variable Calculus	4
MATH 300	Foundations of Mathematics	3
STAT 211	Principles of Statistics I	3
Select one of the following:		4
CSCE 110	Programming I	
CSCE 111	Introduction to Computer Science Concepts and Programming	
CSCE 206	Structured Programming in C	
General elective <sup>3,4</sup>		2
<b>Semester Credit Hours</b>		<b>16</b>

### Spring

INST 222 or TEFB 273	Foundations of Education in a Multicultural Society or Introduction to Culture, Community, Society and Schools	3
MATH 308	Differential Equations	3
MATH 323	Linear Algebra	3
Select one of the following:		3
COMM 203	Public Speaking	
COMM 205	Communication for Technical Professions	

COMM 243	Argumentation and Debate	
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>1</sup>		3

**Semester Credit Hours 15**

### Third Year

#### Fall

MATH 409	Analysis on the Real Line	3
PHYS 206 & PHYS 226	Newtonian Mechanics for Engineering and Science and Physics of Motion Laboratory for the Sciences	4
TEFB 322	Teaching and Schooling in Modern Society	3
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>1</sup>		3
Math elective <sup>5,6</sup>		3

**Semester Credit Hours 16**

#### Spring

MATH 415 or MATH 433	Modern Algebra I or Applied Algebra	3
MATH 467	Modern Geometry	3
RDNG 372 or RDNG 465	Reading and Writing across the Middle Grades Curriculum or Reading in the Middle and Secondary Grades	3
TEFB 324	Teaching Skills II	3
General elective <sup>4</sup>		3

**Semester Credit Hours 15**

### Fourth Year

#### Fall

INST 210	Understanding Special Populations	3
MATH 403	Mathematics and Technology	3
TEFB 407	Mathematics in the Middle and Senior School	3
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>1</sup>		3
MATH elective <sup>5,6</sup>		3

**Semester Credit Hours 15**

#### Spring

TEED 425	Supervised Clinical Teaching	12
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**Semester Credit Hours 12**

**Total Semester Credit Hours 120**

<sup>1</sup> Of the 18 hours shown as University Core Curriculum (<http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/>), 3 must be from language, philosophy and culture, 3 from creative arts, 6 from American history, 6 from Government/Political Science.

<sup>2</sup> Select 4 hours from ASTR 111, BIOL 111, BIOL 112, CHEM 119, CHEM 120, CHEM 107/CHEM 117, PHYS 207/PHYS 227.

The remaining 4 hours may be selected from ASTR 111, ATMO 201/ATMO 202, BIOL 111, BIOL 112, CHEM 119, CHEM 120, CHEM 107/CHEM 117, GEOL 101/GEOL 102, OCNG 251/OCNG 252, PHYS 207/PHYS 227.

<sup>3</sup> MATH 170 is highly recommended for math majors co-enrolled in MATH 150, MATH 171, or MATH 172. MATH 170 may be taken twice for credit.

<sup>4</sup> Select from any 100-499 course not used elsewhere, (except ALED 125; ASCC 102; ASTR 109/PHYS 109, ASTR 119/PHYS 119; BMEN 153; KINE 199; LAND 101; MATH 102 - 148 (<http://catalog.tamu.edu/undergraduate/course-descriptions/math/>), MATH 151 - 168 (<http://catalog.tamu.edu/undergraduate/course-descriptions/math/>), MATH 304, MATH 309, MATH 311, MATH 365, MATH 366, MATH 367, MATH 375, MATH 376; PBSI 301, PHYS 109/ASTR 109, PHYS 119/ASTR 119, PHYS 201, PHYS 202, PHYS 205; STAT 201, STAT 301, STAT 302, STAT 303).

<sup>5</sup> Three hours of math elective courses are to be from MATH 325, MATH 407-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/math/>). Students who plan to attend graduate school in mathematics are encouraged to take MATH 416 and MATH 446.

<sup>6</sup> Three hours of math elective courses chosen from MATH 325, MATH 407-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/math/>), CSCE 210-470 (<http://catalog.tamu.edu/undergraduate/course-descriptions/csce/>) (except CSCE 222/ECEN 222, CSCE 285, CSCE 289, CSCE 291, CSCE 402); or ISEN 320-430 (<http://catalog.tamu.edu/undergraduate/course-descriptions/isen/>). Students who plan to attend graduate school in mathematics are encouraged to take MATH 416 and MATH 446.

Maximum of 3 hours of MATH 300 or CSCE 222/ECEN 222 may be used in this degree program.

Maximum of 3 hours of MATH 411 or STAT 414 may be used in this degree program.

Maximum of 4 hours of MATH 417, MATH 437, or CSCE 442 may be used in this degree program.

If a grade of D or F is earned in any of the following courses, MATH 151/MATH 171, MATH 152/MATH 172, MATH 221/MATH 251/MATH 253, MATH 300, MATH 323 or MATH 308, this course must be immediately retaken and a grade of C or better earned. The department will allow at most two Ds in upper-level (MATH 325-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/math/>)) courses. If a third D is earned, one of the three courses in which a D was earned must be retaken and a grade of C or better earned.

Graduation requirements include a requirement for 3 hours of International and Cultural Diversity (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) (<https://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) courses and 3 hours of Cultural Discourse (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>) courses. A course satisfying a Core category, a college/department requirement, or a general elective can be used to satisfy this requirement. See academic advisor.

This degree requires that a student be admitted into the AggieTEACH program and complete the Secondary Education (SEED) minor. Courses for the SEED minor have already been incorporated in the planned coursework above.