

# APPLIED MATHEMATICAL SCIENCES - BS, ACTUARIAL EMPHASIS

## Program Requirements

### First Year

	Semester Credit Hours
<b>Fall</b>	
ENGL 104 or ENGL 103	3
MATH 171	4
Select one of the following:	4
CSCE 110	
CSCE 111	
CSCE 121	
CSCE 206	
Freshman Science elective <sup>1</sup>	4
General elective <sup>2,3</sup>	1
<b>Semester Credit Hours</b>	<b>16</b>

### Spring

MATH 172	4
Select one of the following:	4
CSCE 110	
CSCE 111	
CSCE 121	
CSCE 206	
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>4</sup>	3
Freshman Science elective <sup>1</sup>	4
General elective <sup>2,3</sup>	1
<b>Semester Credit Hours</b>	<b>16</b>

### Second Year

	Semester Credit Hours
<b>Fall</b>	
ECON 202 or ECON 203	3
MATH 221	4
MATH 300	3
STAT 211	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>4</sup>	3
<b>Semester Credit Hours</b>	<b>16</b>

### Spring

MATH 308	3
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MATH 323	3
STAT 212	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>4</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>4</sup>	3

Semester Credit Hours 15

### Third Year

	Semester Credit Hours
<b>Fall</b>	
MATH 325	3
MATH 411 or STAT 414	3
MATH 425	3
Select one of the following:	3
COMM 203	
COMM 205	
COMM 243	
General elective <sup>3</sup>	3

Semester Credit Hours 15

### Spring

MATH 417 or MATH 437	4
MATH 419 or OCNG 451	2
Select one of the following:	4
OCNG 451	
PHYS 207 & PHYS 227	
General elective <sup>3</sup>	4

Semester Credit Hours 14

### Fourth Year

	Semester Credit Hours
<b>Fall</b>	
Select 6 hours from the following:	6
CSCE 210-CSCE 470 ( <a href="http://catalog.tamu.edu/undergraduate/course-descriptions/csce/">http://catalog.tamu.edu/undergraduate/course-descriptions/csce/</a> ) <sup>6</sup>	
MATH 407-MATH 499 ( <a href="http://catalog.tamu.edu/undergraduate/course-descriptions/math/">http://catalog.tamu.edu/undergraduate/course-descriptions/math/</a> )	
STAT 335-STAT 482 ( <a href="http://catalog.tamu.edu/undergraduate/course-descriptions/stat/">http://catalog.tamu.edu/undergraduate/course-descriptions/stat/</a> )	
Select 9 hours from the following:	9
ISEN 320 or ISEN 340	
ECON 311-ECON 489 ( <a href="http://catalog.tamu.edu/undergraduate/course-descriptions/econ/">http://catalog.tamu.edu/undergraduate/course-descriptions/econ/</a> )	
ECMT 463	
FINC 309-FINC 489 ( <a href="http://catalog.tamu.edu/undergraduate/course-descriptions/finc/">http://catalog.tamu.edu/undergraduate/course-descriptions/finc/</a> )	
<b>Semester Credit Hours</b>	<b>15</b>

### Spring

MATH 409	3
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PHYS 206 & PHYS 226	Newtonian Mechanics for Engineering and Science and Physics of Motion Laboratory for the Sciences	4	cultural-diversity-requirements/)s and 3 hours of Cultural Discourse ( <a href="http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/">http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/</a> ) 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.
	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>4</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>4</sup>	3	
Semester Credit Hours		13	
Total Semester Credit Hours		120	

<sup>1</sup> Select 4 hours from: ASTR 111, BIOL 111, BIOL 112, CHEM 119, CHEM 120, CHEM 107, CHEM 117. 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.

<sup>2</sup> MATH 170 is highly recommended for math majors co-enrolled in MATH 150, MATH 151, MATH 152, MATH 171 or MATH 172.

<sup>3</sup> Select from any 100-499 course not used elsewhere, (except ALED 125; ASCC 102; ASTR 109/PHYS 109, ASTR 119/PHYS 119; BMEN 101; ISEN 101; KINE 199; LAND 101; MATH 102-148, MATH 151-166 (<http://catalog.tamu.edu/undergraduate/course-descriptions/math/>), MATH 304, MATH 309, MATH 311, MATH 365, MATH 366, MATH 367, MATH 375, MATH 376; PHYS 109/ASTR 109,PHYS 119/ASTR 119, PHYS 201, PHYS 202, PHYS 205; PSYC 301; STAT 201, STAT 301 - 303 (<http://catalog.tamu.edu/undergraduate/course-descriptions/stat/>); WFSC 101).

<sup>4</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>5</sup> MATH 411 should be taken the semester after taking MATH 221.

<sup>6</sup> Except CSCE 222/ECEN 222, CSCE 285, CSCE 289, CSCE 291.

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.

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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 D's in upper-level (325-499) 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.

Students desiring teacher certification should consult the requirements for certification before registering for electives.

Graduation requirements include a requirement for 3 hours of International and Cultural Diversity course (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international->