## UNIVERSITY STUDIES - BS, MATHEMATICS FOR PRE-PROFESSIONALS CONCENTRATION

### Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 221</td>
<td>Several Variable Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 251</td>
<td>Engineering Mathematics III</td>
<td>1</td>
</tr>
<tr>
<td>MATH 253</td>
<td>Engineering Mathematics III</td>
<td>1</td>
</tr>
<tr>
<td>MATH 300</td>
<td>Foundations of Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>MATH 304</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 308</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 409</td>
<td>Advanced Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 415</td>
<td>Modern Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 414</td>
<td>Mathematical Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 103</td>
<td>Introduction to Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>POLS 206</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 207</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following:

- MATH 147 Calculus I for Biological Sciences
- MATH 151 Engineering Mathematics I
- MATH 171 Calculus I

Select one of the following:

- MATH 148 Calculus II for Biological Sciences
- MATH 152 Engineering Mathematics II
- MATH 172 Calculus II

### University and College Requirements

- ENGL 103 Introduction to Rhetoric and Composition
- or ENGL 104 Composition and Rhetoric
- POLS 206 American National Government
- POLS 207 State and Local Government

Select one of the following:

- MATH 147 Calculus I for Biological Sciences
- MATH 151 Engineering Mathematics I
- MATH 171 Calculus I

Select one of the following:

- MATH 148 Calculus II for Biological Sciences
- MATH 152 Engineering Mathematics II
- MATH 172 Calculus II

### Life and physical sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences)

- 9 Semester Credit Hours

### Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences)

- 3 Semester Credit Hours

### Minor 1

- 15-18 Semester Credit Hours

### Minor 2

- 15-18 Semester Credit Hours

### General Electives

- 16-22 Semester Credit Hours

### Total Semester Credit Hours

- 120 Semester Credit Hours

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1. Must make a grade of C or better.
2. MATH 433 will not fulfill this requirement.
3. Completion of four semesters of upper-level ROTC may be substituted for three hours of the history requirement and 3 hours of the government requirement.
4. Select from any 100-499 course not used elsewhere, (except ALED 125; ASCC 102; ASTR 109/PHYS 109, ASTR 119/PHYS 119; BMEN 153; ISEN 101; KINE 199; LAND 101; MATH 102-148, 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; 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).

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.

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/) 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.