UNIVERSITY STUDIES - BS, MATHEMATICS FOR PRE-PROFESSIONALS CONCENTRATION

The Bachelor of Science in University Studies, Mathematics for Pre-Professionals area of concentration consists of courses that are designed to give students who are both interested in pre-professional programs and mathematically inclined a way to combine both interests.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 251</td>
<td>Engineering Mathematics III ¹</td>
<td>3</td>
</tr>
<tr>
<td>MATH 300</td>
<td>Foundations of Mathematics ²</td>
<td>3</td>
</tr>
<tr>
<td>MATH 304</td>
<td>Linear Algebra ¹</td>
<td>3</td>
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<tr>
<td></td>
<td>or MATH 323 or Linear Algebra</td>
<td></td>
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<tr>
<td>MATH 308</td>
<td>Differential Equations ¹</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></td>
<td>or MATH 411 or Mathematical Probability</td>
<td></td>
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<tr>
<td>MATH 407 - MATH 499</td>
<td><a href="http://catalog.tamu.edu/undergraduate/course-descriptions/math">http://catalog.tamu.edu/undergraduate/course-descriptions/math</a></td>
<td>3</td>
</tr>
</tbody>
</table>

University and College Requirements

| ENGL 103 | Introduction to Rhetoric and Composition | 3                     |
|          | or ENGL 10 or Composition and Rhetoric    |                       |
| POLS 206 | American National Government ³          | 3                     |
| POLS 207 | State and Local Government ³            | 3                     |

Communication

Select one of the following:

- COMM 203 Public Speaking
- COMM 205 Communication for Technical Professions
- COMM 243 Argumentation and Debate

Mathematics

Select one of the following:

- MATH 147 Calculus I for Biological Sciences ¹
- MATH 151 Engineering Mathematics I ¹
- MATH 171 Analytic Geometry and Calculus ³

Select one of the following:

- MATH 148 Calculus II for Biological Sciences ¹
- MATH 152 Engineering Mathematics II ¹
- MATH 172 Calculus ¹

American history [http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history] 6

Creative arts [http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts] 3

Language, philosophy and culture [http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture] 4

Life and physical sciences [http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences] 9


Minor 1 15-18

Minor 2 15-18

General Electives ⁵ 16-22

Total Semester Credit Hours 120

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 this requirement.
⁴ Select 3 hours from any 200-499 level course.
⁵ Three hours of courses must be in the area of International and Cultural Diversity [http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements] and three hours of courses must be in the area of Cultural Discourse [http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements]. These may be in addition to University Core Curriculum [http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum] courses, or if a course in this category satisfies an area of the Core, it can be used to meet both requirements. Remaining electives may be selected from any 100-499 course not used elsewhere, (except ALED 125; ASCC 102; ASTR 109/PHYS 109, ASTR 119/PHYS 119; BMEN 101; BUSN 100; ISEN 101; KINE 199; LAND 101; MATH 102-148, 151-166 [http://catalog.tamu.edu/undergraduate/course-descriptions/math], MATH 304, MATH 309, MATH 311, MATH 367, MATH 368, 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 4 hours of MATH 147, MATH 151, or MATH 171 may be used in this degree program.

Maximum of 4 hours of MATH 148, MATH 152, or MATH 172 may be used in this degree program.

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 3 hours of MATH 417, MATH 437 or CSCE 442 may be used in this degree program.
Maximum of 4 hours of CHEM 119, CHEM 107/CHEM 117 may be used in this degree program.