## 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 251</td>
<td>Engineering Mathematics III</td>
<td>3</td>
</tr>
<tr>
<td>MATH 300</td>
<td>Foundations of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 304</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 323 or Linear Algebra</td>
<td>3</td>
<td></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>or MATH 411 or Mathematical Probability</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 407 - MATH 499 [link to course descriptions][1]</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

### University and College Requirements

- **ENGL 103** Introduction to Rhetoric and Composition [3 hours]
- **or ENGL 10** Composition and Rhetoric [3 hours]
- **POLS 206** American National Government [3 hours]
- **POLS 207** State and Local Government [3 hours]
- **Communication** [3 hours]
  - Select one of the following:
    - **COMM 203** Public Speaking [3 hours]
    - **COMM 205** Communication for Technical Professions [3 hours]
    - **COMM 243** Argumentation and Debate [3 hours]

### Mathematics

- **Select one of the following:** [4 hours]
  - MATH 147 Calculus I for Biological Sciences [1 hour]
  - MATH 151 Engineering Mathematics I [1 hour]
  - MATH 171 Calculus I [1 hour]
- **Select one of the following:** [4 hours]
  - MATH 148 Calculus II for Biological Sciences [1 hour]
  - MATH 152 Engineering Mathematics II [1 hour]
  - MATH 172 Calculus II [1 hour]

### General Electives

- **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 [link to course descriptions][2] courses and 3 hours of Cultural Discourse [link to course descriptions][3] 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.

### Notes

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 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, 151-166 [link to course descriptions][4], 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 [link to course descriptions][5]); WESC 101).

### Core Courses (6-12 hours)

- **Life and physical sciences** [link to course descriptions][6] (9 hours)
- **Social and behavioral sciences** [link to course descriptions][7] (3 hours)

### Minor Courses

- **Minor 1** (15-18 hours)
- **Minor 2** (15-18 hours)

### General Electives

- **3 hours of Life and Physical Sciences [link to course descriptions][6] (9 hours)
- **3 hours of Social and Behavioral Sciences [link to course descriptions][7] (3 hours)
- **4 hours of Language, Philosophy and Culture [link to course descriptions][8] (3 hours)

### Total Semester Credit Hours

120