# MATHEMATICS, B.S.

<table>
<thead>
<tr>
<th>Area Distribution Requirements</th>
<th>6 Credits</th>
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<tbody>
<tr>
<td>I. Fine Arts &amp; Humanities</td>
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<tr>
<td>II. Social &amp; Behav. Sciences</td>
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<tr>
<td>III. Laboratory Sciences</td>
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**SATISFIED BY MAJOR REQUIREMENTS**

<table>
<thead>
<tr>
<th>IV. Amer./West. Civ., Amer. Govt.</th>
<th>6 Credits</th>
<th>6 Credits</th>
<th>6 Credits</th>
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<tbody>
<tr>
<td>V. Int’l. Studies/Foreign Lang.</td>
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<thead>
<tr>
<th>ELECTIVE COURSES:</th>
<th>20 Credits</th>
<th>20 Credits</th>
<th>20 Credits</th>
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**REQUIRED MAJOR COURSES:** 63 Credits

<table>
<thead>
<tr>
<th>Each of the following:</th>
<th>(44 Credits)</th>
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<tbody>
<tr>
<td>Fund. of Computer Science I</td>
<td>CS101</td>
</tr>
<tr>
<td>Calculus II</td>
<td>MAT172</td>
</tr>
<tr>
<td>Linear Algebra I</td>
<td>MAT260</td>
</tr>
<tr>
<td>Calculus III</td>
<td>MAT271</td>
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<tr>
<td>Differential Equations</td>
<td>MAT272</td>
</tr>
<tr>
<td>Math Structures</td>
<td>MAT280</td>
</tr>
<tr>
<td>Linear Algebra II</td>
<td>MAT360</td>
</tr>
<tr>
<td>Abstract Algebra I</td>
<td>MAT361</td>
</tr>
<tr>
<td>Abstract Algebra II</td>
<td>MAT362</td>
</tr>
<tr>
<td>Elementary Analysis I</td>
<td>MAT371</td>
</tr>
<tr>
<td>Elementary Analysis II</td>
<td>MAT372</td>
</tr>
<tr>
<td>Mathematics Seminar</td>
<td>MAT493</td>
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<tr>
<td>Engineering Physics</td>
<td>PHY160</td>
</tr>
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**MATH ELECTIVES:** (15 Credits)

<table>
<thead>
<tr>
<th>Choose five from the following:</th>
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<tbody>
<tr>
<td>MAT320, MAT345, MAT350, MAT390,</td>
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<tr>
<td>MAT391, MAT440, MAT470, MAT473,</td>
<td></td>
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<tr>
<td>MAT477, MAT480, MAT490, MAT496,</td>
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</tbody>
</table>

**SCIENCE ELECTIVES:** (4 Credits)

| Choose one from the following: | |
|---------------------------------|-----------------
| BIO150, BIO152, CHM122, CHM134, | PHY162, PHY260 or PHY262 |

**The Physical Sciences Dept. has suggested the following career-oriented tracks:**

- **Actuarial Track:**
  - Financial Accounting
  - Macro Economics (ADR II)
  - Micro Economics (ADR II)
  - Managerial Finance I
  - Risk Mgmt and Insurance
  - Comp. and Benefits Systems
  - Probability and Statistics

- **Computational Track with Minor in Computer Sci.:**
  - Fund. Computer Science II
  - Analysis of Algorithms
  - One course from the following:
    - CS320, CS340, CS370

- **Government Track:**
  - 12 credits of a Foreign Language of choice (6 credits fulfill ADR V)
    - Intro to East Asia
      - INT144
    - Intro to Middle East
      - INT146
    - Cryptology
      - MAT391
    - Numerical Analysis
      - MAT470
    - Math Internship
      - MAT490
    - Reading and Research
      - MAT496

- **Pure Math/Graduate School Track:**
  - Numerical Analysis
    - MAT470
  - Partial Differential Equations
    - MAT473
  - Complex Analysis
    - MAT477
  - Point-Set Topology
    - MAT480
  - Reading and Research
    - MAT496

* All courses must be completed with a minimum “2.0” grade. Courses may not be taken on a pass/fail basis.
* A minimum of 12 credits of the Area Distribution Requirements must be at the 200-level or above. Courses may not be taken on a pass/fail basis. See Registrar’s Office for official list of courses.
* Six credits are to be taken in one of these two areas; if foreign language is selected, six credits must be in one language.
* Requirements listed apply to students who matriculate into or declare this major during the 2014-2015 academic year.

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(Signed) Faculty Advisor     Date
(Signed) Dept. Chair          Date