Mathematics, B.A./B.S., Theoretical Mathematics Concentration
303-556-3208 Science Building 1022

*TO BE COMPLETED WITHIN FIRST 30 COLLEGE-LEVEL CREDIT HOURS

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<tr>
<th>Written Communication</th>
<th>Oral Communication*</th>
<th>Quantitative Literacy*</th>
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<tbody>
<tr>
<td>___ ENG 1010 (3 hrs.) Freshman English: The Essay*</td>
<td>___ (3 hrs.)</td>
<td>___ MTH 1110-4 College Algebra or higher-level mathematics course</td>
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<td>or ENG 1008/1009 (6 hrs.) Freshman Comp: The Essay Part I &amp; II*</td>
<td>___ (3 hrs.)</td>
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<tr>
<td>___ ENG 1020 (3 hrs.) Freshman English: Anal.,Rsrch.&amp; Docum. (must be completed within 45 credit hours)</td>
<td>___ (3 hrs.)</td>
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<tr>
<th>Arts and Humanities</th>
<th>Historical</th>
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<td>___ (3 hrs.)</td>
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<tr>
<th>Natural and Physical Sciences</th>
<th>Social and Behavioral Sciences I</th>
<th>Social and Behavioral Sciences II</th>
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<td>___ (3 hrs.)</td>
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<th>Global Diversity</th>
<th>Multicultural Requirement</th>
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<td>___ (3 hrs.) may be satisfied within General Studies</td>
<td>(may be satisfied within General Studies major, minor, or elective)</td>
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**MAJOR CORE COURSES** (Please see a Faculty Advisor)

All majors in mathematics are required to complete the following basic core of courses (with a required minimum grade of “C” in each of these courses).

- ___ MTH 1410 (4 hrs) Calculus I
- ___ MTH 2410 (4 hrs) Calculus II
- ___ MTH 2420 (4 hrs) Calculus III
- ___ MTH 3100 (3 hrs) Introduction to Mathematical Proofs

One of the following three courses:

- ___ CS 1050 (4 crh) Computer Science 1
- OR ___ CSS 1247 (4 crh) Introduction to Programming: Visual Basic
- OR ___ CSS 1510 (4 crh) Computer Programming: FORTRAN

**Required Theoretical Mathematics Concentration Courses**

- ___ MTH 3110 (3 crh) Abstract Algebra I
- ___ MTH 3140 (4 crh) Linear Algebra
- ___ MTH 4410 (4 crh) Advanced Calculus I
- ___ MTH 4420 (3 crh) Advanced Calculus II

*MTH 3130 and one of the following (MTH 3650 or MTH 4150 or MTH 4640) may substitute for MTH 3140.

Choose two of the following courses:

- ___ MTH 4110 (3 crh) Abstract Algebra II
- ___ MTH 4450 (4 crh) Complex Variables
- ___ MTH 4660 (3 crh) Topology

**MINOR** (required)

- 3 Multicultural Requirement

ELECTIVES 29-30