**BA in Mathematics with Secondary Ed Focus**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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<tbody>
<tr>
<td>MATH 241 Calculus I FS</td>
<td>MATH 243 Calculus III</td>
<td>MATH 412 Intro to Abstract Algebra I W</td>
<td>MATH 431 Principles of Analysis I W</td>
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<tr>
<td>English 100 FW</td>
<td>MATH 321 Intro. Advanced Math W DS</td>
<td>Math 372 Elementary Probability and Statistics</td>
<td>MATH 471 Probability</td>
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<tr>
<td>FG</td>
<td>HSL 201</td>
<td>Math 351 Foundation of Euclidean Geometry DB</td>
<td>MATH 411 Linear Algebra</td>
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<td>Elective</td>
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<td>MATH 242 Calculus II</td>
<td>MATH 244 Calculus IV</td>
<td>MATH 413 Intr. to Abstract Algebra II</td>
<td>MATH 420 Intro. to the Theory of Numbers W</td>
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<tr>
<td>301 Intro. Discrete Mathematics FG DA</td>
<td>MATH 311 Introduction to Linear Algebra HSL 202 DS</td>
<td>Math 352 Non-Euclidean Geometries DH DP DY</td>
<td>MATH 472 Statistical Inference</td>
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<td>HSL 102</td>
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<td>MATH 480 Senior Seminar O Elective</td>
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<td>Math Emporium</td>
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**Foundations and Diversification**

These include the calculus sequence and UHM Gen. Ed. Core Requirements.

**Bridge**

These courses are your bridge to upper level mathematics. In 307 or 311, 321, & 331 you develop the tools to do advanced mathematics. The 300-level topics courses are good to take in your 2nd & 3rd year.

- **311 Intro. Linear Algebra**
- **307 Linear Alg. & Diff. Equations**
- **321 Intro. Adv. Math**
- **331 Intro. Real Analysis**
- **301 Intro. Discrete Mathematics**
- **302 & 303 Intro. Diff. Equations**
- **304 Mathematical Modeling: Deterministic Models**
- **305 Math Modeling: Probabilistic Models**
- **351 Foundation of Euclidean Geometry**
- **352 Non-Euclidean Geometry**
- **372 Elem. Probability & Statistics**

**Hawaiian/Second Language and Focus**

These graduation requirements include two years of language and an Ethics, Writing Intensive and Oral component.

**Core**

These are the core courses of the major. MATH 412 & 413 and 431 & 432 are minimum requirements for most graduate math programs. Even if you are not continuing to grad school, math majors should take the bulk of their courses from this section.

- **412 & 413 Intro. to Abstract Algebra**
- **431 & 432 Principles of Analysis**
- **402 Partial Diff. Equations**
- **407 Numerical Analysis**
- **411 Linear Algebra**
- **420 Intro. to Theory of Numbers**
- **421 Topology**
- **442 Vector Analysis**
- **443 Differential Geometry**
- **444 Complex Analysis**
- **454 Axiomatic Set Theory**
- **455 Mathematical Logic**
- **471 Probability**
- **472 Statistical Inference**