# 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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</table>
| MATH 241 Calculus I FS  
English 100 FW  
FG  
HSL 101  
Elective | MATH 243 Calculus III  
MATH 321 Intro.  
Advanced Math W  
DS  
HSL 201 | MATH 412 Introduction to  
Abstract Algebra I  
W  
Math 372 Probability and Statistics  
Math 351 Euclidean Geometry  
DB | MATH 431 Principles of Analysis I  
W  
MATH 471 Probability  
MATH 411 Linear Algebra  
Elective  
Elective |
| MATH 242 Calculus II  
301 Intro. Discrete Math  
FG  
DA  
HsL 102 | MATH 244 Calculus IV  
MATH 311 Introduction to Linear Algebra W  
MATH 331 Introduction to Real Analysis  
HSL 202  
DS | MATH 413 Intr. to  
Abstract Algebra II  
Math 352 Non-Euclidean Geometry  
DH  
DP  
DY | MATH 420 Intro.  
Number Theory W  
MATH 472 Statistics  
MATH 480 Senior Seminar O  
Elective  
HAP |

**Math Emporium**

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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. & DE**
- **321 Intro. Adv. Math**
- **331 Intro. Real Analysis**
- **301 Intro. Discrete Math**
- **302 Intro. DEs**
- **304/5 Math Modeling**
- **351/352 Geometry**
- **372 Probability & Stats**

### 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. The 412/413 and 431/432 sequences 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.

- **412/3 Intro. Abstract Algebra**
- **431/2 Principles of Analysis I/II**
- **402 PDEs**
- **407 Numerical Analysis**
- **411 Linear Algebra**
- **420 Intro. Number Theory**
- **421 Topology**
- **442 Vector Analysis**
- **443 Differential Geometry**
- **444 Complex Analysis**
- **454 Set Theory**
- **455 Logic**
- **471 Probability**
- **472 Statistical Inference**