BA in Mathematics with Secondary Ed Focus

| Year 1 | Year 2 | Year 3 | Year 4 |
| :---: | :---: | :---: | :---: |
| MATH 241 Calculus I FS <br> English 100 FW FG <br> HSL 101 <br> Elective | MATH 243 Calculus III MATH 321 Intro. Advanced Math W DS HSL 201 | MATH 412 Intro to Abstract Algebra I W <br> Math 372 Elementary <br> Probability and Statistics <br> Math 351 Foundation of Euclidean Geometry DB | MATH 431 Principles of Analysis I W MATH 471 Probability MATH 411 Linear <br> Algebra <br> Elective <br> Elective |
| MATH 242 Calculus II <br> 301 Intro. Discrete <br> Mathematics <br> FG <br> DA <br> HSL 102 | MATH 244 Calculus IV MATH 311 Introduction to Linear Algebra MATH 331 Introduction to Real Analysis W HSL 202 DS | MATH 413 Intr. to Abstract Algebra II Math 352 NonEuclidean Geometries DH DP DY | MATH 420 Intro. to the Theory of Numbers W MATH 472 Statistical Inference MATH 480 Senior Seminar O Elective HAP |
|  |  | Math Emporium |  |

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

## Hawaiian/Second

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

## 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 $2^{\text {nd }} \& 3^{\text {rd }}$ 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

## 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

