BS in Mathematics with specialization in Applied Mathematics (Certificate Math Bio)

Year 1	Year 2	Year 3	Year 4
MATH 241 Calculus I FS English 100 FW Bio 171 DB** HSL 101 FG	MATH 243 Calculus III MATH 321 Introduction to Advanced Mathematics W HSL 201 PHYS 272L DP DY	Math 302 Intro Differential Equations I* Math 304 Math Modeling I** Bio 265** CHEM 161 or 171/L DP DY Related XXX	MATH 431 Principles of Analysis I W MATH 471 Probability* Related XXX E Related XXX HAP
MATH 242 Calculus II FG DH PHYS 170L DP DY Bio 172 DB** H/SL 102	MATH 244 Calculus IV MATH 331 Introduction to Real Analysis W MATH 307/311 Introduction to Linear Algebra HSL 202 DS	Math 305 Math Modeling** MATH 407 Numerical Analysis* CHEM 162 or 272/L Bio 275** Related XXX W	MATH 442 Vector Analysis* MATH 472 Statistical Inference* MATH 480 Senior Seminar O Related XXX W DA
		Summer REU	

Foundations and Diversification

These include the calculus I-IV and UHM Gen. Ed. Core Requirements.

In these courses, you should acquire the tools to succeed in college and be introduced to global and Hawaiian perspectives.

Hawaiian/Second Language and Focus

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 other 300 level topics courses are good to take in your 2nd & 3rd year.

- 311 Intro. Linear Algebra
- 307 Linear Alg. & Diff. Eqns.
- 321 Intro. Adv. Math
- 331 Intro. Real Analysis
- 301 Intro. Discrete Math
- 302 & 303 Intro. Diff. Eqns*
- 304 & 305 Math Modeling
- 351 & 352 Foundation of Euclidean & Nono Euclidean Geometry
- 372 Elementary Probability & Statistics*

Core

These are the core courses of the major. Math 412 & 413, and 431 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. Abstract Algebra
- 431 & 432 Principles of Analysis I & II
- 402 Partial Diff. Eqns*
- 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 Math Logic
- 471 Probability*
- 472 Statistical Inference*

For a BS, up to 15 credits of upper division courses can come from related disciplines (Related XXX).
* Denotes suggested mathematics electives for a student interested in applied mathematics.
** Denotes required courses for Certificate in Math Biology.