

BS in Mathematics for a student interested in grad school

Year 1	Year 2	Year 3	Year 4
MATH 241 Calculus I FS DS FG FW HSL 101	MATH 243 Calculus III MATH 321 Intro. to Advanced Math. W Phys 272L DP DY HSL 201	MATH 412 Intro. to Abstract Algebra I W MATH 411 Linear Algebra Chem 171/L DP DY DA	MATH 431 Principles of Analysis I W MATH 421 Topology Math 454 Set Theory Related XXX DB
MATH 242 Calculus II Phys 170L DP DY FG HSL 102	MATH 244 Calculus IV MATH 331 Intro. to Real Analysis MATH 311 Intro. to Linear Algebra W HSL 202	MATH 413 Intro. to Abstract Algebra II W MATH 444 Complex Analysis Math 302 Intro DEs I Chem 271/L DP DY DH	Math 442 Vector Analysis MATH 420 Intro. Number Theory W MATH 480 Senior Seminar O Related XXX HAP
		Summer REU	Grader for 302

Foundations and Diversification

These include the calculus sequence 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 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 (373 Spring 2017)

Core

These are the core courses of the major. The 412/413 sequence and 431 are minimum requirement 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
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

For a BS in Mathematics, up to 15 upper division credits may be replaced by appropriate non-introductory courses in the natural sciences, denoted Related XXX. One of these can be used to satisfy the “algorithms and logic” major requirement.