# BS in Mathematics with specialization in Applied Mathematics

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
</table>
| MATH 241 Calculus I FS  
English 100 FW  
FG  
ICS111  
ICS141 | MATH 243 Calculus III  
MATH 321 Intro. to Advanced Math W  
Phys 272L DP DY  
H/SL 101 | MATH 411 Linear Algebra  
Math 302 Intro DEs*  
Related XXX DB**  
Related XXX  
Chem 171/L DP DY  
H/SL 201 | MATH 431 Principles of Analysis I W  
MATH 402 PDEs*  
MATH 471 Probability*  
Related XXX W**  
HAP |
| MATH 242 Calculus II  
ICS211  
ICS241  
FG  
Phys 170L DP DY | MATH 244 Calculus IV  
MATH 311 Introduction to Linear Algebra W  
MATH 331 Introduction to Real Analysis  
H/ SL 102  
DH | MATH 407 Numerical Analysis*  
Related XXX W**  
DS  
Chem 271/L DP DY  
H/SL 202 | MATH 442 Vector Analysis  
MATH 472 Statistical Inf*  
MATH 480 Senior Seminar* O  
Related XXX E**  
DA |

## 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.

## 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**

## 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 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 I**

**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***

Up to 15 credits of upper division courses can come from related disciplines.

<table>
<thead>
<tr>
<th>3xx-4xx Suggested Courses:</th>
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<tbody>
<tr>
<td>Phys: 305, 310, 311, 350, 400</td>
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<tr>
<td>ICS: 311, 314, 361, 414, 435, 442, 461, 475, 483, ME:360</td>
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</tbody>
</table>

* Denotes suggested electives for a student interested in applied in mathematics.

**Certain upper level science courses can be used to fulfill the DB, WI and E requirements.