

**University of Hawai'i at Mānoa**  
**College of Natural Sciences Program Sheet 2021-2022**  
**Bachelor of Science (BS) in Mathematics**  
**Computational Science Track**  
**Admissions: Open Process: Declaration**  
**Min. Total Credits: 120 (113 in core & major + 7 in electives)**

UHM General Education Core Requirements
<b>Foundations</b>
<input type="checkbox"/> FW ENG 100, 100A, 190, ESL 100, or AMST 111
<input type="checkbox"/> FQ* MATH 241 or 251A
<input type="checkbox"/> FG (A / B / C)
<input type="checkbox"/> FG (A / B / C)
<i>*Note: This requirement changed in Fall 2018. If you entered the UH System prior to that, please see your college/school advisor.</i>
<b>Diversification</b>
<input type="checkbox"/> DA / DH / DL
<input type="checkbox"/> DA / DH / DL
<input type="checkbox"/> DB
<input type="checkbox"/> DP PHYS 170
<input type="checkbox"/> DY PHYS 170L
<input type="checkbox"/> DS
<input type="checkbox"/> DS
<i>* See degree, college and major requirements for courses that can also fulfill these.</i>
UHM Graduation Requirements
<b>Focus</b>
<input type="checkbox"/> H
<input type="checkbox"/> E (300+)
<input type="checkbox"/> O (300+)
<input type="checkbox"/> W
<input type="checkbox"/> W
<input type="checkbox"/> W
<input type="checkbox"/> W (300+)
<input type="checkbox"/> W (300+)
<b>Hawaiian / Second Language</b>
<input type="checkbox"/> 101
<input type="checkbox"/> 102
<input type="checkbox"/> 201
<input type="checkbox"/> 202
<b>Credit Minimums</b>
• 120 total applicable
• 30 in residence at UHM
• 45 upper division (300+ level) credits
<b>Grade Point Average</b>
• 2.0 cumulative or higher ( <i>Note: Other GPAs may be required.</i> )
• Good academic standing

Degree Requirements
<b>Bachelor of Science Requirements</b>
<input type="checkbox"/> Calculus I
<input type="checkbox"/> Calculus II
<input type="checkbox"/> Chemistry I with lab
<input type="checkbox"/> Chemistry II with lab
<input type="checkbox"/> Physics I with lab
<input type="checkbox"/> Physics II with lab
<i>Refer to major requirements for the specific courses that satisfy these requirements.</i>
<b>Credit Maximums</b>
• 8 KRS activity
• 9 Directed Reading / Research
• 12 Practicum / Internship

Admission: Open

Application: NA

Min. major credits: BS = 45 (69-70 with related requirements)

Min. C grade (not C-) in courses

### Requirements

#### Mathematics Prerequisites Requirements (11-12 credits)

MATH 241\*<sup>FQ</sup> or 251A\*<sup>FQ</sup>

MATH 242 or 252A

MATH 243 or 253A

#### Related Mathematics Requirements (13 credits)

PHYS 170\*<sup>DP</sup> /  170L\*<sup>DY</sup>

PHYS 272\*<sup>DP</sup> /  272L\*<sup>DY</sup>

ICS 111

#### Mathematics Courses (45 credits; see department for approved courses; see catalog for prerequisites)

MATH 244 or 253A

Students must demonstrate an understanding of algorithms and logic, as well as precision of thinking. Courses that satisfy this requirement are MATH 190, 301, 304L, 305L, 407, 414; CEE 417; EE 160; EARTH 250; ICS 110C, 110D, 111, 211; ME 360; PHYS 305.

**30 core credits** in MATH 300-479 courses:

MATH 304    MATH 305    MATH 311 or 307    MATH 321    MATH 331

MATH 402    MATH 407    MATH 411    MATH 414    \_\_\_\_\_

**10 related credits** of ICS courses:

ICS 211

ICS 212

ICS 484

The following requirements must be fulfilled in regards to the **43 above credits** (check completed):

6 credit hours in writing-intensive mathematics courses

12 credit hours in courses numbered above 400

MATH 480 (CR/NC only) (Spring only, last semester)

#### Additional Mathematics Restrictions

*Only one of MATH 307 and 311 may be counted toward major requirements.*

*Mandatory advising each semester prior to registration.*

Student Academic Success Center; Sinclair 301; (808) 956-5911; [cnsadvis@hawaii.edu](mailto:cnsadvis@hawaii.edu); [natsci.manoa.hawaii.edu/sasc](http://natsci.manoa.hawaii.edu/sasc)

Mathematics Department: Keller 401-A; (808) 956-4680; [office@math.hawaii.edu](mailto:office@math.hawaii.edu); [www.math.hawaii.edu](http://www.math.hawaii.edu)

Mathematics Undergraduate Advisor: Keller 419; (808) 956-4679

There may be exceptions to the major requirements listed above. Please schedule an advising appointment with Undergraduate Advising personnel for more detailed information.