## UHM General Education Core Requirements

### Foundations
- FW  ENG 100, 100A, 190, ESL 100, or AMST 111
- FS  MATH 241
- FG (A / B / C)
- FG (A / B / C)

### Diversification
- DA / DH / DL
- DA / DH / DL
- DB
- DP  CHEM 161 or 171, or PHYS 170
- DY  CHEM 161L or 171L, or PHYS 170L
- DS
- DS

* See degree, college and major requirements for courses that can also fulfill these.

## UHM Graduation Requirements

### Focus
- H
- E (300+)  PHYS 485
- O (300+)  ASTR 301

- W  PHYS 274L
- W
- W  ASTR 300L
- W (300+)  ASTR 494
- W (300+)  ASTR 494

### Hawaiian / Second Language
- 101
- 102
- 201
- 202

### Credit Minimums
- 120 total applicable
- 30 in residence at UHM
- 45 upper division (300+ level) courses

### Grade Point Average
- 2.0 cumulative or higher  *(Note: Other GPAs may be required.)*
- Good academic standing

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### Bachelor of Science Requirements

### Calculus I
- Calculus II
- Chemistry I with lab
- Chemistry II with lab
- Physics I with lab
- Physics II with lab

*Refer to major requirements for the specific courses that satisfy these requirements.*

### Credit Maximums
- 8 KRS activity
- 9 Directed Reading / Research
- 12 Practicum / Internship

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This program sheet was prepared to provide information and does not constitute a contract. See back for major requirements. 
Meet regularly with your major advisor. Advising is mandatory every semester for Astrophysics majors.
## Major Requirements for BS in Astrophysics

Admission: Open  
Application: NA  
Min. major credits: 63 in Physics and Astronomy courses (88 with related requirements)  
Min. C grade (not C-) in all courses

### Requirements

**Astrophysics Related Requirements (25 credits)**
- CHEM 161* / □ 161L  
- CHEM 162* / □ 162L or 171/171L or 181A/181L  
- MATH 241*  
- MATH 242  
- MATH 243  
- MATH 244  
- MATH 311 or 307

*MATH 251A*, 252A and 253A may be substituted for *MATH 241-244*.  
*MATH 215* and 216 may be substituted for 241 and 242 with approval from major advisor.

**Astrophysics Core Courses (54 credits; see catalog for prerequisites)**
- PHYS 170* / □ 170L  
- PHYS 272* / □ 272L  
- PHYS 274* / □ 274L  
- PHYS 310  
- PHYS 311  
- PHYS 350  
- PHYS 450  
- PHYS 480  
- PHYS 485  
- ASTR 242*  
- ASTR 241*  
- ASTR 300 / □ 300L  
- ASTR 301  
- ASTR 423

- □ ASTR 494 (6 credits, distributed across two semesters)

**Additional Courses (9 credits; see catalog for prerequisites)**

1 course from Group 1: ASTR 320, 426, 430  
[ ] □ [ ]

2 courses from Group 2: PHYS 400, 460, 481, 490  
[ ] □ [ ]

### Notes

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