

University of Hawai'i at Mānoa **Colleges of Arts & Sciences Program Sheet 2015-2016 Bachelor of Arts (BA) in Astronomy** Admissions: Open Process: Declaration Min. Total Credits: 120 (111 in core & major + 9 in electives)

UHM General Education Core Requirements

Foundations
FW ENG 100, 100A, 190, or ESL 100
□ FS MATH 241
$\Box FG(A/B/C)$
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Diversification

DA/DH/DL
DA/DH/DL
DB
DP CHEM 161 or 171, or PHYS 151
DY CHEM 161L or 171L, or PHYS 151L
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 ASTR 281
□ W ASTR 300L
□ W (300+) ASTR 380
□ W (300+) ASTR 494
Hawaiian / Second Language
1 01
1 02
2 01
2 02
Credit Minimums
• 120 total applicable
• 30 in residence at UHM
• 45 upper division (300+ level) credits
Grade Point Average
• 2.0 cumulative or higher (<i>Note: Other GPAs may be</i>
required)

required.)

• Good academic standing

> 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 Astronomy majors.

Degree Requirements

College Requirements

Credit Maximums • 8 KRS activity

- 9 Directed Reading / Research
- 12 Practicum / Internship

Major Requirements for BA in Astronomy

Admission: Open

Application: NA

Min. major credits: 48 in Astronomy and Physics courses (64-65 with related requirements)

Min. C grade (not C-) in all courses

Requirements

Astronomy & Physics Related Requirements (16-17 credits)

□ CHEM 161^{*DP} / □ $161L^{*DY}$ □ CHEM 162^{*DP} / □ $162L^{*DY}$ or 171/171L or 181A/181L

□ MATH 241*^{FS}

MATH 242

MATH 251A*^{FS}, 252A and 253A may be substituted for MATH 241-244.

MATH 215^{*FS} and 216 may be substituted for 241 and 242 with approval from major advisor.

Recommended languages: German, French, or Japanese

Astronomy & Physics Core Courses (27 credits; see catalog for prerequisites)

□ PHYS 151*^{DP} / □ 151L*^{DY}

□ PHYS 152*^{DP} / □ 152L*^{DY}

PHYS 485

ASTR 210^{DP}

ASTR 300 / 300L

ASTR 301 ASTR 320

□ ASTR 494 (3 credits)

Additional Courses (21 credits; see catalog for prerequisites)

3 courses from Group 1: ASTR 110, 120, 130, 140, 150, 280, 281, 380, 399, 426, 430, 494

Must include at least 6 upper division credits, including at least 3 credits at the 400-level.

110-150 only count if taken before 210; 399 may be taken for a maximum of 3 credits; 494 may be taken a second time as an elective only in addition to the core requirement.

4 courses from Group 2: CHEM 272, ECON 321, EE 160, GG 101 (or 170), any GG course at 200-level or higher worth at least 3 credits, ICS 111, 211, MATH 243, 244, PHYS 274, any MATH or PHYS course at 300-level or higher worth at least 3 credits.

Notes

College of Natural Sciences Advising: Bilger 102; (808) 956-6451

Department of Physics and Astronomy: Watanabe 416; (808) 956-7087; undergrad@ifa.hawaii.edu