

University of Hawai'i at Mānoa Colleges of Arts & Sciences Program Sheet 2016-2017 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
<b>FW</b> ENG 100, 100A, 190, ESL 100, or AMST 111
□ FS MATH 241
$\Box FG(A/B/C)$
$\Box FG(A/B/C)$

## Diversification

DA/DH/DL
DA/DH/DL
DB
<b>DP</b> CHEM 161 or 171, or PHYS 151
<b>DY</b> 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
<b>□</b> 101
<b>1</b> 102
<b>Q</b> 201
<b>Q</b> 202
Credit Minimums
• 120 total applicable
• 30 in residence at UHM
• 50 m residence at 01101
45 upper division (300+ level) credits
• 45 upper division (300+ level) credits

# *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 Maximums8 KRS activity

- 9 Directed Reading / Research
- 12 Practicum / Internship

Major Requirements for BA in Astronomy
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Admission: Open

Application: NA

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

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

**Requirements** 

Astronomy & Physics Related Requirements (16 credits)

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

□ MATH 241\*<sup>FS</sup>

**MATH 242** 

MATH 251A\*<sup>FS</sup>, 252A and 253A may be substituted for MATH 241-244.

MATH 215<sup>\*FS</sup> 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\*<sup>DP</sup> / □ 151L\*<sup>DY</sup>

□ PHYS 152\*<sup>DP</sup> / □ 152L\*<sup>DY</sup>

**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

Department of Physics and Astronomy: Astronomy Undergraduate Advisors:

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