

# ASTRONOMY AND ASTROPHYSICS, B.S.

**Begin Campus:** Any Penn State Campus

**End Campus:** University Park

## Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2021-22 academic year. To access previous years' suggested academic plans, please visit the archive (<https://bulletins.psu.edu/undergraduate/archive/>) to view the appropriate Undergraduate Bulletin edition (*Note: the archive only contain suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin*).

### Computer Science Option: Astronomy and Astrophysics, B.S. at University Park Campus

The course series listed below provides **only one** of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an **Academic Requirements** or **What If** report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

#### First Year

Fall	Credits Spring	Credits
ASTRO 20	2 ENGL 15, 30H, or ESL 15 <sup>‡</sup>	3
MATH 140 <sup>*†#†</sup>	4 MATH 141 <sup>*†#†</sup>	4
CHEM 110 <sup>*#†</sup>	3 CHEM 111 <sup>†</sup>	1
PHYS 211 <sup>*#†</sup>	4 CHEM 112	3
General Education Course	3 PHYS 212 <sup>*#†</sup>	4
	General Education Course (GHW)	1.5
	<b>16</b>	<b>16.5</b>

#### Second Year

Fall	Credits Spring	Credits
ASTRO 291 <sup>*#</sup>	3 ASTRO 292 <sup>*</sup>	3
MATH 230	4 MATH 251	4
PHYS 213 <sup>*</sup>	2 PHYS 237	3
PHYS 214 <sup>*</sup>	2 CMPSC 121, 201, or 202 <sup>†</sup>	3
CAS 100, 100A, 100B, or 100C <sup>‡</sup>	3 General Education Course	3
	<b>14</b>	<b>16</b>

#### Third Year

Fall	Credits Spring	Credits
ASTRO 320	3 ASTRO 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3
ASTRO 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3 CMPSC 221	3
CMPSC 122	3 CMPSC 360 or CMPEN 271	3

STAT 300 or 400 level selection (consult with an academic adviser for options)	3 ENGL 202C <sup>††</sup>	3
General Education Course	3 General Education Course	3
General Education Course (GHW)	1.5	
	<b>16.5</b>	<b>15</b>

#### Fourth Year

Fall	Credits Spring	Credits
ASTRO 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3 ASTRO 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3
CMPSC 451 or MATH 451	3 CMPSC/CMPEN 400 Level selection (consult with an academic adviser for options)	3
CMPSC 465 or CMPEN 331	3 Supporting Course (consult with an academic adviser for options)	3
Supporting Course (consult with an academic adviser for options)	1 Supporting Course (consult with an academic adviser for options)	3
General Education Course	3 Supporting Course (consult with an academic adviser for options)	3
General Education Course	3	
	<b>16</b>	<b>15</b>

#### Total Credits 125

- \* Course requires a grade of C or better for the major
- ‡ Course requires a grade of C or better for General Education
- # Course is an Entrance to Major requirement
- † Course satisfies General Education and degree requirement

#### University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy University Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

GWS, GQ, GHW, GN, GA, GH, and GS are abbreviations used to identify General Education program courses. General Education includes Foundations (GWS and GQ) and Knowledge Domains (GHW, GN, GA, GH, GS, and Integrative Studies). Foundations courses (GWS and GQ) require a grade of 'C' or better.

Integrative Studies courses are required for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and ENGL 138T/CAS 138T in the spring semester. These courses carry the

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GWS designation and replace both ENGL 30H and CAS 100. Each course is 3 credits.

## Graduate Studies Option: Astronomy and Astrophysics, B.S. at University Park Campus

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### First Year

Fall	Credits Spring	Credits
ASTRO 20	2 ENGL 15, 30H, or ESL 15 <sup>‡</sup>	3
MATH 140 <sup>*‡#†</sup>	4 MATH 141 <sup>*‡#†</sup>	4
CHEM 110 <sup>*‡#†</sup>	3 CHEM 111 <sup>†</sup>	1
PHYS 211 <sup>*‡#†</sup>	4 CHEM 112 <sup>†</sup>	3
General Education Course	3 PHYS 212 <sup>*‡#†</sup>	4
	General Education Course (GHW)	1.5
	<b>16</b>	<b>16.5</b>

### Second Year

Fall	Credits Spring	Credits
ASTRO 291 <sup>*#</sup>	3 ASTRO 292 <sup>*</sup>	3
MATH 230	4 MATH 251	4
PHYS 213 <sup>*</sup>	2 PHYS 237	3
PHYS 214 <sup>*</sup>	2 CMPSC 121, 201, or 202	3
CAS 100, 100A, 100B, or 100C <sup>‡</sup>	3 General Education Course	3
	<b>14</b>	<b>16</b>

### Third Year

Fall	Credits Spring	Credits
ASTRO 320	3 ASTRO 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3
ASTRO 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3 PHYS 400	4
MATH 405, 411, or 417	3 CMPSC/MATH/STAT selection (consult with an academic adviser for options)	3
PHYS 419 or MATH 419	3 ENGL 202C <sup>‡†</sup>	3
General Education Course	3 General Education Course	3
General Education Course (GHW)	1.5	
	<b>16.5</b>	<b>16</b>

### Fourth Year

Fall	Credits Spring	Credits
ASTRO 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3 ASTRO 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3
PHYS 410	4 PHYS 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3

PHYS 400 level selection (consult with an academic adviser for options) <sup>*</sup>	3 Supporting Course (consult with an academic adviser for options)	3
General Education Course	3 Supporting Course (consult with an academic adviser for options)	3
General Education Course	3 Supporting Course (consult with an academic adviser for options)	2
	<b>16</b>	<b>14</b>

### Total Credits 125

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Integrative Studies courses are required for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.