## Astronomy and Astrophysics Major (Honors)

Sample Academic Plan for students beginning in Math 1151						
Year	Autumn Semester	Credit hours	Course Title	Spring Semester	Credit Hours	Course Title
1	ArtsSci 1100.01H	1	Honors Survey	Astron 1221 or	3	Programming Req. see
	Astron 2895	1	Seminar	CSE 122x^	5	note below
	GenEd 1201	1	GE Launch Seminar	Math 1152*	5	Calculus II
	Math 1151*	5	Calculus I	Physics 1251H <sup>%#</sup>	5	Honors Intro Physics II
	Physics 1250H <sup>%</sup>	5	Honors Intro Physics I	World Lang. 2	4	
	World Lang. 1	4				
	Total Hours	17		Total Hours	17	
2	Astron 2291	3	Intro Astrophysics I	Astron 2292	3	Intro Astrophysics II
	Math 2153*	4	Calculus III	Math 2415*	3	Differential Equations
	Physics 2300 <sup>#</sup>	4	Mechanics I	Math 2568*	3	Linear Algebra
	World Lang. 3	4		Physics 2301 <sup>#</sup>	4	Mechanics II
				Gen Ed Course	3	
	Total Hours	15		Total Hours	16	
3	Astron 3350	3	Methods of Observation	Gen Ed Course or	3	See note below
	Physics 3700	3	Data Analysis Lab	Astron 5xxx <sup>&amp;</sup>	5	
	Physics 5400H	4	Honors E&M I	Physics 5401H or	4	Honors E&M II
	Physics 5500H	4	Honors Quantum I	Physics 5501H	7	Honors Quantum II
				Gen Ed Course	3	
				Gen Ed Course	3	
				Gen Ed Course	3	
	Total Hours	14		Total Hours	16	
4	Gen Ed Course or	3	See note below	Gen Ed Course or	3	See note below
	Astron 5xxx <sup>&amp;</sup> 5		Astron 5xxx <sup>&amp;</sup>	3		
	Physics 5600	4	Statistical Mechanics	Gen Ed Course	3	
	Gen Ed Course	3		Gen Ed Course	3	
	Free Elective <sup>+</sup>	3		GenEd 4001	1	GE Reflection Seminar
				Free Elective <sup>+</sup>	3	
	Total Hours	13		Total Hours	13	

## **Degree Hours 121** (121 minimum required)

Courses in YELLOW are only offered in the term shown (i.e., offered in Autumn only or in Spring only)

NOTE: this is **only one of many** possible ways to move through the Astro curriculum. Consult with an academic advisor to develop and refine an academic plan that is appropriate for you.

Details on symbols (\*  $^{\%^{\#}\& +}$ ) can be found on the next page.

\*This "standard" calculus sequence has many acceptable variations. Consult with your academic advisor if you have already taken or wish to take a different set of courses.

<sup>7</sup>Physics 1270-1271 is a version of the introductory Physics courses specifically intended for Physics and Astro majors. The Physics 1250-1251, 1250H-1251H, 1260-1261, and 1270-1271 series are all considered to be equivalent. Physics 1250 and 1251 are offered year-round (Autumn Spring, Summer), but the others are only offered once per year in Autumn-Spring.

<sup>°</sup> Astronomy 1221 (Astronomy Data Analysis), CSE 1222 (C++), CSE 1223 (Java), or CSE 1224 (Python). Students who have changed majors from Engineering may substite Engr 1221 or Engr 1281H.

<sup>#</sup> Physics 1251H, 2300, and 2301 each require a grade of C+ or higher to move on in major coursework.

<sup>&</sup>Only one Astron 5xxx course is required: 5205 (Planetary Science) is offered in odd-year Springs; 5681 (Stellar Evolution) is offered in even-year Springs; 5682 (Cosmology) is offered every Autumn.

<sup>+</sup> Free Electives are only required if a student needs to take extra courses in order to reach the minimum of 121 degree hours for the B.S. degree set by the College of Arts and Sciences. Students may also schedule Free Electives if they prefer to remain full-time (12+ credits) for a semester.