## **Astronomy and Astrophysics Major**

Sample Academic Plan for students beginning in Math 1075 with Summer courses											
Year	Autumn Semester	Credit Hours	Course Title		Spring Semester	Credit Hours	Course Title		Summer Semester	Credit Hours	Course Title
1	ArtsSci 1100.10	1	Survey		Math 1148	4	College Algebra		Math 1149	3	Trig.
	Astron 2895	1	Seminar		World Lang. 2	4		ľ			
	GenEd 1201	1	GE Launch Sem.		Gen Ed Course	3					
	Math 1075	4	Pre-Coll. Math II		Gen Ed Course	3					
	World Lang. 1	4									
	Gen Ed Course	3						ľ			
	Total Hours	14			Total Hours	14			Total Hours	3	
2	Math 1151	5	Calculus I	$\frac{1}{1}$	Astron 1221 or	3	Programming req. see note below				
	Physics 1270 <sup>%</sup>	5	Intro Physics I		CSE 122x <sup>^</sup>	3					
	World Lang. 3	4			Math 1152*	5	Calculus II				
	Gen Ed Course	3			Physics 1271 <sup>%#</sup>	5	Intro Physics II				
					Gen Ed Course	3		ľ			
	Total Hours	17			Total Hours	16			Total Hours	0	
3	Astron 2291	3	Astrophys. I		Astron 2292	3	Astrophys. II				
	Math 2153*	4	Calculus III		Math 2415*	3	Diff. Eq.				
	Physics 2300 <sup>#</sup>	4	Mechanics I		Math 2568*	3	Linear Algebra				
	Physics 3700	3	Data Ana. Lab		Physics 2301 <sup>#</sup>	4	Mechanics II				
					Gen Ed Course	3					
	Total Hours	14			Total Hours	16			Total Hours	0	
4	Astron 3350	3	Meth. of Obs.		Physics 5400	4	Elec. & Magn.				
	Physics 5500	4	Quant. Mech. I		Physics 5501	4	Quant. Mech. II				
	Physics Elective <sup>+</sup> or	3	See note below		Physics Elective <sup>+</sup>	3	See note below				
	Astron 5xxx <sup>&amp;</sup>	<u> </u>	See Hote below		or Astron 5xxx <sup>&amp;</sup>	3	See Hote below				
	Gen Ed Course	3			Gen Ed Course	3					
	Gen Ed Course	3			GenEd 4001	1	GE Reflection Sem.				
	Total Hours	16			<b>Total Hours</b>	15			Total Hours	0	

**Degree Hours** 125 (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.

\*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.

+ Due to sequencing and availability, the required Physics 5600 class cannot be taken until Autumn Year 5. We will allow a Physics Elective - any additional upper-level Physics course - to substitute for 5600. Examples include Physics 5680 in Autumn, Physics 3470 in Spring, and Physics 5300 in 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>lt;sup>#</sup>Physics 1271, 2300, and 2301 each require a grade of C+ or higher to move on in major coursework.

<sup>&</sup>lt;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.