

Astronomy and Astrophysics Major

Sample Academic Plan for students beginning in Math 1152, 1181H, or 4181H

Year	Autumn Semester	Credit hours	Course Title	Spring Semester	Credit Hours	Course Title
1	ArtsSci 1100.10	1	Survey	Astron 1221 or CSE 122x [^] Math 2153* Physics 1271 ^{%#} World Lang. 2	3 5 5 4	Programming Req. see note below Calculus III Intro Physics II
	Astron 2895	1	Seminar			
	GenEd 1201	1	GE Launch Seminar			
	Math 1152*	5	Calculus II			
	Physics 1270 [%]	5	Intro Physics I			
	World Lang. 1	4				
	Total Hours	17				
2	Astron 2291	3	Intro Astrophysics I	Astron 2292	3	Intro Astrophysics II
	Math 2415*	3	Differential Equations	Math 2568*	3	Linear Algebra
	Physics 2300 [#]	4	Mechanics I	Physics 2301 [#]	4	Mechanics II
	World Lang. 3	4		Physics 3700	3	Data Analysis Lab
	Total Hours	14		Total Hours	13	
3	Astron 3350	3	Methods of Observation	Physics 5400	4	E&M
	Physics 5500	4	Quantum Mechanics I	Physics 5501	4	Quantum Mechanics II
	Gen Ed Course	3		Gen Ed Course or Astron 5xxx ^{&}	3	See note below
	Gen Ed Course	3		Gen Ed Course	3	
	Gen Ed Course	3		Total Hours	14	
	Total Hours	16				
4	Gen Ed Course or Astron 5xxx ^{&}	3	See note below	Gen Ed Course or Astron 5xxx ^{&}	3	See note below
	Physics 5600	4	Statistical Mechanics	Gen Ed Course	3	
	Gen Ed Course	3		Gen Ed Course	3	
	Free Elective [†]	3		GenEd 4001	1	GE Reflection Seminar
	Free Elective [†]	3		Free Elective [†]	3	
				Free Elective [†]	3	
	Total Hours	16		Total Hours	16	

Degree Hours 123 (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.

Students beginning in Math 1181H or Math 4181H will follow a similar plan:

If starting in Math 1181H, replace Math 1152 in Autumn Year 1 with Math 1181H (5 cr.) and replace Math 2153 in Spring Year 1 with Math 2182H (5 cr.).

If starting in Math 4181H, replace Math 1152 in Autumn Year 1 with Math 4181H (5 cr.) and replace Math 2153 in Spring Year 1 with Math 4182H (5 cr.). Students on this path may optionally take Math 5520H as well - replace Math 2415 + one Gen Ed Course in Autumn Year 2 with Math 5520H (5 cr.) and replace Math 2568 in Spring Year 2 with one Gen Ed Course (3 cr.)

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.

^ Astronomy 1221 (Astronomy Data Analysis), CSE 1222 (C++), CSE 1223 (Java), or CSE 1224 (Python). Students who have changed majors from Engineering may substitute Engr 1221 or Engr 1281H.

Physics 1271, 2300, and 2301 each require a grade of C+ or higher to move on in major coursework.

& 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.

† 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.