Physics - Astronomy and Astrophysics Option

Freshman Year	Credits	
	Fall	Spring
PHSX 240 - Honors Gen & Mod Phys I	4	
M 181Q - Honors Calculus I or M 171Q - Calculus I	4	
University Core and Electives	7	
PHSX 242 - Honors Gen & Mod Phys II		4
M 182 - Honors Calculus II or M 172 - Calculus II		4
University Core and Electives		7
Year Total:	15	15

Sophomore Year	Credits	
	Fall	Spring
PHSX 224 - Physics III	4	
PHSX 261 - Laboratory Electronics I	3	
M 283 - Honors Multivariable Calculus or M 273 - Multivariable Calculus	4	
University Core and Electives	4	
ASTR 372 - Stars and the Milky Way		3
PHSX 301 - Mathematical Methods in the Physical Sciences		3
M 284 - Honors Introduction to Differential Equations or M 274 - Introduction to Differential Equation		4
University Core and Electives		4
PHSX 200 - Research Programs in Physics		1
Year Total:	15	15

Junior Year	Credits	
	Fall	Spring
PHSX 320 - Classical Mechanics	3	
PHSX 331 - Methods of Computational Physics	2	
PHSX 343 - Modern Physics	3	
PHSX 490R - Undergraduate Research	1	
ASTR 373 - Extragalactic Astronomy	3	
University Core and Electives	3	
PHSX 423 - Electricity and Magnetism I		3
PHSX 446 - Thermodynamics & Statistical Mechanics		3
Technical Electives		3
Directed Electives		3
University Core and Electives		3
Year Total:	15	15

Senior Year	Credits	
	Fall	Spring
PHSX 425 - Electricity and Magnetism II	3	
PHSX 461 - Quantum Mechanics I	3	
ASTR 475 - Observational Astronomy Techniques (Observational Astronomy)	4	
PHSX 490R - Undergraduate Research	1	
Technical Electives	1	
University Core and Electives	3	
ASTR 476 - Theoretical Astrophysics or PHSX 435 - Astrophysics		3
PHSX 499R - Senior Capstone Seminar		1
Directed Electives		3
Technical Electives		3
University Core and Electives		5
Year Total:	15	15
Total Program Credits:		**120**

The 7 credits of Technical Electives are to be selected from PHSX, M, STAT, CSCI, EELE, and EMEC courses numbered 300 and above and ASTR courses numbered 374 and above. The 6 credits of Directed Electives are to be selected from PHSX 262, PHSX 444, PHSX 451, PHSX 462, M 348, STAT 332, STAT 441, STAT 412, and CSCI 347. Courses can not be double counted for Technical Electives and Directed Electives, but extra Directed Electives can be counted as Technical Electives. The Technical Electives and Directed Electives together can include no more than 1 credit of PHSX 494, 3 credits of PHSX 492 and no more than 3 credits of PHSX 490R. Technical Electives and Directed Electives together can include no more than 4 credits of the combination of PHSX 494, PHSX 492, and PHSX 490R.

PHSX 401, PHSX 402, PHSX 403, and PHSX 405 can not be counted towards Technical Electives or Directed Electives.

A minimum of 120 credits is required for graduation; 42 of these credits must be in courses numbered 300 and above. A student changing majors or with unusual circumstances can substitute PHSX 220 for PHSX 240 or PHSX 222 for PHSX 242 with academic advisor's approval.

-ASTR 373 and ASTR 475 are taught alternate years. ASTR 373 is taught in the fall of even years. ASTR 475 is taught in the fall of odd years. Student typically either take ASTR 373 in their junior year and ASTR 475 in their senior year OR ASTR 475 in their junior year and ASTR 373 in their senior year.

-M 221 can also be counted as a technical elective.