

## Sample schedule for BS in physics (astrophysics concentration)

This sample schedule is for the case that fall of year 1 is an even year. (This distinction is necessary because some of the upper-level astronomy courses are offered every other year.)

Number of credits in parentheses.

Courses designated “Elective” are entirely at the student's discretion.

Two courses from ASTR 403, 404, 420, 480 are required. This sample schedule uses ASTR 403 and 404. As alternatives (or in addition), ASTR 420 and/or 480 could be taken in spring of year 4.

Students who complete a second major may omit either PHYS 306 or 428 and need only take one course from ASTR 403, 404, 420, 480.

PHYS 122 and 123 are not required. They are included to bring the total credit number to 120.

### Fall of Year 1 (15)

MATH 113	(4)	Calculus I
ENGL 101	(3)	Composition
Mason Core	(3)	
Mason Core	(3)	
PHYS 122	(1)	Inside Relativity
PHYS 123	(1)	Inside the Quantum World

### Spring of Year 1 (15)

ASTR 124	(1)	Introduction to Observational Astronomy
MATH 114	(4)	Calculus II
PHYS 160	(3)	Physics I
PHYS 161	(1)	Physics I lab
Mason Core	(3)	
Mason Core	(3)	

### Fall of Year 2 (16)

MATH 213	(3)	Calculus III
PHYS 260	(3)	Physics II
PHYS 261	(1)	Physics II lab
PHYS 251	(3)	Intro to Computer Techniques in Physics (satisfies Mason Core IT)
Mason Core	(3)	
Mason Core	(3)	

### **Spring of Year 2 (15)**

MATH 214 (3) Differential Equations  
PHYS 308 (3) Modern Physics  
ASTR 210 (3) Introduction to Astrophysics  
PHYS 307 (3) Thermal Physics  
Elective (3)

### **Fall of Year 3 (15)**

ASTR 328 (3) Stars  
PHYS 301 (3) Analytical Methods of Physics  
PHYS 303 (3) Classical Mechanics  
PHYS 305 (3) Electromagnetic Theory  
PHYS 311 (3) Instrumentation

### **Spring of Year 3 (15)**

ASTR 404 (3) Galaxies and Cosmology  
PHYS 306 (3) Wave Motion and Electromagnetic Radiation  
PHYS 312 (3) Waves and Optics  
PHYS 402 (3) Introduction to Quantum Mechanics and Atomic Physics  
ENGL 302 (3) Advanced Composition

### **Fall of Year 4 (14)**

ASTR 401 (3) Computer Simulation in Astronomy  
ASTR 402 (4) Methods of Observational Astronomy  
ASTR 403 (3) Planetary Science  
ASTR 408 (3) Senior Research  
PHYS 416 (1) Special Topics in Modern Physics

### **Spring of Year 4 (15)**

PHYS 428 (3) Relativity  
Elective (3)  
Elective (3)  
Elective (3)  
Elective (3)