

# Astronomy and Astrophysics

## Freshman Year First Semester

Item #	Title	Credits
PHYS 013	Phys for Sci & Engr Lec I	3
PHYS 023	Phys for Sci & Engr Lab I	1
MATH 156	Calculus I	4
ENGW 104	Writing, Literacy, and Discourse	3
	World Language and Culture Requirement	3
FRSM 001	Freshman Seminar	1
<b>Sub-Total Credits</b>		<b>15</b>

## Freshman Year Second Semester

Item #	Title	Credits
PHYS 014	Phys for Sci & Engr Lec II	3
MATH 157	Calculus II	4
ENGW 105	Reflective Writing and Portfolios	3
	World Language and Culture Requirement	3
	Oral Communication	3
<b>Sub-Total Credits</b>		<b>17</b>

## Sophomore Year First Semester

Item #	Title	Credits
MATH 158	Calculus III	4
PHYS 015	Intro to Modern Physics	3
PHYS 025	Phys for Sci & Engr Lab III	1
	Intercultural Knowledge / World Language	3
PHYS 140	Intro to Astron. & Astrophysics I	3
	Humanities Requirement	3
<b>Sub-Total Credits</b>		<b>17</b>

## Sophomore Year Second Semester

Item #	Title	Credits
PHYS 141	Intro Astronomy & Astrophysics II	3
MATH 159	Differential Equations	4
PHYS 175	Thermodynamics	3
	African Diasporic Cluster	3
	Humanities Requirement	3
<b>Sub-Total Credits</b>		<b>17</b>

## Junior Year First Semester

Item #	Title	Credits
PHYS 182	Physical Mechanics I	3
PHYS 178	Electricity & Magnetism I	3
	Social Sciences Course	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
PHYS 088	Directed Readings for Jr. I	1
	Health Ed. Elective	1
<b>Sub-Total Credits</b>		<b>14</b>

## Junior Year Second Semester

Item #	Title	Credits
PHYS 143	Observational Astronomy	3
PHYS 145	Cosmology & Mod Astrophysics	3
	Social Science Course	3
PHYS 702	Experimental Physics I	3
PHYS 089	Directed Readings for Jrs II	1
<b>Sub-Total Credits</b>		<b>13</b>

## Senior Year First Semester

Item #	Title	Credits
PHYS 190	Quantum Physics I	3
	Concentration Elective - Physics	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	Health Ed. Elective	1
PHYS 196	Senior Thesis	1
<b>Sub-Total Credits</b>		<b>14</b>

## Senior Year Second Semester

Item #	Title	Credits
	General Elective (Options: To be determined in consultation with 3 advisor) (3)	
	General Elective (Options: To be determined in consultation with 3 advisor) (3)	
	General Elective (Options: To be determined in consultation with 3 advisor) (3)	
	Seminar or Computational Physics Elective	3
PHYS 197	Senior Thesis	1
	<b>Sub-Total Credits</b>	<b>13</b>
	<b>Total credits:</b>	<b>120</b>

## Category Descriptions

### World Language and Culture Requirement

#### Oral Communication

#### Intercultural Knowledge / World Language

### Humanities Requirement

Humanities Requirement

#### African Diasporic Cluster

African Studies Elective (Options: Courses under subject code AFST) 3

### Social Sciences Course

#### General Elective (Options: To be determined in consultation with advisor) (3)

#### Health Ed. Elective

Courses under HHPL and PHAS

### Social Science Course

### Concentration Elective - Physics

## Seminar or Computational Physics Elective