

Summary of Astronomy Requirements (All Astronomy Departments)

	Percentage Offering Class $\left[\frac{N_{offering}}{N_{dept}} \right]$	Percentage Requiring Class $\left[\frac{N_{required}}{N_{dept}} \right]$	Mean Semesters Required Overall $\left[\frac{\sum C_{required}}{N_{dept}} \right]$	Mean Semesters Required If Required $\left[\frac{\sum C_{required}}{N_{required}} \right]$
Intro. Solar System	0.750	0.600	0.453	0.755
Intro. to Stellar	0.867	0.733	0.538	0.733
Extragalactic/Cosmology	0.850	0.683	0.554	0.811
Extragalactic	0.267	0.083	0.054	0.650
Cosmology	0.317	0.050	0.042	0.833
ISM/Stellar Formation	0.750	0.417	0.285	0.683
Stellar Structure/Atmos/Evolution	0.550	0.350	0.286	0.818
Radiative Processes	0.150	0.100	0.044	0.443
Instrumentation/Data Analysis	0.867	0.483	0.612	1.267
High Energy	0.217	0.017	0.008	0.500
Galactic Structure/Dynamics	0.550	0.217	0.119	0.547
Advanced ISM (2nd Course)	0.050			
Adv Stellar Evolution (2nd Course)	0.067			
SETI/Astrobiology	0.133	0.017	0.017	1.000
Solar Physics	0.033			
Celestial Mechanics	0.117	0.050	0.042	0.833
Archeoastronomy	0.017			
Manned Space Flight	0.017			
Research/Individual Study	0.817	0.267	0.320	1.198
Topics in Astro.	0.550	0.233	0.201	0.863

Summary of Physics Requirements (All Astronomy Departments)

	Percentage Offering Class $\left[\frac{N_{offering}}{N_{dept}} \right]$	Percentage Requiring Class $\left[\frac{N_{required}}{N_{dept}} \right]$	Mean Semesters Required Overall $\left[\frac{\sum C_{required}}{N_{dept}} \right]$	Mean Semesters Required If Required $\left[\frac{\sum C_{required}}{N_{required}} \right]$
Character of Physics/Pre-Physics	0.017	0.017	0.017	1.000
Intro. Classical Mechanics	1.000	1.000	0.996	0.996
Intro. E&M	1.000	1.000	0.997	0.997
Intro. QM/Waves/Optics	0.700	0.683	0.570	0.834
Advanced Mechanics	0.883	0.567	0.629	1.110
Advanced E&M	0.950	0.633	0.822	1.298
Optics	0.800	0.550	0.468	0.851
Jr/Sr Quantum Mechanics	0.950	0.533	0.596	1.118
Plasma Physics	0.200	0.017	0.017	1.000
Fluid Mechanics	0.167	0.050	0.031	0.610
Math Methods	0.450	0.183	0.187	1.018
Atomic/Solid State	0.650	0.300	0.164	0.546
Nuclear/Particle	0.600	0.233	0.122	0.524
Electronics	0.333	0.033	0.050	1.500
Advanced Lab	0.567	0.150	0.164	1.092
Thermal/Statistical Mechanics	0.850	0.467	0.462	0.991
General Relativity	0.300	0.017	0.008	0.500
Topics	0.200	0.117	0.200	1.714

Summary of Related Requirements (All Astronomy Departments)

	Percentage Offering Class $\left[\frac{N_{offering}}{N_{dept}} \right]$	Percentage Requiring Class $\left[\frac{N_{required}}{N_{dept}} \right]$	Mean Semesters Required Overall $\left[\frac{\sum C_{required}}{N_{dept}} \right]$	Mean Semesters Required If Required $\left[\frac{\sum C_{required}}{N_{required}} \right]$
Mathematics				
Calculus	0.983	0.983	1.921	1.953
Differential Equations	0.900	0.667	0.554	0.830
Vector Calculus	0.967	0.867	0.841	0.971
Linear Algebra	0.817	0.400	0.302	0.754
PDEs	0.467	0.167	0.119	0.716
Fourier Analysis	0.033	0.017	0.004	0.250
Complex Analysis	0.350	0.050	0.043	0.860
Statistics	0.300	0.017	0.011	0.670
Geology				
Intro. Geology	0.050			
Intro. Planetary Sciences	0.333	0.083	0.083	1.000
Planetary Structure/Evolution	0.167	0.017	0.008	0.500
Planetary Radio Astronomy	0.017			
Planetary Physics	0.050			
Terrestrial/Planetary Atmospheres	0.117	0.033	0.025	0.750
Remote Sensing	0.033			
Computer Science				
General CS	0.367	0.133	0.128	0.959
Computational Physics	0.367	0.117	0.111	0.951

Summary of Astronomy Requirements (Ph.D. Granting vs. Undergraduate Departments)

	Percentage Offering Class $\left[\frac{N_{offering}}{N_{dept}} \right]$	Percentage Requiring Class $\left[\frac{N_{required}}{N_{dept}} \right]$	Mean Semesters Required $\left[\frac{\sum C_{required}}{N_{dept}} \right]$	Mean Semesters Required If Required $\left[\frac{\sum C_{required}}{N_{required}} \right]$
	PhD BS/BA	PhD BS/BA	PhD BS/BA	PhD BS/BA
Intro. Solar System	0.724 0.741	0.586 0.593	0.448 0.460	0.765 0.776
Intro. to Stellar	0.931 0.778	0.793 0.667	0.586 0.472	0.739 0.708
Extragalactic/Cosmology	0.862 0.815	0.655 0.704	0.506 0.587	0.772 0.834
Extragalactic	0.345 0.222	0.069 0.111	0.043 0.074	0.625 0.667
Cosmology	0.448 0.222	0.069 0.037	0.052 0.037	0.750 1.000
ISM/Stellar Formation	0.931 0.556	0.483 0.333	0.333 0.219	0.691 0.657
Stellar Structure/Atmos/Evolution	0.552 0.593	0.310 0.407	0.244 0.336	0.788 0.825
Radiative Processes	0.207 0.111	0.103 0.111	0.037 0.059	0.360 0.527
Instrumentation/Data Analysis	0.897 0.815	0.517 0.407	0.586 0.565	1.132 1.386
High Energy	0.310 0.148	0.037	0.019	0.500
Galactic Structure/Dynamics	0.483 0.593	0.138 0.259	0.050 0.173	0.360 0.667
Advanced ISM (2nd Course)	0.069 0.037			
Adv Stellar Evolution (2nd Course)	0.103 0.037			
SETI/Astrobiology	0.103 0.148	0.037	0.037	1.000
Solar Physics	0.034 0.037			
Celestial Mechanics	0.138 0.111	0.069 0.037	0.052 0.037	0.750 1.000
Archeoastronomy	0.037			
Manned Space Flight	0.037			
Research/Individual Study	0.793 0.815	0.207 0.259	0.196 0.315	0.945 1.214
Topics in Astro.	0.621 0.444	0.310 0.111	0.310 0.068	1.000 0.610

Summary of Physics Requirements (Ph.D. Granting vs. Undergraduate Departments)

	Percentage Offering Class $\left[\frac{N_{offering}}{N_{dept}} \right]$	Percentage Requiring Class $\left[\frac{N_{required}}{N_{dept}} \right]$	Mean Semesters Required $\left[\frac{\sum C_{required}}{N_{dept}} \right]$	Mean Semesters Required If Required $\left[\frac{\sum C_{required}}{N_{required}} \right]$
	PhD BS/BA	PhD BS/BA	PhD BS/BA	PhD BS/BA
Character of Physics/Pre-Physics	0.037	0.037	0.037	1.000
Intro. Classical Mechanics	1.000 1.000	1.000 1.000	0.966 1.029	0.966 1.029
Intro. E&M	1.000 1.000	1.000 1.000	0.989 1.004	0.989 1.004
Intro. QM/Waves/Optics	0.759 0.630	0.759 0.593	0.576 0.537	0.759 0.906
Advanced Mechanics	0.931 0.852	0.655 0.444	0.680 0.556	1.038 1.250
Advanced E&M	0.966 0.926	0.724 0.519	0.959 0.667	1.325 1.286
Optics	0.759 0.815	0.586 0.481	0.474 0.420	0.809 0.872
Jr/Sr Quantum Mechanics	0.966 0.926	0.655 0.444	0.738 0.496	1.126 1.116
Plasma Physics	0.241 0.148	0.037	0.037	1.000
Fluid Mechanics	0.207 0.111	0.103	0.063	0.610
Math Methods	0.483 0.444	0.241 0.148	0.214 0.185	0.886 1.250
Atomic/Solid State	0.621 0.667	0.241 0.333	0.103 0.179	0.429 0.537
Nuclear/Particle	0.655 0.593	0.241 0.259	0.121 0.142	0.500 0.547
Electronics	0.207 0.444	0.074	0.111	1.500
Advanced Lab	0.655 0.519	0.138 0.148	0.149 0.167	1.083 1.125
Thermal/Statistical Mechanics	0.931 0.741	0.586 0.333	0.543 0.370	0.926 1.111
General Relativity	0.276 0.296			
Topics	0.034 0.370	0.034 0.185	0.034 0.370	1.000 2.000