INTRODUCTORY REQUIREMENTS

Calculus: MATH 19A (FWS) ___ OR MATH 20A (F) ___
MATH 19B (FWS) ___ OR MATH 20B (W) ___

Vector Calculus: MATH 23A (FWS) ___ AND MATH 23B (FWS) ___

Physics: PHYS 5A/L (F) ___ + 5B/M (W) ___ + 5C/N (S) ___ + 5D (F) ___
NOTE: To declare Astrophysics as a major, PHYS 5ABC must be completed with a GPA of 2.7 or higher

Computer Programming: CMPS 5C (*) ___ OR 5J (FW) ___ OR 5P (S) ___ OR EART 119 (W) ___ OR
PHYS 115 (S) ___
*Students may also satisfy the computer programming requirement by demonstrating their knowledge of programming to a faculty member designated by the Physics department.

ADVANCED REQUIREMENTS 17 total

Modern Physics: PHYS 101A Introduction to Modern Physics I (F) ___
PHYS 101B Introduction to Modern Physics II (W) ___

Mechanics: PHYS 105 Mechanics (F) ___

Electricity/Magnetism/Optics: PHYS 110A Electricity, Magnetism, and Optics (W) ___
PHYS 110B Electricity, Magnetism, and Optics (S) ___

Thermodynamics: PHYS 112 Thermodynamics and Statistical Mechanics (W) ___

Math Methods: PHYS 116A Mathematical Methods in Physics (W) ___
PHYS 116B Mathematical Methods in Physics (S) ___
PHYS 116C Mathematical Methods in Physics (F) ___

Quantum Mechanics: PHYS 139A Quantum Mechanics (S) ___

Electives: THREE from the following...
ASTR 111 Order-of-Magnitude Astrophysics (*) ___
ASTR 112 Physics of Stars (S) ___
ASTR 113 Introduction to Cosmology (F) ___
ASTR 117 High Energy Astrophysics (*) ___
ASTR 118 Physics of Planetary Systems (W) ___
ASTR 171 General Relativity, Black Holes, and Cosmology (F) ___
ASTR 257 Modern Astronomical Techniques (*) ___
PHYS 129 Nuclear and Particle Astrophysics (W) ___

Laboratories: PHYS 133 Intermediate Laboratory (FW) ___
ASTR 135 Astrophysics Advanced Laboratory: ASTR 135A (F) ___ + ASTR 135B (W) ___ OR
PHYS 136 Advanced Astronomy Laboratory (S) ___

COMPREHENSIVE REQUIREMENTS

PHYS 182 Scientific Communication for Physicists (FW) ___
Senior Thesis on an astronomy-related topic ___

Note: Courses appearing more than one category may fulfill only one requirement.

Disciplinary Com or Students satisfy this requirement by successfully completing Physics 182 and
Requirement (DC) the senior thesis. The DC requirement MUST be completed at UCSC.