Astronomy & Astrophysics Ph.D.

What can students expect in their first two years in the Astronomy and Astrophysics Graduate Program?

Seven required and four elective quarter-long courses in astronomy and astrophysics, one quarter of independent study on which to base a talk given to the department, and to be lead author on a paper submitted to a refereed journal.

Do you have any diversity fellowships or other opportunities specific to your program?
Applicants will be considered for the following special fellowships during our admissions process: The Bachmann Graduate Fellowship, NEXSI Graduate Fellowship (Next Generation Telescopes Science Institute), Osterbrock Fellowships for future leaders in astronomy and astrophysics, and TASC (Theoritical Astrophysics Santa Cruz) International Graduate Fellowships.

What type of support do first-year graduate students in your program receive?
The Astronomy and Astrophysics Department supports graduate students with Graduate Student Researcher (GSR) and Teaching Assistant (TA) positions. Students are strongly encouraged to secure independent support during their entire academic career.

When are graduate applications due for your program?
January 5

Who can I contact for more information?
Maria Sliwinski, Graduate Student Adviser
(831) 459-2844, sliwinsk@ucsc.edu

State-of-the-art computer systems have been instrumental in making UC Santa Cruz one of the world's leading centers for computational astrophysics and planetary science. A new supercomputer recently installed on campus provides an order of magnitude improvement in the ability of researchers to address fundamental questions in cosmology and astrophysics.

Astronomy & Astrophysics Faculty

Michael Bolte: Extremely Metal-Poor Stars, White Dwarfs and Supernovae.
Jean P Brodie: Galaxy formation and chemical evolution and globular star clusters as fossil tracers of galaxy history.
Jonathan Fortney: Modeling planetary atmospheres, interiors, and thermal evolution.
Puragra (Raja) GuhaThakurta: Formation and evolution of galaxies.
Garth Illingworth: Understanding when and how galaxies formed: structure, kinematics, and stellar populations of nearby elliptical and SO galaxies with the goal of inferring how they were built up in the distant past ("galaxy archeology").
Mark Krumholz: Star formation and the interstellar medium including what processes control the formation of the most massive stars, how long do star-forming clouds live, and what ultimately destroys them, using a mixture of analytic investigations and numerical simulations.
Gregory Laughlin: Detection and characterization of extrasolar planets and planet-forming environments.
Douglas N C Lin: Theory of planetary formation and evolution, including first light and the dawn of galaxies and the formation and evolution of massive black holes.
Bruce H Margon: High energy astrophysics, x-ray astronomy, close binary systems, digital sky surveys.
Claire E Max: The design and implementation of new adaptive optics systems, and using these new systems to study black holes in the cores of nearby galaxies.
Jason X Prochaska: Nature of gas both within and outside of galaxies, primarily during the first few billion years of the universe.
Enrico J Ramirez-Ruiz: Violent universe with an emphasis on stellar explosions, gamma-ray bursts and accretion phenomena.
Constance M Rockosi: Milky Way galaxy to find out how and why it evolved to its present state.
Graeme Smith: Properties of red giant stars within the Milky Way galaxy: their physical evolution, their chromospheric activity and mass loss, and what they can tell us about the chemical enrichment history of the Galaxy.
Steven S Vogt: Detection and characterization of planets around nearby stars.
Stanford Woosley: The origin of the elements and the death of massive stars.

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