What can first-year students expect in the Physics Graduate Program?
In the first year of study, Ph.D. students are expected to take two core graduate-level courses per quarter, including the courses required for the Ph.D. degree and other courses specific to the student’s field of interest. All first-year students also take 205, Introduction to Research. All graduate students also attend a weekly colloquium, 292. Each student has a faculty adviser who helps to determine which courses are most appropriate, taking into account the student’s background and interests.

Do you have any diversity fellowships or other opportunities specific to your program?
Newly admitted students are nominated by the department’s faculty admissions committee for several competitive fellowships: Eugene Cota Robles Fellowships, Tuition Fellowships, Regents Fellowships, Chancellor’s Fellowships.

What salary (on top of tuition and fees) do first-year Graduate Student Researchers in your program earn?
The Physics Department supports graduate students with Graduate Student Research (GSR) and Teaching Assistant (TA) positions. Students are also encouraged to secure independent support during their academic career.

When are graduate applications due for your program?
January 15th.

Who can I contact for more information?
Graduate Advisor (831) 459-4122
gradadvisor@physics.ucsc.edu

ANTHONY AGUIRRE, associate professor of physics, Aguirre and collaborators have assembled the most detailed and complete census of the abundance of several heavy elements in the inter-galactic medium at high-redshift.
Anthony N Aguirre Cosmological inflation and eternal inflation, heavy-element enrichment of the intergalactic medium, and other topics including, dark matter and population III stars, intergalactic dust, and black holes (possibly exploding ones).

Thomas Banks (Emeritus) Theoretical elementary particle physics, cosmology and superstring/M Theory.

David Belanger Ordering process in materials, both pure and random.

Frank Bridges (Emeritus) Structural aspects of condensed matter systems

George Brown (Emeritus) Thin-film, solution deposited novel semiconducting films, energy related research including photovoltaics, solid-state lighting, and luminescent solar concentrators.

Joshua Deutsch Avalanches in magnetic systems and polymers in a vacuum.

Michael Dine Questions left unanswered by the Standard Model including the origin of the generation structure of quarks and leptons, and questions of early universe cosmology, such as the nature of the dark matter.

Howard Haber Exploration of new theoretical directions beyond the currently accepted Standard Model of particle physics.

Michael Hance Experimental particle physics at the Large Hadron Collider

Tesla E. Jeltema Observational cosmology and particle astrophysics, including constraints on the nature of dark matter and dark energy and studies of the evolution of galaxies.

Robert P Johnson Experimental particle physics, high-energy astrophysics, medical instrumentation.

David Lederman Fundamental properties of materials in reduced dimensions.

Onuttom Narayan Phenomena occurring only in systems not in thermal equilibrium.

Michael Nauenberg (Emeritus) Theoretical physics; history of physics.

Jason Nielsen Experimental particle physics, new phenomena in high-energy hadron-hadron collisions, semiconductor tracking detector development.

Joel R Primack (Emeritus) Formation and evolution of galaxies and the nature of dark matter.

Stefano Profumo Astro-particle Physics, and Theoretical High Energy Physics

Arthur Ramirez Experimental properties of condensed matter

Steven M Ritz Particle physics and high-energy astrophysics, director of the Santa Cruz Institute for Particle Physics

Zack Schlesinger Physics of Correlated Electron Systems

Bruce A Schumm Experimental particle physics, including bottom quark physics at the SLAC B Factory, and planning and R&D for the International Linear Collider.

Abraham Seiden (Emeritus) Fundamental interactions among particles and the development of detectors to study such interactions

B. Sriram Shastri Theoretical condensed matter physics.

Alexander Sher Development of experimental techniques for recording and stimulation of activity of hunderds of neurons and use of these techniques to study neural function, structure, and development.

David M Smith High-energy astrophysics; X-ray and gamma-ray detectors and instrumentation; solar, terrestrial, and planetary sources of gamma radiation.

Jairo Velasco Jr. Experimental studies of two-dimensional materials; scanning tunneling microscopy

Allan Peter Young (Emeritus) Condensed Matter Theory, numerical simulation, disordered systems, quantum computing.