What can first-year students expect in the Chemistry Graduate Program?

During Orientation, new students take the ACS attainment examinations at an advanced undergraduate level in four areas: organic chemistry, physical chemistry, inorganic chemistry and biochemistry. The results of the attainment exams are used to assess each student's background and to plan the first year's course of study.

During their first two years in residence, students take five graduate lecture courses (25 units) in broad areas or special topics. Doctoral students are required to work as teaching assistants for at least three quarters. Students join a lab and begin dissertation research in Spring quarter of their first year.

Master's students take the same diagnostic examinations (attainment exams) required of those entering the Ph.D. program. In this non-research M.S. program, students enroll for three courses per quarter for three quarters. Seven lecture courses and at least two seminars must be taken to obtain the degree. The Capstone requirement consists of a seminar on an area of current cutting edge research. The MS degree takes 3-4 quarters, but can be finished in one year if the student is well prepared.

What type of support do first-year graduate students in your program receive?

The department supports admitted first-year Ph.D. students with a combination of Teaching Assistantships (TA) and fellowships. Continuing Ph.D. students are supported with TAships or Graduate Student Researcherships (GSR), depending on the availability and student progress. MS students may also be awarded TAship depending on availability.

When are graduate applications due for your program?

December 15th

Who can I contact for more information?

Karen Meece, Graduate Program Coordinator
(831) 459-2023, kmeece@ucsc.edu

http://www.chemistry.ucsc.edu/academics/graduate/
**Biomedical**

**Ólóf Einarsdóttir** Mechanisms & dynamics of respiratory heme-copper oxidases

**Ted Holman** Lipooxygenase as a therapy target for stroke, diabetes & heart disease

**Joseph Konopelski** Synthetic organic chemistry; heterocyclic chemistry, bioorganic chemistry

**Scott Lokey** Organic chemistry; combinatorial synthesis, biotechnology, molecular cell biology

**John MacMillan** Natural products chemistry, chemical biology, structural elucidation, cancer biology, microbial natural products

**Glenn Millhauser** Structures of signaling proteins and prions studied by magnetic resonance

**Pradip Mascharak** Modeling of active sites of metalloenzymes, design of NO and CO-donors as photochemotherapeutics

**Carrie Partch** Biochemistry and biophysics, nuclear magnetic resonance spectroscopy; molecular mechanism of circadian rhythmicity

**Jevgenij Raskatov** Chemical biology, organic chemistry, molecular modeling, chemotherapy, inflammation

**Seth Rubin** Biochemistry and structural biology; mechanisms of cell cycle control

**William Scott** Structure and function of RNA, proteins, and their complexes, origin of life

**Nikolaos Sgourakis** Modeling protein complex structures from sparse experimental data

**Bakthan Singaram** Organic synthesis via boranes, bimetallic catalysis for selective reductions

**Michael Stone** Structure & dynamics of telomeres

**Materials**

**Alex Ayzner** Experimental physical chemistry; organic semiconductors; molecular spectroscopy; electron transfer dynamics; X-ray scattering

**Ilan Benjamin** Theoretical chemistry, molecular dynamics of chemical reactions in liquids and at interfaces

**Rebecca Braslau** Synthetic organic, organic free radical and designed polymer chemistry

**Shaowei Chen** Synthesis, characterization, manipulation of novel functional nanomaterials, their long-range ordered assemblies and related nanoscale electron transfer; applications in fuel cells, photovoltaics and electronic devices

**Yat Li** Design, synthesis, assembly and engineering of energy materials

**Scott Oliver** Cationic inorganic materials for environmental cleanup; biomaterials; powder and single crystal X-ray diffraction

**Yuan Ping** Theoretical and computational materials chemistry; solar energy conversion; electronic, optical and carrier transport properties of transition metal oxides and nanomaterials; heterogeneous catalysts; solid/liquid interfaces

**Jin Zhang** Nanomaterials for energy and biomedicine, ultrafast laser spectroscopy