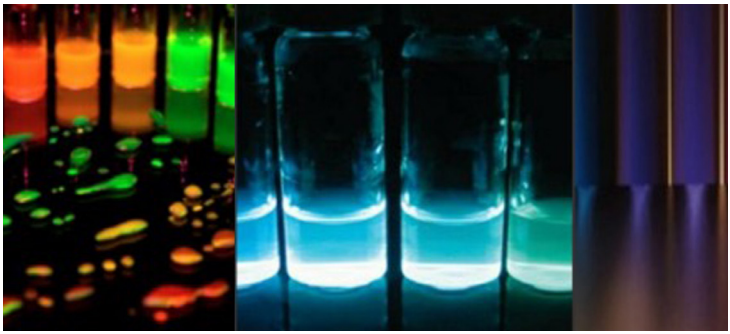
Chemistry Ph.D., M.S.

What can first-year students expect in the Chemistry Graduate Program?
New students take standardized American Chemical Society "attainment" exams. The standard course load includes lecture courses, seminars, research courses and independent studies. Doctoral students take five graduate lecture courses (25 units) in in their specialization in the first two years. Doctoral students are required to work as Teaching Assistants for at least three quarters. Organic students take a series of "cumulative" exams based on current research publications. Students join a lab and begin dissertation research in Spring quarter of their first year. Coursework MS students take seven lecture courses, which must include representatives from at least three of the four chemistry sub-disciplines. 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.

Do you have any diversity fellowships or other opportunities specific to your program?
New students are nominated for several competitive fellowships: Eugene Cota Robles Fellowships, Tuition Fellowships, Regents Fellowships, Chancellor's Fellowships.



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?
Janet Jones, Graduate Program Coordinator
(831) 459-2023, jajones@ucsc.edu

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

Chemistry & Biochemistry Faculty

Alex Ayzner Organic semiconductors; energy and electron transfer dynamics; conjugated polymer physics; supramolecular assembly; charge transport in organic thin films

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

Rebecca Braslau Synthetic organic chemistry: new synthetic methodologies using free radicals; nitroxides, nitroxide mediated "living" polymerizations: design and functionalization of tailored polymers for biomedical applications and nanotechnology, profluorescent nitroxides as sensors, synthetically modified polymers, development of non-migratory plasticizers

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

Ólöf Einarsdóttir Time-resolved spectroscopy, biophysics and bioenergetics, ligand binding and electron transfer dynamics of redox metalloproteins, heme-copper oxidases, proton translocation

Theodore Holman Biological chemistry, bioinorganic chemistry, enzymology, inhibitor design and drug discovery

David S. Kliger Time-resolved laser spectroscopy, biophysics, studies of visual transduction, protein function, and protein folding

Yat Li Materials chemistry, nanomaterials, energy conversion and storage

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

Pradip K. Mascharak Bioinorganic chemistry, design of antitumor drugs, modeling of active sites of metalloenzymes, design of catalysts for hydrocarbon oxidation, studies on intermediates in non-heme oxygenase chemistry, design of NO-donors for photodynamic therapy

Glenn L. Millhauser Electron spin resonance; nuclear magnetic resonance, melanocortin receptor signaling, agouti and agouti-related proteins, prions, solid phase protein synthesis

Scott Oliver Materials chemistry, microporous materials, polymer templating, self-assembled monolayers for thin film devices

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

Yuan Ping Theoretical chemistry, materials chemistry, solar energy conversion, electronic structure, optical and catalytic properties of transition metal oxides and interfaces

Jevgenij Raskatov Organic synthesis, NMR, molecular modeling, biophysical characterization, molecular biology assays

Seth Rubin Biochemistry and biophysical chemistry; molecular mechanisms of cell cycle regulation, nuclear magnetic resonance, x-ray crystallography

William G. Scott Three-dimensional atomic structure and function of ribozymes, enzymes, and RNA-protein complexes, static and time-resolved X-ray crystallography, development of structure-based anti-viral agents, RNA evolution, origin of catalysis, and the origin of life

Nikolaos Sgourakis Modeling protein complexes from sparse NMR data, Hybrid methods in Structural Biology, Antigen processing and presentation, Viral Immune regulation mechanisms

Bakthan Singaram Organic synthesis, organoborane chemistry, heterocyclic chemistry, organometallic chemistry, asymmetric synthesis, biosensors, and natural products chemistry

Michael Stone Single-molecule Biophysics and Enzymology; Structure, function, and assembly of the telomerase ribonucleoprotein, Fluorescence Resonance Energy Transfer (FRET), optical/magnetic trapping, sub-diffraction optical imaging of telomeres and the nucleus

Jin Z. Zhang Design, synthesis, characterization and application of nanomaterials, including semiconductor, metal, and metal oxides; femtosecond laser and optical spectroscopy; ultrafast dynamics in condensed phases and at interfaces; solar energy conversion and hydrogen generation and storage; cancer biomarker detection

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