

DEPARTMENT OF CHEMISTRY

An understanding of chemistry is critical to an understanding of life and its associated activities. Chemistry and chemical principles profoundly influence the way we live, communicate, and interact with one another, so it is little wonder that a strong background in chemistry provides a solid foundation for a variety of careers of major importance in the twenty-first century. Chemistry is uniquely positioned at the crossroad between the biological and physical sciences. By exploiting their understanding of both realms, chemists and other professionals with strong backgrounds in chemistry have made, and continue to make, major contributions to improve the human condition. Major technological and biological discoveries almost always depend on a fundamental understanding of chemistry and the pursuit of these discoveries, as a way to improve the world in which we live, drives those who seek to be a part of the process.

The Department of Chemistry offers coursework and research in all the major areas of chemistry, organized into programs leading to the degrees of Bachelor of Arts and Bachelor of Science. Both degree programs are suitable as terminal degree programs as well as for preparation for more advanced study in chemistry and related areas or as preparation for many professional programs in a variety of career fields. The BS program is more rigorous with respect to required mathematics and chemistry courses. It is particularly appropriate for those students who plan a career in the chemical industry or who intend to pursue advanced degrees in chemistry, biochemistry, chemical physics or forensics. An attractive number of free electives in this degree program allows students to take courses in interdisciplinary focus areas. The BA program offers the greatest degree of flexibility for students who see chemistry as a springboard into a related career field such as medicine, pharmacy, law, science writing, teaching or business for example. Chemistry majors are counseled by PhD chemistry faculty advisors fully familiar with the many options available in the chemistry and other departments, so as to optimize each student's program of study to meet individual needs. The Department of Chemistry (<https://www.chem.tamu.edu/>) website provides additional information about the degree plans, advising, and career opportunities for chemistry majors.

Although students may choose a variety of electives and/or minors in either the BA or BS degree programs, the following chemistry tracks have been developed to guide students in choosing electives.

Chemistry Tracks

In addition to the traditional BS degree (which allows for optional minors) and the traditional BA degree (minor required), the Department of Chemistry offers six tracks to guide students in their selection of electives for particular career paths in biological chemistry, environmental chemistry, materials chemistry, chemical education, medicine, dentistry and pharmacy. A traditional minor requires that all minor courses must be taken from the same department and approved by the department granting the minor. These tracks provide the student an opportunity to replace a traditional minor with a broad spectrum of elective courses focused, not in a single department, but in an area of emphasis. A list of the recommended elective courses for each track may be obtained from the Office of the Undergraduate Advisor in Room 104 Chemistry Building or from the Department of Chemistry (<https://www.chem.tamu.edu/>) website.

Cooperative Education Program in Chemistry

Under suitable circumstances, chemistry majors may participate in a cooperative education program in which the student alternates periods of attendance at the University with periods of employment in industry. This year-round cooperative program of college study and industrial experience is educationally enriching and meaningful, and also has the benefit of providing substantial financial assistance to the student without unduly prolonging the completion of the BS or BA degree program.

Faculty

Al-Hashimi, Mohammed, Research Professor
Chemistry
PHD, Queen Mary Westfield College, University of London, 2007

Altemose, Alicia, Lecturer
Chemistry
PHD, Penn State University, 2020

Altman, Alison, Assistant Professor
Chemistry
PHD, University of California, Berkeley, 2017

Baker, Lane, Professor
Chemistry
PHD, Texas A&M University, 2001
PHD, Texas A&M University, 2001

Banerjee, Sarbajit, Professor
Chemistry
PHD, State University of New York at Stony Brook, 2004

Barondeau, David P, Associate Professor
Chemistry
PHD, Texas A&M University, 1996

Batteas, James D, Professor
Chemistry
PHD, University of California at Berkeley, 1995

Bazzi, Hassan S, Professor
Chemistry
PHD, McGill University, 2003

Begley, Tadhg P, University Distinguished Professor
Chemistry
PHD, California Institute of Technology, 1983

Bengali, Ashfaq A, Professor
Chemistry
PHD, University of Minnesota, 1992

Bergbreiter, David E, Regents Professor
Chemistry
PHD, Massachusetts Institute of Technology, 1974

Bethel, Ryan D, Senior Lecturer
Chemistry
PHD, Texas A&M University, 2014

Bluemel, Janet F, Professor
Chemistry
PHD, Technical University of Munich, Germany, 1989

Brown, Lawrence S, Instructional Professor
Chemistry
PHD, Princeton University, 1986

Burgess, Kevin, Professor
Chemistry
PHD, The University of Cambridge, 1983

Cai, Yuguang, Instructional Associate Professor
Chemistry
PHD, Princeton University, 2003

Collins, Daniel P, Instructional Associate Professor
Chemistry
PHD, University of South Carolina, 2012

Darensbourg, Donald J, Distinguished Professor
Chemistry
PHD, University of Illinois, 1968
PHD, University of Illinois at Urbana-Campaign, 1968

Darensbourg, Marcetta, Distinguished Professor
Chemistry
PHD, University of Illinois at Urbana-Campaign, 1967

Dunbar, Kim R, Distinguished Professor
Chemistry
PHD, Purdue University, 1984

Edwards, Joshua, Instructional Assistant Professor
Chemistry
PHD, University of Utah, 2022

Fang, Lei, Professor
Chemistry
PHD, Northwestern University, 2010

Folden III, Charles M, Professor
Chemistry
PHD, University of California at Berkeley, 2004

Gabbai, Francois P, University Distinguished Professor
Chemistry
PHD, Technische Universitat Munchen, Germany, 1999

Gaede, Holly C, Instructional Professor
Chemistry
PHD, University of California at Berkeley, 1995

Gladysz, John A, Distinguished Professor
Chemistry
PHD, Stanford University, 1974

Goodey, Joanna R, Instructional Professor
Chemistry
PHD, University of Houston, 2001

Gutierrez Santacruz, Osvaldo, Associate Professor
Chemistry
PHD, University of California- Davis, 2012
PHD, University of California-Davis, 2012

Hall, Michael B, Professor
Chemistry
PHD, University of Wisconsin, Madison, 1971

Hilty, Christian B, Professor
Chemistry
PHD, Swiss Federal Institute of Technology Zurich, 2004

Laganowsky, Arthur D, Associate Professor
Chemistry
PHD, University of California Los Angeles, 2011

Lee, Edward, Senior Lecturer
Chemistry
PHD, University of Virginia at Charlottesville, 2011

Lim, Soon Mi, Instructional Associate Professor
Chemistry
PHD, Texas A&M University, 2006

Lindahl, Paul A, Professor
Chemistry
PHD, Massachusetts Institute of Technology, 1985

Liu, Wenshe, Professor
Chemistry
PHD, University of California at Davis, 2005

Madrahimov, Sherzod T, Associate Professor
Chemistry
PHD, University of Illinois, 2012

Martinez, Zachary, Instructional Assistant Professor
Chemistry
PHD, Texas A&M University, 2022

Mawk, Elmo J, Instructional Associate Professor
Chemistry
PHD, Texas A&M University, 1999

McCartney, Stephanie A, Instructional Associate Professor
Chemistry
PHD, George Washington University, 2009

Michaudel, Quentin, Assistant Professor
Chemistry
PHD, The Scripps Research Institute, 2015

Mullen, Christine A, Senior Lecturer
Chemistry
PHD, University of California at San Diego, 2000

Nippe, Michael, Associate Professor
Chemistry
PHD, University of Wisconsin, Madison, 2011

North, Simon W, Professor
Chemistry
PHD, University of California at Berkeley, 1995

Ozerov, Oleg V, Professor
Chemistry
PHD, University of Kentucky, 2000

Pennington, James D, Instructional Associate Professor
Chemistry
PHD, University of Michigan, 1998

Pentzer, Emily, Associate Professor
Chemistry
PHD, Northwestern University, 2010

Ponnamperuma, Krishan, Senior Lecturer
Chemistry
PHD, University of Cambridge, UK, 1992

Powers, David C, Professor
Chemistry
PHD, Harvard University, 2012

Powers, Tamara M, Instructional Associate Professor
Chemistry
PHD, Harvard University, 2013

Raushel, Frank M, Distinguished Professor
Chemistry
PHD, University of Wisconsin, Madison, 1976

Russell, David H, Professor
Chemistry
PHD, University of Nebraska at Lincoln, 1978

San Pedro, Joanna Maria N, Senior Lecturer
Chemistry
PHD, Johns Hopkins University, 2014

Santander, Patricio J, Senior Lecturer
Chemistry
PHD, Texas A&M University, 1987

Schaefer, Amber J, Instructional Associate Professor
Chemistry
PHD, Rice University, 2007

Schweikert, Emile A, Professor
Chemistry
PHD, Universite de Paris, France, 1964

Sczepanski, Jonathan T, Associate Professor
Chemistry
PHD, The Johns Hopkins University, 2010

Serrano, Catherine M, Lecturer
Chemistry
PHD, University of Utah, 2015

Sheldon, Matthew T, Associate Professor
Chemistry
PHD, University of California at Berkeley, 2010

Singleton, Daniel A, Professor
Chemistry
PHD, University of Minnesota, 1986

Son, Dong H, Professor
Chemistry
PHD, The University of Texas at Austin, 2002

Songok, Abigael, Lecturer
Chemistry
PHD, Louisiana State University, 2018

Tabor, Daniel, Assistant Professor
Chemistry
PHD, University of Wisconsin, Madison, 2016

Thomas, Andy, Assistant Professor
Chemistry
PHD, University of Illinois at Urbana - Champaign, 2017

Waas, Jack R, Senior Lecturer
Chemistry
PHD, University of Michigan, 1997

Watanabe, Coran M, Professor
Chemistry
PHD, John Hopkins University, 1999

Weitzel, Alison, Professor
Chemistry
PHD, Indiana University, Bloomington, 2009

Weitzel, Christopher, Instructional Associate Professor
Chemistry
PHD, Indiana University, Bloomington, 2009
PHD, Indiana University-Bloomington, 2009

Wooley, Karen L, University Distinguished Professor
Chemistry
PHD, Cornell University, 1993

Xu, Shiqing, Assistant Professor
Chemistry
PHD, Fudan University, 2009

Yan, Xin, Assistant Professor
Chemistry
PHD, Purdue University, 2015

Yennello, Sherry J, Professor
Chemistry
PHD, Indiana University, 1990

Zhou, Hongcai J, Professor
Chemistry
PHD, Texas A&M University, 2000

deGruyter, Justine, Lecturer
Chemistry
PHD, Scripps Research, 2019

Majors

- Bachelor of Arts in Chemistry (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/ba/>)
- Bachelor of Arts in Chemistry, Biological Chemistry or Medical, Dental, Pharmacy School Track (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/ba-biological-chemistry-medical-dental-pharmacy-track/>)
- Bachelor of Arts in Chemistry, Chemical Education Track (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/ba-chemical-education-track/>)

- Bachelor of Arts in Chemistry, Environmental Chemistry Track (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/ba-environmental-chemistry-track/>)
- Bachelor of Science in Chemistry (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/bs/>)
- Bachelor of Science in Chemistry, Biological Chemistry Track (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/bs-biological-chemistry-track/>)
- Bachelor of Science in Chemistry, Environmental Chemistry Track (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/bs-environmental-chemistry-track/>)
- Bachelor of Science in Chemistry, Materials Chemistry Track (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/bs-materials-chemistry-track/>)
- Bachelor of Science in Chemistry and Master of Science in Chemistry, 5-Year Degree Program (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/bs-ms/>)

Minors

- Chemistry Minor (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/chemistry/minor/>)