

Chemistry

The Department of Chemistry offers a **PhD in Chemistry**, with research specializations available in biological, organic, inorganic, physical, and nuclear chemistry. Doctoral students often work at the interface of two or more subfields of chemistry. They may also work at the interface of different scientific disciplines. Lab assignments are therefore made according to each student's research project. Chemistry students may work in a lab outside the department or alongside students from other departments in a chemistry lab.

The department's research strengths in each subfield of chemistry are as follows:

- Biological: biophysical, bioorganic, bioinorganic, biochemistry
- Organic: synthetic, organometallic, bioorganic, physical organic, asymmetric catalysis
- Inorganic: coordination, organometallic, materials, bioinorganic, main group
- Physical: computational, laser spectroscopy, theoretical, magnetic resonance
- Interdisciplinary: biophysical, physical organic, materials
- Nuclear and radiochemistry: stability of nuclei, radioisotopes for medical studies

Washington University's graduate student stipends are in the top 25% of stipends at similar universities, and St. Louis has a low cost of living. The department has an excellent record of placing its graduates in a wide variety of jobs: academic, industrial, governmental, legal, consulting, writing/editing, and entrepreneurial.

Contact: Barbara Tessmer
Phone: 314-935-7316
Email: barbara22@wustl.edu
Website: <http://www.chemistry.wustl.edu/graduate>

Faculty

Chair

Jennifer Heemstra (<https://chemistry.wustl.edu/people/jennifer-heemstra/>)

Charles Allen Thomas Professor
PhD, University of Illinois, Urbana-Champaign

Professor and Chancellor Emeritus

Mark Wrighton (<https://chemistry.wustl.edu/people/mark-stephen-wrighton/>)

James and Mary Wertsch Distinguished University Professor
PhD, California Institute of Technology

Endowed Professor

Gary J. Patti (<https://chemistry.wustl.edu/people/gary-patti/>)

Michael and Tana Powell Professor of Chemistry
PhD, Washington University

Professors

John R. Bleeke (<https://chemistry.wustl.edu/people/john-bleeke/>)

PhD, Cornell University

Michael L. Gross (<https://chemistry.wustl.edu/people/michael-l-gross/>)

PhD, University of Minnesota

Sophia E. Hayes (<https://chemistry.wustl.edu/people/sophia-e-hayes/>)

PhD, University of California, Santa Barbara

J. Dewey Holten (<https://chemistry.wustl.edu/people/dewey-holten/>)

PhD, University of Washington

Richard A. Loomis (<https://chemistry.wustl.edu/people/richard-loomis/>)

PhD, University of Pennsylvania

Kevin D. Moeller (<https://chemistry.wustl.edu/people/kevin-moeller/>)

PhD, University of California, Santa Barbara

Jay Ponder (<https://chemistry.wustl.edu/people/jay-ponder/>)

PhD, Harvard University

Lee G. Sobotka (<https://chemistry.wustl.edu/people/lee-sobotka/>)

PhD, University of California, Berkeley

John-Stephen Taylor (<https://chemistry.wustl.edu/people/john-stephen-taylor/>)

PhD, Columbia University

Associate Professors

Jonathan Barnes (<https://chemistry.wustl.edu/people/jonathan-barnes/>)

PhD, Northwestern University

Vladimir B. Birman (<https://chemistry.wustl.edu/people/vladimir-birman/>)

PhD, University of Chicago

Richard Mabbs (<https://chemistry.wustl.edu/people/richard-mabbs/>)

PhD, University of Nottingham (UK)

Bryce Sadtler (<https://chemistry.wustl.edu/people/bryce-sadtler/>)

PhD, University of California, Berkeley

Timothy Wencewicz (<https://chemistry.wustl.edu/people/timothy-wencewicz/>)

PhD, University of Notre Dame

Assistant Professors

Joseph Fournier (<https://chemistry.wustl.edu/people/joseph-fournier/>)

PhD, Yale University

Kade Head-Marsden (<https://chemistry.wustl.edu/people/kade-head-marsden/>)

PhD, University of Chicago

Meredith Jackrel (<https://chemistry.wustl.edu/people/meredith-jackrel/>)

PhD, Yale University

Courtney Reichhardt (<https://chemistry.wustl.edu/people/courtney-reichhardt/>)

PhD, Stanford University

Robert Wexler (<https://chemistry.wustl.edu/people/robert-wexler/>)

PhD, University of Pennsylvania

Teaching Professor

Megan Daschbach (<https://chemistry.wustl.edu/people/megan-daschbach/>)

PhD, Washington University

Senior Lecturers

Rong Chen (<https://chemistry.wustl.edu/people/rong-chen/>)

PhD, University of Southern California

Maria de la Cruz (<https://chemistry.wustl.edu/people/maria-de-la-cruz/>)

PhD, University of Missouri, Saint Louis

Julie Hamdi (<https://chemistry.wustl.edu/people/julie-hamdi/>)

PhD, University of California, Los Angeles

John Heemstra (<https://chemistry.wustl.edu/people/john-heemstra/>)

PhD, University of Illinois, Urbana-Champaign

Jia Luo (<https://chemistry.wustl.edu/people/jia-luo/>)

PhD, Washington University

Bryn Lutes (<https://chemistry.wustl.edu/people/bryn-lutes/>)

PhD, Washington University

Lecturer

Thomas Bakupog (<https://chemistry.wustl.edu/people/thomas-bakupog/>)

PhD, University of Wyoming, Laramie

Joint Professor

Richard W. Gross (<https://chemistry.wustl.edu/people/richard-w-gross/>)

PhD, Washington University

(Internal Medicine)

Degree Requirements

PhD in Chemistry

Requirements:

- 72 units of graduate credit in courses and research
- Satisfactory performance on oral cumulative examinations
- Satisfactory performance in annual pre-thesis committee meetings
- Demonstration of teaching competence
- Dissertation research and preparation of dissertation
- Satisfactory performance on a final oral dissertation defense

On average, students take between five and six years to complete the PhD.

Requirements specific to Chemistry include attendance at faculty research presentations during the student's first fall semester, presenting and passing an oral examination within the first four semesters, and annual recertification in laboratory safety.

Almost all students participate in mentored teaching experiences during their first two years and must perform satisfactorily. Students must also make annual research presentations to their advisory committee, prepare a satisfactory dissertation research proposal, and pass an oral examination.