Western Michigan University’s Department of Chemistry provides graduate students with excellent opportunities to work on fundamental as well as applied research projects that cover the areas of analytical, biological, inorganic, organic and physical chemistry.

The Master of Science in Chemistry (M.S.) is designed to provide a broad background in the various fields of chemistry with a concentration in one. This program is research based and a thesis of original research is required for graduation.

The Doctor of Philosophy in Chemistry (Ph.D.) is a research degree designed for persons intending to take a leadership role in teaching or research in applied areas of environmental chemistry. There is an emphasis in environmental chemistry in this program.

The Ph.D. program takes an innovative approach, using the skills and expertise provided by the traditional areas of chemical study as the foundation for addressing chemical processes occurring in the atmosphere, biosphere, hydrosphere and lithosphere. The program is designed to offer flexibility so that a full-time student may complete the degree in four years and a non-traditional student could be accommodated around full-time employment.

Department research efforts enrich the curriculum through existing courses and independent study opportunities. Our faculty are involved in cutting-edge research focused on alternative energy, climate change, biochemical sciences and medicinal chemistry.

Points of Pride

- Research grant funding for the department has averaged more than $2 million per year over the past eight years.
- Research output—as indicated by peer-reviewed publications—has exceeded 25 per year, including contributions in the Proceedings of the National Academy of Sciences and Nature-Chemistry.
- Our programs are unique by emphasizing research in the field of environmental chemistry, allowing collaborations with national and international environmental groups and agencies.

Industry Highlights

Graduates may prepare for a career in industry, teaching or graduate study in chemistry, biochemistry, medicine and dentistry or pharmaceuticals.
Teaching, Research and Program Focus Areas

The mechanisms of action and systems through which chemical substances cycle in the environment have been the subject of research at WMU for nearly 20 years resulting in strategic national and international collaborations encouraging the development of research networks at more than 50 institutions worldwide. Students at all levels benefit from these extended research relationships building careers in emerging areas of nanotechnology and chemical biology.

Faculty research interests include:
- Chemical education
- Computational chemistry
- Environmental chemistry
- Mass spectrometry
- Medicinal chemistry
- Nanoscale science
- Protein chemistry
- Structural biology
- Supramolecular chemistry
- Synthetic organic and inorganic chemistry

The course and research offerings are structured to give a broad but thorough grounding in the elements of chemistry.

Funding

Graduate assistantships are offered to students on a competitive basis. Students on an assistantship may be assigned a teaching or a research assistantship. Students may be accepted to the M.S. and Ph.D. programs without an assistantship. The funding consideration deadline is Feb. 15, 2018.

Admission

Domestic
Applications are accepted on an ongoing basis, allowing students to begin coursework during the fall, spring and summer semesters.

International
Fall 2018: April 1, 2018
Spring 2019: Aug. 1, 2018
Summer 2019: Jan. 15, 2019

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Western Michigan University est. 1903
Offering over 100 world class advanced degree programs and holding Carnegie Foundation classification as a higher research doctoral university, the institution has consistently appeared in the U.S. News & World Report as one of America’s best national universities. Graduate students make up 21 percent of the total student body and have been awarded nearly $52 million in financial assistance. WMU enjoys a rich 60+ year history of graduate education.

Kalamazoo, Michigan
The community offers a vibrant cultural atmosphere mixed with a variety of outdoor recreational activities. The city of Kalamazoo is located midway between Detroit and Chicago and is in close proximity to the shoreline of Lake Michigan.