General Information

Department Chair: **Professor Michael M. King**
Degrees offered: MS and PhD in Chemistry, MS in Environmental Green Chemistry

PhD: 5 year average program length, 43% male, 57% female
MS: 2 year average, thesis and non-thesis options

Fields of study: Analytical Chemistry; Biochemistry; Environmental Chemistry; Geochemistry; Inorganic Chemistry; Materials Science; Organic Chemistry; Physical Chemistry

Admissions

*Admissions contact:* Cynthia Dowd, Graduate Admissions Chair, Associate Professor of Chemistry
*Phone:* (202) 994-8405
*Email:* cdowd@gwu.edu
*URL:* http://chemistry.columbian.gwu.edu/

*Admissions deadlines:*
- All Master’s applicants –
  - Fall Admission: April 1
  - Spring Admission: October 1
- PhD applicants –
  - Fall Admission: January 15 (late applications considered on a case-by-case basis)
  - Spring Admission: October 1

*Application fee:* $80

*Degree(s) required for MS/PhD in Chemistry:* BS or BA in Chemistry or equivalent

*Minimum GPA:* 3.0

*GRE required:* GRE General Required; waived for students with a MD, JD, or PhD

*Advanced GRE:* Recommended

*English Language Requirement:* TOEFL 100 for funding, 80 for admission, IELTS 6.0 (no band less than 5.0), Pearsons 53.

*Letters of recommendation:* 2 letters for PhD applicants and 1 for MS applicants

*Required courses:* General, analytical, organic, and physical chemistries, plus calculus and general physics

*Recommended courses:* Instrumental analysis, inorganic chemistry

Updated 10/02/2018
Degree Requirements

MS
Semester/quarter/trimester hours: 30 or 36 semester hours
Minimum GPA: 3.0
Residency: 3 terms
Foreign language: No
Computer language: Yes
Exams: Comprehensive: Yes; Placement: Yes; Cumulative: No
Thesis: Yes (Optional Non-Thesis Master's)
Teaching requirement: No

PhD
Semester/quarter/trimester hours: 72 semester hours
Minimum GPA: 3.0
Residency: 5 terms
Foreign language: No
Computer language: Yes
Exams: Comprehensive: No; Placement: Yes; Cumulative: Yes
Dissertation: Yes
Teaching requirement: No
Research proposal defense: Yes

Financial Information

Annual Costs
Tuition: $1710* per credit hour
*Note: George Washington University Student Association fee is $3 per credit hour

Graduate Support
Typical assistantship packages (Research and Teaching) range from $20,000 -24,500 for nine months. Note that tuition expenses are included in our assistantship packages for doctoral students. Students normally receive departmental support for the summer through an assistantship or fellowship, at a level comparable to the academic year rate previously stated. Thus, the support for the full calendar year will be approximately $29,000-$31,000.

Housing contact:
GW Housing Programs: (202) 994-2552
http://living.gwu.edu/halls/graduatehousing/
Off-Campus Student Affairs: https://offcampus.students.gwu.edu/finding-home
Research Facilities

The George Washington University, founded in 1821, is located in downtown Washington, DC, the center of the federal government and one of the leading scientific and cultural centers of the country. The Chemistry Department offers PhD and MS programs in analytical chemistry, inorganic chemistry, organic chemistry, physical chemistry, and materials science. Research fields include analytical and molecular spectroscopy; catalysis; chemical instrumentation; combustion chemistry, electrochemistry; environmental chemistry; forensic chemistry (in cooperation with the Department of Forensic Sciences); inorganic and organometallic synthesis; nanostructured materials; organic synthesis/natural products; polymer chemistry; structure and reactivity studies; surface, interface and materials science; theoretical chemistry; trace analysis; transition metal complexes; crystallography and proteomics. Collaborative research is also conducted with faculty members from several schools at GW including the School of Engineering and Applied Science and the School of Medicine and Health Sciences.

The Department is home to 16 faculty members and approximately 50 graduate students. Thus, there is significant interaction between students and their dissertation advisors. Research is supported by all of the standard instrumentation including atomic absorption, infrared, ultraviolet/visible, nuclear magnetic resonance, and inductively-coupled plasma emission spectrometers, gas and liquid chromatographs, and mass spectrometers, including state-of-the-art ICP-MS instruments. Specialized equipment includes laser-based particle sizing equipment, ultra-high vacuum systems, MALDI mass spectrometers with UV and IR laser sources, electrospray ionization tandem mass spectrometers, XPS/Auger spectrometers, LEED, thin film deposition apparatus, scanning tunnel and atomic force microscopy, a well-equipped laser spectroscopy laboratory suite, reflectance spectroscopy, impedance spectroscopy, X-Ray Fluorescence, Transmission (TEM) and Scanning (SEM) Electron Microscopy. Crystallographic facilities include both powder diffraction and a Bruker CCD based APEX II single crystal diffractometer. The high funding level of departmental research helps to support state-of-the-art instrumentation in every lab. In addition, the majority of the faculty has cooperative research efforts with one or more of the well-equipped local government laboratories including the Food and Drug Administration (FDA), the National Institutes of Health (NIH), the National Aeronautics and Space Administration (NASA), the Naval Research Laboratory (NRL), the National Institute of Standards and Technology (NIST), the U.S. Geologic Survey (USGS), FBI Academy, the Carnegie Institution of Washington, the Smithsonian Institution and the National Science Foundation (NSF). Due to this unique scientific environment, educational opportunities are available in the Washington area which cannot be found elsewhere.