Department of Chemistry

General Information

Department of Chemistry
800 22nd St. NW, Suite 4000
Washington, DC 20052
Telephone: (202) 994-6121
Fax: (202) 994-5873
Email: gwchem@gwu.edu
URL: http://chemistry.columbian.gwu.edu/

Department Chair: Professor Michael M. King
Degrees offered: M.S., Ph.D.

Ph. D. 3 year program (5 year average) 50% male, 50 % female

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

Admissions

Admissions contact: Christopher Cahill, Professor of Chemistry
Phone: (202) 994-6959
Fax: (202) 994-5873
Email: gwchem@gwu.edu
URL: http://departments.columbian.gwu.edu/chemistry/
Admissions deadlines: Master’s applicants –
• Fall Admission: April 1
• Spring Admission: October 15
• Summer Admission: March 1

Ph.D. and Fellowship applicants –
• Fall Admission: January 5
• Spring Admission: October 15

*Note: If an international student, the Fall deadline is January 15, regardless of program
Application fees: $75
Degree(s) required: B.S. or B.A. in Chemistry or equivalent
Minimum GPA: 3.0
GRE required: Yes
Advanced GRE: Recommended

Letters of recommendation: Yes, 3 letters for Ph.D. and 1 for M.S.
Required courses: General, analytical chemistry organic and physical chemistry; calculus; general physics
Recommended courses: Instrumental analysis, inorganic chemistry
Additional admission requirements: For applicants from countries in which English is not an official language, the required minimum TOEFL score is 600. To be considered for a teaching assistantship, a minimum of 600 is required for the paper based exam, or 100 for the computer version.

Updated 4/7/2015
Estimated number of applicants 2012 – 2013: 70
Number of graduate students 2014 – 2015: 34 total: 18 male, 16 female
Pre-admission travel funds available: Yes

Degree Requirements

Master’s
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

Ph.D.
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: $1,545 per credit hour
*Note: George Washington University Association fee is $2.25 per credit hour, up to a maximum of $33.75.
Estimated living expenses: $ $21,050 for housing, food, utilities and transportation
For more information on expenses at GWU, please visit:
http://www.gwu.edu/apply/graduateprofessional/costshousingfunding

Assistance (based on 12 months)
Typical assistantship packages (Research and Teaching) range from $20,000 - 24000 for nine months. Note that
tuition expenses are included in our assistance packages bringing their value to $44,120 – 48,120. Opportunities for
summer support in the form of TA or RA positions are available at comparable rates.

Graduate housing available: Yes (limited)
Housing contact:
GW Housing Programs: (202) 994-2552
http://living.gwu.edu/halls/graduatehousing/
GradLife Off-Campus Housing: http://living.gwu.edu/halls/graduatehousing/
Research Facilities

The George Washington University, founded in 1821, is located in downtown Washington, D.C., the center of the federal government and one of the leading scientific and cultural centers of the country. The Chemistry Department offers Ph.D. and M.S. 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 the School of Engineering and Applied Science and the School of Medicine and Health Sciences.

The Department is a modest size with sixteen faculty members and approximately thirty-four 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 new Bruker CCD based APEX II single crystal diffractometer. In addition, the majority of the faculty has cooperative research efforts with one or more of the well equipped local government laboratories. As of March 2014, the department had eighteen active awards from external sponsors with aggregate budgets totaling about $5.3 million for their lifetime. The university has three main libraries. The Melvin Gelman Library has an excellent collection of monographs, and all essential science and engineering journals. Additional library capacities are available through on-line subscriptions, the local university consortium and the many local government research institutions.

Prestigious government facilities of direct relevance to chemistry in the Washington metropolitan area include 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.

Updated 4/7/2015