

# CHEMISTRY @ WAGNER

Wagner College is a competitive, four-year private college founded in 1883. The broad liberal arts curriculum is enhanced by a rich array of internship and other professional and cultural opportunities readily available in New York City.



For more information, contact the Admissions Office at (800) 221-1010 or visit our website at [www.wagner.edu](http://www.wagner.edu)

Chemistry majors may choose a concentration in either Biochemistry or Environmental Chemistry. A **common core curriculum** for all concentrations and a capstone internship ensure that all students will have a broad-based and practical understanding of chemistry. Students may also receive certification from the **American Chemical Society** by completing specific coursework and participating in comprehensive research conducted on or off-campus. **Graduates of the major** conduct research with Johns Hopkins University School of Medicine, University of Washington, and Liberty Science Center, among other institutions.

## CONCENTRATIONS

*In addition to the core requirements in the Chemistry Major, students are able to have one of the following concentrations.*

- Biochemistry
- Environmental Chemistry
- Mathematics

## AMERICAN CHEMICAL SOCIETY (ACS) CERTIFICATION

Chemistry majors can obtain American Chemical Society Certification in Chemistry. Certification requires participation in research, on or off campus, which must culminate in a comprehensive research report. Students may participate in on-campus research with a faculty member by engaging in a summer research project or enrolling in CH491 or CH492 (Research classes).

## SAMPLE CLASSES

### *Medicinal Chemistry*

A course in modern medicinal chemistry examining drug interaction with receptors, drug design and discovery, pharmacokinetics, pharmacodynamics, and formulation issues.

### *Environmental Pollution and Health*

A course addressing water and air pollution in developing countries with special focus to the emerging groundwater arsenic contamination in a number of countries.

### *Biochemistry*

An intensive course in the principles of biochemistry including the structure, biosynthesis, and metabolism of bio-macromolecules and their sub-units.

## FIRST YEAR LEARNING COMMUNITY EXAMPLES

### *Emerging Global Health Concerns*

An examination of the role of chemistry in issues affecting the health status of individuals and groups throughout the world with emphasis on the needs of vulnerable populations and equity of health care. Factors such as environment, culture, ethics, access, cost and politics as well as their impact on an individual's ability to function are explored.

### *Science: the Good, the Bad,*

### *and the Controversial*

Designed for students interested in the sciences of pre-health, this LC will focus on scientific thought and method as related to human health, pharmaceuticals, waste and pollu-

tion. The chemistry and biology behind specific issues such as industrial drug design, chemical mutagens in water, and compost and solid waste disintegration will be analyzed.

## INTERNSHIPS

Twin Lakes Wastewater Plant

INO Therapeutics

American Felt & Filter Co.

## RESEARCH TOPICS

- "Zinc Oxide Hydrothermal Crystal Growth"
- "MALDI=TOF-MS Analysis on *E. Coli* Isolates in Sunset Park"
- "Synthesis of Cyclacene"
- "Is Corn Ethanol a Renewable Energy Source/A More Efficient Method for Finding Concentration of Arsenic in Water"
- "Characterization of Proteins that Bind Inosine-Containing RNA"
- Pharmacy Research

## CONTACTS

Office: (718) 390-3125

Professor Maria Gelabert

[mgelaber@wagner.edu](mailto:mgelaber@wagner.edu)

# WAGNER COLLEGE