

# Chemistry

What can I do with this major?



## Related Career Titles

Search for potential careers/jobs in these five main sectors.

### Healthcare

Physician  
Dentist  
Optometrist  
Veterinarian

### Allied Health

Physical Therapist  
Occupational Therapist  
Pharmacist  
Medical Lab Technician

### Education

Chemistry Teacher 9-12  
College Professor  
Research Scientist  
Museum/Parks Educator

### Environmental

Environmental  
Chemist  
Hazardous Waste  
Toxicology Specialist  
Water Chemist

### Government

National Health (FDA,  
CDC, USDA, NIH)  
Public Health  
Law Enforcement  
Forensics Specialist

### Research

Clinical Lab Technologist  
Applied Research &  
Development  
Marine Chemist

### Industry

Chemical Health &  
Safety  
Chemical Technology  
Food Safety Expert  
Drug Testing/Quality  
Control  
Chemical Analyst

Regulatory Affairs  
Formulation Chemistry  
Process Chemistry  
Zymurgy  
(Beer/Winemaking)  
Technical  
Communication

### Sales/Manufacturing

Technical sales and  
marketing (chemicals,  
food, pharmaceuticals,  
cosmetics, agriculture,  
biotechnology,  
petroleum, consumer  
products)

## Professional Organizations

Affiliate yourself with groups to network and learn about the field

- ✓ *American Medical Students Association, UHD group*
- ✓ *Environmental Club, UHD group*
- ✓ *Health Professions Organization, UHD group*
- ✓ *American Chemical Society*

## Explore Career Specific Websites

[www.acs.org](http://www.acs.org) | [www.aibs.org/careers](http://www.aibs.org/careers) | [www.asm.org](http://www.asm.org) | [www.ama-assn.org](http://www.ama-assn.org) | [www.genome.gov](http://www.genome.gov) | [www.aafs.org](http://www.aafs.org)  
| [www.the-aps.org](http://www.the-aps.org) | [www.aacp.org](http://www.aacp.org) | [www.environmentalscience.org/](http://www.environmentalscience.org/) | [www.usajobs.gov](http://www.usajobs.gov) | [www.biologyjobs.com](http://www.biologyjobs.com)  
[www.aacp.org](http://www.aacp.org) | [www.sustainabilitydegrees.com](http://www.sustainabilitydegrees.com) | [www.setac.org/](http://www.setac.org/)

## Graduate School Considerations

\*Programs not offered at UHD

Master of Science in Data Analytics  
Master of Business Administration  
Master of Science in Chemistry\*  
Doctor of Dentistry\*

Master of Arts in Teaching  
Master of Public Health\*  
Doctor of Medicine\*  
Doctor of Pharmacy\*

Master of Science in Environmental Science\*  
Master of Science in Biochemistry\*  
Master of Science in Geoscience\*  
Master of Science in Chemical Engineering\*

## Community Partnerships

Research local organizations offer field experiences to students pursuing a Chemistry degree.

Memorial Hermann	BP	Texas Children's	UT Medical Branch	RiceTec	Houston Zoo
Houston Methodist Hospital	City of Houston, Health & Human Services		Houston Renewable Energy Group		
MD Anderson	Baylor College of Medicine	Lockheed Martin	Mad Science of Houston	Anheuser-Busch	
Bayou Land Conservancy	Koala Sports Medicine Center		Harris County Institute for Forensic Sciences		

## What is Chemistry?

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The Bachelor of Science degree explores identification of the substances of which matter is composed; the investigation of their properties and the ways in which they interact, combine, and change; and the use of these processes to form new substances. Students develop scientific reasoning, acquire research and laboratory skills common to modern laboratories, and effectively communicate scientific information in writing and oral presentations.

Concentrations:

- Environmental Biosciences
- Environmental Chemistry
- Forensic Sciences
- Industrial Chemistry

**Interested in discussing your  
career path possibilities?**

Visit S-402 or

Call 713-221-8980

The Career Development Center

# Waldo Black

Houston, TX ▪ 832-555-5555 ▪ wblack@email.com

## SUMMARY

Dynamic and motivated Senior Chemistry major with significant laboratory and research skills. Dependable and organized with the ability to work independently in any lab setting. Strong interest in industrial chemistry.

## EDUCATION

### **Bachelor of Science in Chemistry**

University of Houston-Downtown, Houston, TX

**GPA:** 3.7

**Awards:** Scholar's Academy Scholarship Recipient

May 2016

## RELEVANT COURSEWORK

### **Analytical Chemistry I and II**

- Explored impact of chemical processes on environmental hazards, deep sea 'black smoker' vents, early detection of cancer, high-speed DNA sequencing, bio-and chemical warfare agents and ultra-microfabricated sensors

## LABORATORY SKILLS

Wet Chemistry, GC (Gas Chromatography), TOC (Total Organic Carbon) Manual Titration, Reagent Preparation, UV-Vis Spectroscopy, Extractions, DHA analysis, Densitometer, Houston Atlas, Antek Sulfur, Metals by Atomic Absorption, Statistical Quality Control, Micro-coulometer, Analytic Balance, Hydrometer, FTIR, Hunter Color, GC-Low Ox, GC-MS, ICP, ICP-MS, Head-space GC

## RESEARCH

### **Chemistry Department Research Assistant**

University of Houston-Downtown, Houston, TX

January 2015-May 2016

- Research kinetics of attaching metalloporphyrins to self-assembled monolayers on gold electrodes
- Perform electrochemistry processes on the monolayers to improve electrical conductivity

## PRESENTATIONS

Black, Waldo. "Kinetics of Attaching Metalloporphyrins to Self-assembled Monolayers on Gold Electrodes." University of Houston-Downtown Student Research Conference, Houston, TX. 21 April 2015.

April 2015

## RELATED EXPERIENCE

### **Intern**

Texas Energy Group, Houston, TX

May 2015-August 2015

- Gathered green power purchasing data from Phoenix metropolitan utilities and compiled report
- Updated website and social media outlets to notify others of organization's mission and events
- Devised a renewable energy fact sheet which included information on renewable technologies, environmental benefits, economic impacts, and consumer education issues

### **Intern**

Shell Oil Corp., Houston, TX

May 2014-August 2014

- Collaborated with a team to develop an expanded testing method on the DC Arc Optical Emission Spectrometer to measure trace metal impurities in molybdenum metal
- Participated in the installation, operation, and maintenance of chemistry lab equipment and duties
- Installed and operated a wide variety of laboratory equipment including NMR and high-resolution lasers

## TECHNICAL SKILLS

Proficient in SPSS, DC Arc Optical Emission Microsoft (MS) Word, Excel, PowerPoint