Applied Chemistry M.S.

Introduction

In Delaware State's Applied Chemistry master's program, students develop specialized expertise and targeted preparation for careers in chemical-related industries. Designed for professional chemists and educators, and for people seeking to enter those fields, the program emphasizes current trends and technologies. Students gain mastery over laboratory processes and hardware, research frontiers, and problem-solving techniques.

Delaware State is one of the few institutions in the country to offer graduate degrees in Applied Chemistry. Our faculty, facilities, and coursework are uniquely tailored to this specialized discipline. Graduates acquire advanced knowledge that translates directly to the professional application of chemistry in the workplace.

Professional Preparation

The Master's program in Applied Chemistry enables students to demonstrate their abilities as self-directed researchers and problem-solvers. They build up highly marketable credentials that enable them to gain employment, or promotion, in industries such as

- medical research
- drug manufacturing
- renewable energy
- environmental protection and restoration
- biotechnology

Faculty

The Delaware State chemistry faculty boasts a number of accomplished researchers. Faculty members have secured major grants from the National Science Foundation, National Institute of Health, Department of Energy and other national funders to do ground-breaking research in areas such as hydrogen fuel cells, forensic chemistry, environmental chemistry, and pharmaceuticals. In addition to offering research opportunities and guidance, DSU professors help graduate students establish professional and academic networks to support their careers.

Research and Experience

Delaware State has nine chemistry research labs and three multipurpose labs, all equipped with high-end instrumentation and advanced computer technology. Students have access to equipment such as

- gas chromatographs with a variety of detectors
- a head space auto sampler for gas chromatograph
- a gas chromatograph /mass selective detector/infrared detector/computer system
- nuclear magnetic resonance spectrometers
- instrumentation for flame and flameless atomic absorption, dispersion infrared and FTIR
- ultraviolet-visible spectrophotometers

- capillary electrophoresis unit
- microwave digestion/extraction system
- high performance liquid chromatograph with data collection system
- electroanalytical system
- X-ray powder diffraction unit
- Thermal gravimetric analyzers
- Laser light scattering spectrometer

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