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B.S. in Chemistry

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Highlights

Students studying chemistry at St. Bonaventure learn in a hands-on environment that emphasizes personal interaction with faculty members who are devoted to excellent teaching in state-of-the-art teaching and research laboratory facilities.

Upper-division lecture classes are small, with fewer than 12 students per class; general and organic chemistry courses have fewer than 30 students per section. Laboratory sections are taught by faculty, rather than student assistants. Chemistry majors are strongly encouraged to begin collaborating with faculty on original research projects as early as the middle of their sophomore year, and all departmental instruments are available for majors to use in their coursework and research projects. We believe this personal approach best develops a student's understanding of chemistry.

New Facilities and Equipment

The Department of Chemistry showcases the rich history of St. Bonaventure and its vision for the future. The department is located primarily in De La Roche Hall. Dedicated in 1900, it is the oldest building in use on campus and the cornerstone of the University's historic core. The general chemistry and organic chemistry teaching laboratories are housed in the William F. Walsh Science Center. Dedicated in 2008, this building is among the newest on campus and was part of a three-year upgrade of the science facilities that also included extensive renovations to De La Roche Hall.

New instrumentation includes:

- JEOL 400-MHz nuclear magnetic resonance (NMR) spectrometer
- MBraun Unilab Glove Box
- Olis ArcOptix fluorimeter
- DeltaNu Advantage 532 Raman Spectrometer

- Finnigan LQC DECA Liquid Chromatograph-Mass Spectrometer (LC-MS)
- Multimode quad-core Xeon-based server computer
- Pine WaveNow Potentiostat/Galvanostat

Those instruments enhance current equipment holdings, including, but not limited to:

- Nicolet 670 high-resolution Fourier-Transform Infrared (FT-IR) spectrophotometer
- Finnigan Polaris-Q Gas Chromatograph - Mass Spectrometer (GC-MS)

The combination of traditional, old-school personal interaction with faculty and new, state-of-the-art facilities and instrumentation gives students the opportunity to transform themselves from seekers of knowledge to creators of knowledge.

Career Opportunities and Success Stories

Our chemistry graduates have been 100% successful in obtaining science-related jobs, entry into health professional schools, and chemistry graduate programs over the past five years. Chemistry is the foundation of many scientific fields, so our graduates are prepared for a wide variety of careers. Some of these careers include the health professions (medicine, dentistry, pharmacy, optometry), the chemical industry, University academics, high school teaching, and service in the military. In recent years, our majors have gone on to:

- Johns Hopkins PhD Chemistry program
- RIT Chemistry Graduate program
- SUNY Upstate Medical School
- LECOM Medical School
- SUNY Buffalo Ph.D. Chemistry Program
- UB School of Dentistry
- OSU School of Pharmacy
- U.S. Drug Enforcement Agency
- Johnson & Johnson



B.S. in Chemistry

Chemistry Faculty

Kappuswamy Arumugam

- Postdoctoral Scholar, University of Texas at Austin
- Ph.D., Tulane University
- M.Sc., Integrated Sciences, Pondicherry University

Courses Taught

- Organic Chemistry I & II

Research Interests

- Synthesis of several organometallic complexes/polymers that possess interesting catalytic, photophysical and anti-cancer properties
- Application of materials for catalysis, photophysical applications and as anti-cancer agents

Donna M. Brestensky

- Postdoctoral Associate, University of Minnesota
- Ph.D., Indiana University
- B.S., Allegheny College

Courses Taught

- Organic Chemistry I & II
- Mechanisms in Biological Systems
- Inquiry in the Natural World

Research Interests

- Late transition metal organometallic methodology

Jerry T. Godbout

- Postdoctoral Associate, University of Rochester
- Ph.D., Michigan State University
- B.S., University of Florida

Courses Taught

- General Chemistry I & II
- Physical Chemistry I & II

- Inquiry in the Natural World

Research Interests

- Study of intermolecular interactions via vibrational spectroscopy
- Evaluation of quantum-chemical models for description of intermolecular interactions
- Chemistry of zymurgy and oenology

David G. Hilmey

- Postdoctoral Associate, Cornell University
- Ph.D., The Ohio State University
- B.S., B.A., State University of New York at Buffalo

Courses Taught

- Organic Chemistry I & II
- Mechanisms in Biological Systems

Research Interests

- Determination of chemical products and mechanisms associated with vitamin oxidation
- Synthesis of precursors for the fabrication of well-defined graphene nanoribbons for use in materials science and electronics
- Synthesis of substrate analogs for elucidation of enzyme active site mechanisms

Larry M. Wier

- Ph.D., University of North Carolina at Chapel Hill
- B.A., State University of New York at Binghamton

Courses Taught

- General Chemistry I & II
- Analytical Chemistry
- Advanced Inorganic Chemistry
- Instrumental Analysis
- Inquiry in the Natural World