



# CHEMISTRY AND PHYSICS

**Chemistry major with standard, biochemistry, environmental science, industry/graduate school track • Chemistry minor • Biochemistry minor • Biomedical physics minor**

**Master chemical principles, theories and concepts as you learn science by doing science, working directly with practicing scientists in small classes, completing internships in the field and designing and executing undergraduate research in a state-of-the-art science center equipped with technology and instrumentation currently used in industry leading labs.**

**100%**

of our students complete an internship or undergraduate research.

## THE CLASSROOM EXPERIENCE

### Advanced instrumentation and undergraduate research

As chemistry majors study general, organic, analytical and physical chemistry, they do so in a modern science center furnished with interactive work spaces, dedicated student research labs and new, cutting-edge chromatography and spectroscopy equipment – all of which are instrumental as students begin undergraduate research as early as their first year. This opportunity, traditionally reserved for graduate level courses, helps students prepare for life post-graduation, whether they aspire to secure a lucrative job in the field or pursue an advanced degree at a prestigious graduate school. Past research topics include:

- Theoretical calculations and matrix isolation FT-IR spectroscopy
- Elucidation of the mechanism of organosulfur compounds using reaction kinetics
- Synthesis of medicinally important sulfur/nitrogen heterocycles
- Two dimensional NMR spectroscopy of biomolecules
- Ultrasound machines

[www.FranklinCollege.edu](http://www.FranklinCollege.edu)

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**THE CHEMISTRY AND PHYSICS DEPARTMENT MAINTAINS A 98 PERCENT JOB OR GRADUATE SCHOOL PLACEMENT RATE, INCLUDING A 35-YEAR MEDICAL SCHOOL ACCEPTANCE RATE OF 85 PERCENT – MORE THAN TWICE THE NATIONAL AVERAGE – AND A 100 PERCENT VETERINARY SCHOOL ACCEPTANCE RATE.**

#### OUTSIDE THE CLASSROOM

##### Internships at renowned health and science institutions

Every Franklin College chemistry major graduate has completed at least one internship, though it's possible to complete several in just four years. In the past, students have interned with:

- Eli Lilly
- Johnson Memorial Hospital
- National Science Foundation
- Physicians offices
- AIT Laboratories
- Kremers Urban Pharmaceuticals
- Sonoco Flexible Packaging
- Dow AgroSciences

#### POST-GRADUATION

##### 98 percent job or graduate school placement

The chemistry and physics department maintains a 98 percent job or graduate school placement rate, including a 35-year medical school acceptance rate of 85 percent – more than twice the national average – and a 100 percent veterinary school acceptance rate. While many Franklin College chemistry majors continue their education, pursuing professional degrees in medicine, dentistry, pharmacology and other health-related sciences, many go directly into the field working in:

- Chemical research
- Computer science
- Engineering
- Environmental analysis
- Pharmaceutical sales
- Law
- Teaching

## DEPARTMENT OVERVIEW

- **Double major:** Because of the crossover between the science disciplines, it's easy for students to double major in chemistry and physics for a more robust college résumé.
- **Pre-professional programs:** Chemistry majors preparing for graduate school often add a pre-professional program onto their major. These programs help students prepare for graduate school placement tests and application processes. Science-related pre-professional tracks include pre-dental, pre-medical, pre-medical technology, pre-occupational therapy, pre-optometry, pre-pharmacy, pre-physical therapy, pre-physician assistant, pre-podiatry and pre-veterinary.
- **Department contact information:** Read more about the program at [www.FranklinCollege.edu/chemistry](http://www.FranklinCollege.edu/chemistry) or contact department chair Arbin Thapaliya, Ph.D., directly at 317.738.8212 or [athapaliya@FranklinCollege.edu](mailto:athapaliya@FranklinCollege.edu).