

Winthrop University

DEPARTMENT OF

Chemistry, Physics, and Geology

Winthrop offers a professionally certified chemistry program approved by the American Chemical Society (ACS) with a biochemistry degree track recognized as the nation's first program accredited by the American Society of Biochemistry and Molecular Biology (ASBMB). Our entire focus is on the pursuit and dissemination of national-caliber undergraduate research through year-round student engagement in science. You'll find our class sizes are small; freshman chemistry classes are 20-36 students, instrumental/organic labs are 6-12 students and biochemistry labs max out with 8-10. This allows faculty to really get to know you and your career goals. This program has led to 57 percent of recent Winthrop chemistry and biochemistry graduates entering fully funded Ph.D. programs, medical/pharmacy/dental/veterinary schools, or master's degree programs.

Pat Owens, Ph.D.

Chair, Department of Chemistry, Physics and Geology
803/323-4925 | owensp@winthrop.edu

If you're a chemistry or biochemistry major, you'll gain extensive research experience that includes hands-on engagement in department laboratories that are well-equipped with state-of-the-art scientific instrumentation dedicated solely for undergraduate students like you for use in course work and in year-round research projects. Unlike large universities, more than 90 percent of Winthrop chemistry graduates conduct cutting-edge undergraduate research working as much as two full years with faculty mentors who have been awarded research grants totaling more than \$7 million during the past decade. These grants fund student research fellowships that make it possible for most Winthrop chemistry and biochemistry students to spend one or more summers engaged in 8-10 weeks of intensive research. These research experiences make chemistry graduates very competitive for graduate, professional health, and industrial opportunities.

Quick Facts

100

students mentored by
15 faculty and staff
make up the Winthrop
chemistry family

90%+

of Winthrop
chemistry graduates
conduct cutting-
edge undergraduate
research working with
faculty mentors

35

Winthrop chemistry
students were
awarded research
fellowship stipends
during summer 2015

Degree Programs

B.S. in Chemistry (American Chemical

Society-Certified Degrees)

- Biochemistry
(also ASBMB
accredited)
- Chemistry-Business
- Chemistry
- Engineering-Physics
- Forensic Chemistry

Pre-Professional Programs

- Pre-Medical
- Pre-Pharmacy
- Pre-Dental
- Pre-Engineering

“The research

opportunities available

to students are endless.

Faculty are willing to

bring students in their lab as

soon as possible. It's a great
way to learn.”

- 2009 Winthrop Chemistry Graduate

Co-Curricular Experiences Open To All Chemistry Majors

- Undergraduate Research
- Study Abroad
- Internships
- Service Learning
- Summer Fellowships

Extra-Curricular Activities Open To All Chemistry Majors

- Student Affiliates of the American Chemical Society Chapter
- Alpha Chi Sigma Chapter
- National Organization for the Professional Advancement of Black Chemists and Chemical Engineers Chapter

Freshman Class Schedule

ACAD 101	Introduces first-year students to the concepts, resources, and skills necessary for successful higher learning and facilitates the student's adjustment to the learning academy.
WRIT 101	Introduces students to college-level, thesis-driven, research-based writing.
CHEM 105	An introductory chemistry course for those who intend to major in the sciences.
BIOL 203/204	An overview of biology, including lab, focused on the cell, genetics, evolution, ecology, and animal behavior.
MATH 201	Limits, continuity, and the definition of the derivatives; techniques of differentiation, graphing, maximum/minimum and related rate problems; definite integrals and the fundamental theorem of calculus.

“Good relationships with the faculty, being able to **use the instruments as an undergraduate**, and being able to **do research as an undergraduate** were my most effective and **meaningful learning experiences** at Winthrop.”


- 2011 Winthrop Chemistry Graduate

Great Opportunities:

Over the past decade, 50 Winthrop chemistry graduates have matriculated into fully-funded doctoral programs that include these top schools:

Boston U	Penn State	USC (5)
Duke (5)	Georgia (2)	VCU (2)
Florida	John Hopkins (2)	Utah
St Jude Hospital	Wake Forest (3)	Iowa
UNC-Chapel Hill	Dartmouth (2)	MUSC
Pittsburgh (2)	Purdue	Harvard
Illinois-Urbana	Notre Dame (5)	UNC-G
Wisconsin	Virginia (3)	
Tennessee	Clemson (3)	

For more information: www.winthrop.edu/cas/chemistry



“Research was by far the most interesting thing I did at Winthrop. I learned and retained much more from research than any other class.”

- 2013 Winthrop Chemistry Graduate

Potential Careers In Chemistry, Physics, and Geology

Industrial Chemist
 Research Scientist
 Regional Sales Manager
 Medical School
 Environmental Engineer
 Pharmaceutical Research Scientist
 Technical Sales Account Manager
 College Chemistry Professor
 Nuclear Chemistry Specialist
 Physical Therapist
 Veterinarian
 Patent or Environmental Lawyer
 CDC Medicinal Analytical Chemist
 Field Service Engineer
 Laboratory Specialist
 Software Engineer
 Plastics / Polymer Engineer
 Quality Assurance Manager
 Forensic Crime Lab Chemist
 Petrochemicals Investment Advisor
 Nurse
 Sales Engineer
 Research and Development Manager
 Materials/Analytical Chemist
 Pharmacist
 Environmental Health Research Scientist
 Chemical Engineer
 Nuclear Energy Consultant
 Dentist
 High School AP Chemistry Teacher
 Materials Scientist
 Biotechnology Laboratory Analyst

Winthrop University
 Department of Chemistry, Physics and Geology
 Rock Hill, South Carolina, 29733
 803/323-2113 · www.winthrop.edu/cas/chemistry