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.

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

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

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

Co-Curricular Experiences Open To All Chemistry Majors
- Undergraduate Research
- Study Abroad

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

“...”

Extra-Curricular Activities Open To All Chemistry Majors
- Internships
- Service Learning
- Summer Fellowships
“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

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**Freshman Class Schedule**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACAD 101</td>
<td>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.</td>
</tr>
<tr>
<td>WRIT 101</td>
<td>Introduces students to college-level, thesis-driven, research-based writing.</td>
</tr>
<tr>
<td>CHEM 105</td>
<td>An introductory chemistry course for those who intend to major in the sciences.</td>
</tr>
<tr>
<td>BIOL 203/204</td>
<td>An overview of biology, including lab, focused on the cell, genetics, evolution, ecology, and animal behavior.</td>
</tr>
<tr>
<td>MATH 201</td>
<td>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.</td>
</tr>
</tbody>
</table>

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**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

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“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

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