Recommendations

B.S. Chemistry and Biochemistry

To learn more about making the most of your educational experiences within and beyond the classroom contact:

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PARTICIPATE

Community Service

Sites/experiences  Chemistry Outreach to K-12 Schools, American Society of Biochemistry & Molecular Biology Student Chapter, USC Science and Engineering Fair, Discovery Day, Science and Humanity Fair

Why this is important  Participating in these groups promotes the awareness and importance of Chemistry and Biochemistry as they relate to everyday life.

Global Learning

Timing for “study abroad”  Junior or Senior Year (depends on the coursework and timing).

Opportunities  USC’s Study Abroad Office

Why this is important  Science is a global language. Communicating and learning about other cultures outside of science will give a better understanding of the cultural differences and similarities that the science community shares.

Peer Leadership

Student Organization(s)  The American Chemical Society, The American Society of Biochemistry & Molecular Biology Student Chapter, Any Professional Organization (ie., Pre-Med, etc).

Opportunities  Teaching assistant opportunities in the Department of Chemistry, Supplemental Instruction, one on one tutoring, Honor societies, American Society of Biochemistry and Molecular Biology student chapter.

Why this is important  Students will be faced with post-secondary education opportunities and/or job offers, where leadership is a characteristic that will benefit them greatly. Learning how to interact with and/or manage people is invaluable.

Internships

Related Courses  CHEM 399, CHEM 496-499

Recommended sites/work experiences  Any summer internship (or semester internship that does not distract from academics). Hospital shadowing, volunteering. Academic study at other institutions via pre-professional internships (ie., MCAT prep, etc). Additional internships are available through the Savannah River Site, Zeus Industrial Products, Eastman-Kodak, Roche Carolina, and Milliken.

Why this is important  Depending on the students interest after graduation (graduate/professional school or career) internships provide the knowledge necessary to make decisions regarding the many choices that await them.

Research

Related courses  CHEM 496-499

Sample research projects or topics  Non-USC Research experiences for undergraduates, USC research opportunities: through the departments of Chemistry, Biology, Public Health, Pharmacy

Other recommendations  Students participating in research are required to attend weekly group meetings
and present updates on their research projects. In addition, students will present their research at Discovery Day, and specific undergraduate research conferences both locally and nationally.

**Why this is important**
Besides the fact that research is required as a major course, it provides problem solving skills that are beneficial in all aspects of life. Research teaches students to think "outside the box" and not to look for the obvious.

**INTEGRATE**

**How to Integrate**
Hands on research, presentation of research results at local and national meetings. Local: Discovery Day, ACS local sections National: ACS regional meetings, Southeast Undergraduate Research Conference, American Society of Biochemistry and Molecular Biology Meeting, PITTCON, etc. Research experiences in chemistry require students to design their own experiments based on observations and literature. Students are presented with a problem in the lab and are required to solve the problem using information gained in previous classes and through literature searches. Most advances in society are related to scientific development and problem solving.

**LEAD**

**Initial career opportunities**
Graduate or Professional School matriculation. Most students attend graduate school in Chemistry/Biochemistry, Professional school for Medicine or Dental. Positions other than graduate/professional school: Pharmaceutical Companies like Abbott, Eli Lilly, Roche Carolina; Milliken, Savannah River Site, Zeus Industrial Products, DHEC, Community Environmental Labs.

**Related graduate programs**
M.S. Chemistry/PhD Chemistry: specific emphasis is based on individual interests (Biochemistry, Inorganic, Polymer, Physical, Environmental, Organic, etc)

**Future career opportunities**
Faculty Research Positions, Physicians, Industrial Chemists, Pharmaceutical Lab specialists, quality control chemist, laboratory technician, technical sales representative, chemical and drug sales representative, consumer protection specialist, water quality analyst / technician, technical writer, aerosol development manager, quality assurance chemist, methods development chemist, process development chemist, organic mass spectrometrist, forensic lab analyst, pulp and paper chemist, paint formulation chemist, paper product developer, chemical information specialist, occupational health and safety officer, medical laboratory technician, analytic chemist, associate chemist, research assistant, chemical safety officer, clinical technician, food and drug analyst, pollution controller, information analyst, soil tester, laboratory analyst, chemical technologist assayer, product tester, production chemist, lab coordinator, chemical analyst, pest control technician, textile chemist, occupational hygienist, geologist, color development specialist, environmental engineer, geochemist, industrial hygienist, teacher, crime lab analyst, dentist, medical technologist

The listed experiences are a sample of options for your major. See the USC Connect experiences database to search for more opportunities.
www.sc.edu/usconnect/participate