Undergraduate

Chemistry

SIUe

College of Arts and Sciences
Department of Chemistry

Degrees Available at SIUE

- Bachelor of Science, Chemistry (specializations available in the following)
  - ACS Certified Biochemistry
  - ACS Certified Chemistry
  - Biochemistry
  - Forensics Chemistry
- Professional Educator Licensure (9-12) program
- Bachelor of Arts, Chemistry (specialization available in the following)
  - Medical Science

Chemistry at SIUE

The Department of Chemistry offers several degree programs and active research opportunities in order to satisfy the diverse career goals of our students. At SIUE, students will learn from faculty members who have earned national and international reputations in their respective areas of expertise. The department also has well-equipped laboratories where students can expect to gain experience in the many different disciplines in chemistry and biochemistry. Through the department's research programs, students may also gain experience in the most current techniques.

Career Opportunities

Students earning a degree in chemistry will be well-prepared to pursue a variety of careers. According to the American Chemical Society, in 2015, the median annual salary for a chemist with a Bachelor of Science was $75,400. Chemistry majors work as analysts, environmentalists, criminologists, librarians, patent examiners, production foremen, researchers, writers and teachers. Chemists also find work in sales, and for private companies that produce items such as fertilizers, pharmaceuticals, plastics and semiconductors. Careers in the public sector can be found in local, state and federal governments, as well as hospitals, high schools, colleges and universities.

Laboratory and Research Opportunities

Student participation in research, regular interaction with experts in the field and hands-on experience is of great interest to potential employers and graduate schools. At SIUE, the Department of Chemistry blends traditional coursework with research opportunities and in 2013, the Department of Chemistry moved into a new building that features state-of-the-art teaching and research labs with equipment that rivals what is available at PhD-granting institutions. Our students are encouraged to begin their research experiences early in their academic career in order to get as much hands-on experience as possible. Our students also regularly interact with experts in the field. The combination of research experience and faculty interaction, ensure our students are well-prepared to begin their career or attend graduate school.

Global Experience

The Department of Chemistry is made up of students and faculty from many countries, including Canada, China, Ghana, India, Iran, Italy, Japan, Nepal, Taiwan, the United States and others. International collaboration is common and can yield student travel opportunities, including study abroad.

Faculty

Cristina De Meo, PhD
2001, University of Georgia

Robert P. Dixon, PhD
1993, University of Pittsburgh

Jie Dong, PhD
2014, The Ohio State University

Michael Hankins, PhD
2017, Saint Louis University

Myron W. Jones, PhD
2010, University of Oklahoma

Yun Lu, PhD
1996, Nankai University

Sarah B. Luesse, PhD
2004, Indiana University

Edward Navarre, PhD
2002, University of Vermont

Leah O'Brien, PhD
1987, University of Arizona

Monica Rieth, PhD
2014, Lehigh University

Mina Sumita, PhD
2006, Wayne State University

Michael Shaw, PhD
1993, University of British Columbia

Kevin Tucker, PhD
2011, University of Illinois

Eric J. Voss, PhD
1992, Northwestern University

Chin-Chuan Wei, PhD
1998, City University of New York

Susan D. Wiediger, PhD
1999, Rice University

SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE
COLLEGE OF ARTS & SCIENCES

Sample Curriculum for the Bachelor of Science in Chemistry, ACS Certified Chemistry

	Fall Semester		Spring Semester	
Year 1	**CHEM 121A** General Chemistry (BPS)	4	**CHEM 121B** General Chemistry (BPS)	4
	CHEM 125A General Chemistry Lab (EL)	1	**CHEM 125B** General Chemistry Lab (EL)	1
	ENG 101 Composition	3	ENG 102 Composition	3
	MATH 150 Calculus I (FQR)	5	**MATH 152** Calculus II (BPS)	5
	ACS 101 Public Speaking	3	RA 101 Reasoning & Argumentation or PHIL 212	3
	FST 101 Succeeding & Engaging at SIUE	1	Total Credits	16
	Total Credits	17		
Year 2	CHEM 331 Quantitative Analytical Chemistry	3	**CHEM 241B** Organic Chemistry (BPS)	3
	CHEM 335 Quantitative Analytical Chem Lab	1	**CHEM 245** Organic Chemistry Lab (EL)	2
	CHEM 241A Organic Chemistry	3	**STAT 107, STAT 244,** or STAT 380 (BICS)	3-4
	PHYS 151 University Physics (BPS)	4	**PHYS 152** University Physics (BPS)	4
	PHYS 151L University Physics Lab (EL))	1	**PHYS 152L** University Physics Lab (EL)	1
	Breadth Fine & Performing Arts (BFPA)	3	Breadth Life Science (BLS)	3
	Total Credits	15	Total Credits	16-17
Year 3	CHEM 300 Professionalism in Science	1	CHEM 361B Physical Chemistry	3
	CHEM 361A Physical Chemistry	3	CHEM 365B Physical Chemistry Lab	1
	CHEM 365A Physical Chemistry Lab	2	CHEM Elective	3
	CHEM 451A Biochemistry	3	Breadth Social Science (BSS)/Experience Global Culture (EGC)	3
	Breadth Humanities (BHUM)	3	Experience United States Culture (EUSC)	3
	Interdisciplinary Studies (IS)	3	Total Credits	13
	Total Credits	15		
Year 4	CHEM 411 Inorganic Chemistry	3	CHEM 431 Instrumental Analysis	3
	CHEM 415 Inorganic Chemistry Lab	2	CHEM 435 Instrumental Analysis Lab	1
	Elective	3	CHEM 499 Senior Assignment	0
	Elective	3	CHEM Elective	2
	Elective	3	Health Experience (EH)	2
	Total Credits	14	Elective	3
			Elective	3
			Total Credits	14
			Total Hours	**120**

Transfer Students: To maximize your transfer experience, complete the **bolded** courses/requirements pre-transfer and satisfy either the Illinois Articulation Initiative (IAI) General Ed Core or receive an AA, AS, or AAT (early childhood, special ed or math) degree from an IAI community college. If 'Minor' requirements are shown, discuss careful course selection with the academic advising contact listed. Visit siue.edu/transfer to find course equivalency guides.

Admission Requirements

High school students who plan to major in one of the degree programs in chemistry should complete at least three years of college preparatory mathematics (two years of algebra and one of geometry) before entering the University. A fourth year of college preparatory mathematics (to include trigonometry) and one year each of biology, chemistry, and physics are strongly recommended.

Admission to a degree program in chemistry requires an application for a major and acceptance by the department. Once admitted, students are formally affiliated with the Department of Chemistry and assigned a professional academic advisor. Advisement is mandatory; majors are permitted to register each term only after meeting with their academic advisor. Because the study of science is progressive, students are encouraged to select their major field of study early in their academic careers to ensure orderly progress toward meeting degree requirements. To be admitted, students already enrolled in the University must have a minimum GPA of 2.4 in science and mathematics courses completed, and a cumulative GPA of 2.5 or higher in all courses taken at SIUE and successfully completed CHEM 121A with a C or better. Transfer students should have a 2.6 GPA in science and mathematics courses, and a 2.5 average in courses taken at other colleges and universities. Students who do not meet the GPA requirements may be provisionally accepted and will receive advisement.

This information is concurrent with the 2019-2020 Academic Catalog. Courses are subject to change at any time.

Graduation Requirements

The following requirements must be met in order to obtain a degree in chemistry:

- Earn a minimum of 120 hours (129 for Chemistry - Teacher Licensure) of acceptable credit with a cumulative GPA of 2.0 or higher
- Complete at least 12 hours of SIUE credit in major courses numbered above 299 with a cumulative GPA of 2.0 or above
- Earn a GPA of 2.0 or above in all major courses numbered above 299
- Complete at least six hours of SIUE credit in major courses numbered above 299 within two years preceding graduation.

No more than eight semester hours of D grades in any combination of science or mathematics courses may be counted toward a major in chemistry.

Credit hours earned through proficiency, transfer, CLEP or from a course, after credit has been received for similar or more advanced coursework in the same subject at SIUE or elsewhere, may not be applied toward graduation requirements.

Students admitted to a health professions school at the end of their junior year may transfer appropriate health professions school credits to complete the requirements for a degree in chemistry from SIUE.

Contact Information

Department of Chemistry
College of Arts and Sciences
Phone: 618-650-2042

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