

# Chemistry: Business Option

Bachelor of Arts (BA)

## Business Option

Chemistry is the branch of natural science that deals with the properties and classification of matter, the changes that matter undergoes and the energy associated with these changes. Chemists study substances at the atomic and molecular level and how different substances interact with each other. Research by chemists increases our knowledge about chemicals and their roles in the natural world and has led to the discovery and development of new and improved products and advances in medicine, agriculture, food processing and many other fields. Chemists are employed by industry, government, academia, non-profits and in the entrepreneurship sector. Those interested in a challenging and rewarding career that provides financial security, promotes self-respect and offers the opportunity to work on stimulating and breakthrough projects should consider a career in chemistry.

### Becoming Career Ready...

/ Faculty-mentored research will help you develop the professional skills needed for success in a competitive job market and/or advanced study in graduate and professional programs.

/ Completion of the Chemistry: Business option will provide graduates with a broad exposure to chemistry that also includes a basic education in business and is ideal for those interested in pursuing careers in chemistry, marketing, finance, human resources and management within chemical industry. Chemistry graduates who have business and communication skills as well as leadership ability are in increasing demand in the marketplace. Example job titles include chemical and pharmaceutical sales rep, product development manager, quality control specialist, sales (pharmaceuticals, chemicals, instruments), cheminformatics scientist, chemical safety and hygiene manager, hazardous waste manager and environmental protection agent.

/ 100% of Southeast programs offer real-world experience. BA Chemistry: Business option students earn this experience through undergraduate research or an internship.

/ Chemistry: Business option students will gain valuable hands-on experience and training using a variety of lab equipment, chemical instruments, and tools in laboratory courses and undergraduate research while studying in the state-of-the-art, first-rate learning environment provided by the recently renovated Magill Hall of Science.

/ The path to a successful career starts with you! You can maximize your career development by working closely with Career Services and Southeast faculty – they are here to help you connect your passions, interests and skills to jobs and opportunities in the field. Career Services provides professional career counseling and coaching, resume critiques, practice interviews, job search strategies, career events, networking opportunities and more.

### Internships, Employment Opportunities, Graduate Schools and Programs of Recent Graduates:

- Biokyowa
- Buzzi Unicem USA
- Eli Lilly
- Exxon Mobil
- Monsanto
- Pharmacia (currently part of Pfizer)
- PPG Industries
- Proctor and Gamble
- MilliporeSigma
- Missouri State Highway Patrol Crime laboratory
- Indiana University
- John Hopkins University
- Penn State University
- Purdue University
- Southern Illinois University (School of Medicine)
- Texas A & M
- University of Illinois (School of Medicine, Graduate School)
- University of Missouri – Columbia (School of Medicine, Graduate School)
- University of Notre Dame
- University of Wisconsin – Madison
- Washington University
- Numerous other graduate/professional programs of study and employers

### Special Options with Chemistry and Business

Southeast offers a Master of Natural Science in Applied Chemistry.

Upon completion of the B.A. in Chemistry (Business Option), students may apply directly to the MBA program at Southeast.

### Career Information

To learn more about career opportunities in chemistry visit: <https://www.acs.org/content/acs/en/careers/college-to-career.html>.

According to the United States Bureau of Labor Statistics, there were 96200 chemistry related jobs in 2016. This number is expected to increase by 7% by 2026. Source: <https://www.bls.gov/ooh/life-physical-and-social-science/chemists-and-materials-scientists.htm>.

### Transfer and Dual Credit Students

If you have dual credit or transfer credit, please visit our transfer course equivalencies guide at [semo.edu/transfercredit](http://semo.edu/transfercredit).

**To learn more**  
Office of Admissions  
(573) 651-2590  
[admissions@semo.edu](mailto:admissions@semo.edu)  
[semo.edu](http://semo.edu)

**To explore**  
the College of Science, Technology,  
Engineering and Mathematics  
online, visit  
[semo.edu/stem](http://semo.edu/stem)

**For advising**  
Center for Academic Advising  
[semo.edu/advising](http://semo.edu/advising)

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This is a guide based on the 2019-2020 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

### CURRICULUM CHECKLIST

*"Critical Courses" are italicized and bolded. Data shows that students who have completed this course in the first two years and have earned the noted grade are most likely to complete this program of study.*

#### Chemistry Core – 33 Hours Required

- \_\_\_ **CH185** *General Chemistry (5)*
- \_\_\_ **CH186** *Foundations of Inorganic Chemistry (3)*
- \_\_\_ CH187 Inorganic Chemistry and Qualitative Analysis Laboratory (2)
- \_\_\_ CH271 Foundations of Analytical Chemistry (5)
- \_\_\_ CH306 Survey of Physical Chemistry (3)
- \_\_\_ CH313 Physical Chemistry Laboratory (3)
- \_\_\_ **CH340** *Essentials of Organic Chemistry (5)*
- \_\_\_ CH498 Professional Presentation in Chemistry (1)
- \_\_\_ CH531 Foundations of Biochemistry (3)
- \_\_\_ OR
- \_\_\_ UI331 Foundations of Biochemistry (3)
- \_\_\_ UI443 Professional Experience in Chemistry (3)

#### Business Option – 30 Hours Required\*

- \_\_\_ AC221 Principles of Accounting I (3)
- \_\_\_ AC222 Principles of Accounting II (3)
- \_\_\_ EC215 Principles of Microeconomics (3)
- \_\_\_ EC225 Principles of Macroeconomics (3)
- \_\_\_ FI361 Financial Management (3)
- \_\_\_ IS175 Information Systems (3)
- \_\_\_ MA223 Elementary Probability and Statistics (3)
- \_\_\_ OR
- \_\_\_ QM257 Business Statistics (3)
- \_\_\_ MG301 Principles of Management (3)
- \_\_\_ MI375 Management Information Systems (3)
- \_\_\_ MK301 Principles of Marketing (3)

#### Additional Requirements – 13 Hours Required

- \_\_\_ **MA139** *Applied Calculus (3)*
- \_\_\_ PH120/020 Introductory Physics I (5)
- \_\_\_ PH121/021 Introductory Physics II (5)

\* Upon completion of the B.A. in Chemistry (Business Option), students may apply directly to the MBA program at Southeast. For more information about the MBA degree program, contact the MBA office in the Robert A. Dempster Hall at Southeast Missouri State University.

Note: Completion of an experiential learning project (undergraduate research or internship) in the major is required. The departmental advisor should be consulted for information about this requirement.

**General Education Requirements** – some requirements may be fulfilled by coursework in major program

- Social and Behavioral Sciences – 6 hours
- Constitution Requirement – 3 hours
- Written Communication – 6 hours
- Oral Communication – 3 hours
- Natural Sciences – 7 hours (from two disciplines, one to include a lab)
- Mathematics – 3 hours
- Humanities & Fine Arts – 9 hours (from at least two disciplines)
- Additional requirements – 5 hours (to include UI100 for native students)
- Civics examination

### SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
<b>FIRST YEAR</b>	UI100	3	<b>CH186</b>	3
	EN100	3	CH187	2
	<b>CH185/CH085/CH005</b>	5	IS175	3
	General Education	3	<b>MA139</b>	3
			General Education	3
	<b>Total</b>	<b>14</b>	<b>Total</b>	<b>14</b>
Milestone: maintain 2.0 cumulative GPA				

<b>SECOND YEAR</b>	<b>CH340/040</b>	5	EC225	3
	EC215	3	PH121/021	5
	PH120/020	5	MA223 OR QM257	3
	General Education	3	General Education	3
	<b>Total</b>	<b>16</b>	<b>Total</b>	<b>14</b>
Milestone: maintain 2.0 cumulative GPA				

(summer courses are encouraged to avoid 18 hour semesters)

<b>THIRD YEAR</b>	AC221	3	AC222	3
	CH271/071	5	MG301	3
	CH531 OR UI331	3	UI443	3
	General Education	3	General Education	3
	General Education	3	General Education	3
	<b>Total</b>	<b>17</b>	<b>Total</b>	<b>15</b>
Milestone: maintain 2.0 cumulative GPA				

<b>FOURTH YEAR</b>	CH306	3	CH313	3
	FI361	3	CH498	1
	MI375	3	MK301	3
	General Education	3	Elective	3
	Elective	3	Electives	3
			Elective	2
	<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
Milestone: maintain 2.0 cumulative GPA				

A "Milestone" signifies a significant stage for a student in the completion of a degree.

**Degree requirements for all students:** a minimum of 120 credit hours, completion of the General Education program, completion of 39 senior division hours (300-599), Writing Proficiency Exam (WP003). Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

A minimum 2.0 GPA in the major and overall are required to graduate with a BA in Chemistry degree.

Revised  
4/29/2019