

# CHEMISTRY EDUCATION

## Bachelor of Science in Education (BSED)

This is a guide based on the 2024-2025 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 bold. 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.

#### Professional Education Courses- 47 Hours Required

A grade of 'C' or higher is required in education courses, with the exception of ED280 which requires a grade of 'B' or higher.

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#### ED280 Introduction to Education as a Profession (3)

- EF400 Student Teaching Seminar (1)
- EX390 Psychology and Education of the Exceptional Child (3)
- PY222 Development of the Adolescent (3)
- SE307 Reading/Writing in the Content Area (3)
- SE320 Techniques of Teaching Science (3)
- SE350 Pedagogy 1: Principles of Effective Teaching (3)
- SE355 Field Experience II (3)
- SE365 Pedagogy 2: Secondary School (4)
- SE380 Advanced Field Experience (3)
- SE385 Pedagogy 3: Advanced Methods of Middle and Secondary Teaching (3)
- SE390 Instructional Interventions for Middle and Secondary Students with Special Literacy Needs (3)
- SE465 Student Teaching (12)

#### Chemistry Education – 37-39 Hour Major - No minor required

##### Required Courses:

- CH186 General Chemistry II (3)
- CH187 General Chemistry II Lab (1)
- CH271 Foundations of Analytical Chemistry (5)
- CH306 Inorganic Chemistry (3)
- CH341 Foundations of Organic Chemistry (4)
- CH342 Organic Chemistry Lab I (1)
- PH120 Introductory Physics I (5)
- CH531 Foundations of Biochemistry (3)
- PL425 Scientific Reasoning (3)

##### Choose 3 Hours From:

- BS108 Biology for Living (3)
- BS218 Biological Science: A Process Approach (3)

##### Choose one of the following:

- GO110 Physical Geology (3)
- GO318/018 Earth Science: Process Approach (3)
- GO320 Oceanography (3)
- GO418 Meteorology (4)

##### Choose one of the following Environmental Science electives:

- BI332 General Ecology (4)
- BS105 Environmental Biology (3)
- CH450/EV 450 Environmental Chemistry (3)
- EV360 Recycling & Waste Management (3)
- GO150 Earth Science: Environmental Hazards (4)
- GO305 Environmental Geoscience (3)
- GO372 Earthquakes & Society (3)

##### Additional Requirements:

- CH184 General Chemistry I Lab (1)
- CH185 General Chemistry I (3)
- CH195 Chemistry Seminar 1 (1)
- CH295 Chemistry Seminar 2 (2)
- CH405 Engineering in Science Education (1)
- MA116 Precalculus A (3)
- MA139 Applied Calculus (3)

**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
FIRST YEAR	UI100	1	PY222	3
	EN100	3	CH186	3
	CH184	1	CH187	1
	CH185	3	CH195	1
	General Education	3	MA116	3
	General Education	3	General Education	3
			General Education	3
	<b>Total</b>	<b>14</b>	<b>Total</b>	<b>17</b>
SECOND YEAR	BS108 or BS218	3	<b>ED280</b>	3
	CH271/071	5	CH341	4
	MA139	3	CH342	1
	General Education	3	PH120	5
	General Education	3	Env. Science Elective	3-4
	<b>Total</b>	<b>17</b>	<b>Total</b>	<b>16-17</b>
	Milestone: Passing score MoGEA,			
THIRD YEAR	CH405	1	CH295	2
	CH531	3	GO110/010 or GO318/018 or GO320 or GO418	3
	EX390	3	SE307	3
	PL425	3	SE355	3
	SE350	3	SE365	4
	General Education	3	General Education	3
	<b>Total</b>	<b>16</b>	<b>Total</b>	<b>18</b>
	Milestone: Passing score Mo. Content Exam; GPA in major 3.0			
FOURTH YEAR	CH306	3	EF400	1
	SE320	3	SE465	12
	SE380	3		
	SE385	3		
	SE390	3		
	General Education	3		
	<b>Total</b>	<b>18</b>	<b>Total</b>	<b>13</b>
	Milestone: Passing score Mo content exam, 3.0 GPA in Education and content courses.			

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, and completion of 39 senior division hours (300-599). Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

**NOTE:** This program meets the educational requirements for professional licensure and/or certification in Missouri. Please consult our State Authorization webpage, to determine information specific to your state: <https://app.semo.edu/genl/distancelearningcompliance/DistLearnComp.aspx>.



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2024-2025 *degree map*

Revised  
2/2/2024

CENTER FOR ACADEMIC ADVISING / [semo.edu/advising](https://semo.edu/advising)  
OFFICE OF ADMISSIONS / (573) 651-2590 / [admissions@semo.edu](mailto:admissions@semo.edu)

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### ADMISSION TO THE TEACHER PREPARATION PROGRAM

To be eligible for enrollment in the majority of courses offered by the Teacher Preparation Program and required for a teaching degree (BSE, BSFCSE, BME), students must be admitted to the Teacher Preparation Program (TPP). Applications can be found at <https://semo.edu/colleges-departments/education-health/educator-preparation/admission.html>. Students should apply for admission to the TPP upon having met the following entrance criteria:

1. 42 hours of coursework completed;
2. One of the following:
  - a. Composite/Superscore of 20 or higher on the ACT exam
  - b. Composite score of 1040 or higher on the SAT exam
  - c. Passing score on the Paraprofessional exam
  - d. Have a previous 4-year degree from an accredited college/university
3. The following course requirements met:
  - a. A minimum grade of 'C' in CF/PY120 The Child (Elementary, Early, and Exceptional) or PY222 Development of the Adolescent (Middle and Secondary)
  - b. A minimum grade of 'B' in ED280 Introduction to Education as a Profession or ME222 Principles of Teaching Music.
4. International Students must also meet the following requirements:
  - a. C1 (CEFR) level
  - b. IELTS minimum score of 7.0 or TOEFL minimum score of 95
  - c. Note: This policy is for non-United States citizens who are not native English speakers. Students from the United Kingdom, Canada, Australia, and New Zealand are exempt from English proficiency verification

### RETENTION IN THE TEACHER PREPARATION PROGRAM

After admission, students must continue to meet the following requirements for retention in the TPP:

1. Demonstrate continued eligibility for interaction with schoolchildren by completing an MSHP/FBI background check through the use of the MSHP/FBI background check system. (A current background check is required for participation in all field and clinical experiences.);
2. Pass all professional education courses with a minimum grade of 'C.' A minimum grade of 'C' must be obtained in all prerequisite courses before a student can be enrolled in subsequent coursework. Students who, after two attempts, have still not earned a minimum grade of 'C' in a particular professional education course will be removed from the Teacher Preparation Program.
3. Demonstrate behavior appropriate for teaching professionals. Appeals related to removal from the TPP can be found at [www.semo.edu/education-health/edu-prep/admission.html](http://www.semo.edu/education-health/edu-prep/admission.html)

**GRADUATION REQUIREMENT** - A final 3.0 GPA in both pedagogy and content coursework is required for graduation.

### TEACHER CERTIFICATION

Upon completion of Southeast's Teacher Preparation Program an individual is eligible to be recommended for a Missouri Teaching Certificate if the student has the following:

1. A final 3.0 GPA in both pedagogy and content coursework;
2. A passing score on the appropriate licensure exam(s) as required by the Missouri Department of Elementary and Secondary Education;
3. A passing score on the Teacher Candidate Instrument of the Missouri Educator Evaluation System;
4. MSHP/FBI background clearance from no earlier than one year prior to the date of the application for certification.

**ADDITIONAL NOTES:** Regardless of printed program requirements, any changes or additions mandated by the State of Missouri will become effective on the date cited by the regulations. Students transferring into education programs should be aware of the need to be eligible for admission to the teacher preparation program immediately upon transfer. They should contact the Candidate Status and Certification Officer well in advance of the time of transfer. It is especially important that transfer students in the College of Education make arrangements for having ACT and/or MoGEA scores transferred to the University.

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2/2/2024

2024-2025 *degree map*



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