

CHEMISTRY EDUCATION

Bachelor of Science in Education (BSED)

This is a guide based on the 2026-2027 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.

- ___ **ED280** *Introduction to Education as a Profession* (3)
- ___ EF400 Student Teaching Seminar (1)
- ___ EX390 Psychology and Education of the Exceptional Child (3)
- ___ PY222 Psychological Development in Adolescence (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)
- ___ CH531 Foundations of Biochemistry (3)
- ___ PH120 Introductory Physics I (5)
- ___ 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:

- ___ BY330 General Ecology (4)
- ___ CH450/EV450 Environmental Chemistry (3)
- ___ EV105 Environmental Biology (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)
- ___ 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	CH186	3
	EN100	3	CH187	1
	CH184	1	MA116	3
	CH185	3	PY222	3
	CH195	1	General Education	3
	General Education	3	General Education	3
	General Education	3		
Total	15		Total	16
SECOND YEAR	BS108 or BS218	3	ED280	3
	CH271/071	5	CH341	4
	MA139	3	CH342	1
	General Education	3	PH120/020	5
	General Education	3	Env. Science Elective	3-4
	Total	17	Total	16-17
	Milestone: Admission to the Teacher Preparation Program			
THIRD YEAR	CH531	3	CH295	2
	EX390	3	GO110/010 or GO318/018 or GO320 or GO418	3
	PL425	3	SE307	3
	SE350	3	SE355	3
	General Education	3	SE365	4
			General Education	3
	Total	16	Total	18
	Milestone: Maintain a 3.0 GPA in content courses and in professional education courses.			
FOURTH YEAR	CH306	3	EF400	1
	SE320	3	SE465	12
	SE380	3		
	SE385	3		
	SE390	3		
	General Education	3		
	Total	18	Total	13
	Milestone: Passing score on MO state assessment, passing score on MEES, 3.0 GPA in content courses and in professional education 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/gen/distancelearningcompliance/DistLearnComp.aspx>.



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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. Have a GPA of 2.5 or higher.
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 have a minimum IELTS score of 7.0, TOEFL score of 95, PTE score of 64, or Duolingo score of 125. This requirement is for non-United States citizens who are not native English speakers. Students from countries where English is known to be the official language of education 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.
3. Demonstrate behavior appropriate for teaching professionals. Appeals related to removal from the TPP can be found at <https://semo.edu/colleges-departments/education-health/educator-preparation/admission.html>

GRADUATION REQUIREMENT

1. A 3.0 GPA in pedagogy coursework is required for all Education majors.
2. A 2.5 GPA in content coursework is required for all middle school, secondary, and K-12 programs except Exceptional Child K-12, Music K-12 and Social Studies 9-12, which require a 3.0 GPA in content coursework.

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 pedagogy coursework is required for all Education majors. A final 2.5 GPA in content coursework is required for all middle school, secondary, and K-12 programs (excluding Exceptional Child K-12).
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.

