

PHYSICS 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.

Education Courses- 47 Hours Required

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

- ___ **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 Content Literacy Methods for Middle and High School (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-Interdisciplinary Methods and Technology (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)

Physics Education – 59-62 Hour Major - No minor required

Required Courses:

- ___ PH230/030 General Physics I (5)
- ___ PH231/031 General Physics II (5)
- ___ PH345 Experimental Methods I (3)
- ___ PH360 Modern Physics (3)
- ___ PL425 Scientific Reasoning (3)

Choose 3-4 Hours From:

- ___ BI332 General Ecology (4)
- ___ EV360 Recycling & Waste Mgt (3)
- ___ GO305 Environmental Geoscience (3)
- ___ GO372 Earthquakes & Society (3)

Choose 3 Hours From:

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

Choose 5-7 hours*:

- ___ CH181 Introductory Chemistry I (5)

OR

- ___ CH184/185 General Chemistry I and Lab (4)

AND

- ___ CH186 Foundations of Inorganic Chemistry (3)

Choose 3 Hours From:

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

Choose 3 hours at the 300-599 level:

- ___ EPxxx
- ___ PHxxx

Choose 4 Hours From:

- ___ CS101 Introduction to Computer Programming (3)
- ___ EP100 Introduction to Engineering (3)
- ___ EP240 Circuit Analysis I (3)
- ___ EP261 Engineering Mech: Statics (3)
- ___ EP262 Engineering Mech: Dynamics (3)
- ___ EP263 Mechanics of Materials (4)
- ___ EP305 Digital & Analog System Design (3)
- ___ EP310 Microcontroller & Embedded Systems (3)
- ___ EP340 Electronic Circuits (3)
- ___ EP462 Materials Science (3)
- ___ PH328 Energy (3)
- ___ PH341 Optics (3)
- ___ PH370 Mechanics (3)
- ___ PH371 Electrodynamics (3)
- ___ PH400 Topics in Physics & Engineering (3)
- ___ PH473 Quantum Mechanics (3)
- ___ PH475/476 Literature of Physics (1-2)
- ___ PH478/479 Undergraduate Research (1-2)
- ___ PH490/491 Independent Study in Physics (1-2)
- ___ PH570 Mathematical Physics (3)

Choose 5 hours from CS101 or PH or EP electives (5)

Additional Requirements:

- ___ EP405 Engineering in Science Education (1)
- ___ MA140 Analytic Geometry & Calculus I (5)
- ___ MA145 Analytic Geometry & Calculus II (4)
- ___ MA244 Analytic Geometry & Calculus III (4)

General Education Requirements – some requirements may be fulfilled by coursework in major program
 Social and Behavioral Sciences (6); Constitution requirement (3); Written Communication (6); Oral Communication (3); Natural Sciences (7 hours, from two disciplines, one to include a lab); Mathematics (3); 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	BS218 or BS108	3
	CH181/CH081/001*	5	EN100	3
	CS177/Physics elective	3	MA145	4
	EP100	3	PH230/030	5
	MA140	5	General Education	3
	Total	17	Total	18
SECOND YEAR	MA244	4	ED280	3
	PH231/031	5	Environmental Science	3-4
	PY222	3	Physics Elective	3
	General Education	3	General Education	3
	General Education	3	General Education	3
	Total	18	Total	18-19
	Milestone: Passing score MoGEA			
THIRD YEAR	EX390	3	EP405	1
	PH345	3	PL425	3
	PH360	3	SE307	3
	SE350	3	SE355	3
	Geoscience elective	3	SE365	4
	General Education	3	Physics Elective	3
Total	18	Total	17	
	Milestone: Passing score Mo. Content Exam; GPA in major 3.0			
FOURTH YEAR	SE320	3	EF400	1
	SE380	3	SE465	12
	SE385	3		
	SE390	3		
	General Education	3		
	Total	15	Total	13
	Milestone: Passing score Mo content exam, passing score on MEEES, 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.

This program could lead to licensure or certification. However, Southeast's program either does not meet, or we cannot determine if it meets, the licensure or certification requirement in all states. Please consult our State Authorization page, Licensure tab, to determine information specific to your state: <https://semo.edu/online/student-resources/stateauth.html>.



Revised 2/2/2024

2024-2025 degree map



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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

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*

