

# SECONDARY MATH/SCIENCE WITH STEM CONCENTRATION

MASTER OF EDUCATION

DEPARTMENT OF CURRICULUM, INSTRUCTION, AND EDUCATIONAL LEADERSHIP

COLLEGE OF EDUCATION

## DELIVERY METHOD

Basic Concentration  
onsite and online  
Advanced Concentration  
100% online

## START TERMS

Fall, Winter, Spring, or Summer

## COMPLETION TIME

Programs can be completed in  
a calendar year if a student begins  
in the summer

## NUMBER OF CREDITS

36 credits

The logo for the Council for the Accreditation of Educator Preparation (CAEP) features the letters 'CAEP' in a bold, green, serif font. A stylized orange and yellow swoosh underline is positioned beneath the letters.

Council for the  
Accreditation of  
Educator Preparation

According to the  
Bureau of Labor Statistics,  
107,420 openings for  
middle and high school teachers  
are projected each year,  
on average, over the  
next decade.

The logo for Slippery Rock University features the words 'Slippery Rock' in a large, white, serif font, with 'University' in a smaller, white, sans-serif font below it. The text is set against a dark green background.

A member of Pennsylvania's State System  
of Higher Education

EXPERIENCE THE DIFFERENCE

[www.sru.edu/graduate](http://www.sru.edu/graduate)

## PROGRAM HIGHLIGHTS

Impact the future and explore the possibilities of teaching by earning a Master of Education in Secondary Education. SRU's M.Ed. in Secondary Education has two concentrations: a basic concentration and an advanced concentration. The basic concentration is for students seeking certification. The advanced concentration is for certified teachers.

SRU's master's degree in Secondary Education offers:

- Flexibility to fit your busy schedule. The basic concentration offers both onsite and online classes, and the advanced concentration can be completed exclusively online
- A 36-credit hour program that can be completed in one calendar year
- Leadership skills geared to advancing your career to the next level
- Specialization in mathematics and science

## BASIC CONCENTRATION

The basic teaching concentration in Secondary Education Teaching – Math/Science is a degree designed for individuals who possess a baccalaureate degree and appropriate coursework in mathematics or one of the secondary science subject areas of biology, chemistry, geology, or physics. Successful completion of the program will lead to a master's degree and can lead to state certification. Students can complete the 36-semester hour program in one calendar year of full-time study, beginning with the summer pre-session and ending with student teaching in the fall or spring. However, students may begin any term.

Often students who apply for SRU's basic track Master of Education Degrees are those interested in changing careers. The Pennsylvania Department of Education (PDE) requires that those who teach English/Language Arts, Mathematics, Sciences, or Social Studies, are highly qualified in their content areas. At SRU there are multiple pathways to prove that you are highly qualified. Once accepted into the program, transcripts from your previous institution will be analyzed for courses in the subject area you will be learning to teach. If you are missing any of the courses needed in that content area, you will be notified of which courses you would need to take to meet the PDE requirements. Alternatively, you are able to show that you are highly qualified by earning a passing score on the PA Content Knowledge Certification Exam for your content area. This test-out option will also be discussed with you, upon acceptance into the program.

## ADVANCED STEM CONCENTRATION (ONLINE)

The advanced teaching concentration in Secondary Education Teaching Math/Science is a Master of Education degree for individuals who already possess teacher certification in secondary mathematics or one of the secondary science subject areas. The program integrates a concentration in Science, Technology, Engineering, and Mathematics (STEM) courses. In addition to core requirements, these certified students will concentrate on individual professional development by electing 12 semester hours of course-work from the areas of instructional design, mathematics/science education, technology, special education, or counseling.

## ADMISSION REQUIREMENTS

Applicants must submit the following materials along with a completed online graduate application and a non-refundable application fee:

### Basic Concentration:

- All applicants must have a bachelor's degree with appropriate course work in mathematics or one of the science disciplines with an overall GPA of 2.80 or higher from an accredited institution of higher education to enter and a 3.0 GPA to exit the graduate program
- Official undergraduate degree transcript(s) and any graduate transcripts
- Resume

### Advanced Concentration:

- All applicants must have a bachelor's degree with an overall GPA of 3.00 or higher from an accredited institution of higher education
- Official undergraduate degree transcript(s) and any graduate transcripts
- Copy of teacher certification
- Resume

## BASIC CONCENTRATION UNDERGRADUATE COMPETENCIES

Students should provide evidence of meeting outcomes in special needs instruction (Slippery Rock University's SEFE 338: Standard-Based Instruction & Assessment in the Inclusionary Classroom and SEFE 342: Educational Psychology for Diverse Learners are essential to meet this requirement).

Students in the basic concentration who meet admission requirements but who have more than three undergraduate deficiencies may be offered conditional admission.

## BASIC CONCENTRATION - PROFESSIONAL LICENSURE CERTIFICATION

All candidates completing this program and student teaching are eligible to receive Pennsylvania certification after achieving a passing or qualifying score on Pennsylvania Department of Education required exam(s). If you are interested in teaching in another state, please contact the Department of Education in that state.

## BASIC CONCENTRATION CURRICULUM GUIDE - TEACHING MATH/SCIENCE WITH STEM LEADING TO CERTIFICATION (M.ED.)

<b>Pedagogy</b>			
SEFE 576	Teaching Integrated Science and Mathematics	3	
SEFE 607	The Theories and Teaching of English Language Learners	3	
SEFE 677	Directed Field Experience in Secondary Schools	3	
<b>Subtotal</b>		<b>9</b>	
<b>Technology</b>			
SEFE 647	Technology-Based Inquiry in Middle & Secondary Schools	3	
<b>Subtotal</b>		<b>3</b>	
<b>Educational Measurement</b>			
SEFE 671	Measurement, Testing, and Assessment	3	
<b>Subtotal</b>		<b>3</b>	
<b>Education Foundations - Select a min of one of the following:</b>		<b>3</b>	
SEFE 604	Philosophical Foundations of Education		
SEFE 606	Social Foundations of Education		
SEFE 609	History of Western Education		
SEFE 680	Crucial Issues in Education		
<b>Subtotal</b>		<b>3</b>	
<b>Research and Statistics</b>			
SEFE 602	Univariate Statistical Methods	3	
<b>Select one of the following:</b>		<b>3</b>	
SEFE 608	Research Methods for Teacher		
SEFE 696	Elements of Qualitative Educational Research		
SEFE 699	Elements of Quantitative Educational Research		
<b>Subtotal</b>		<b>6</b>	
<b>Special Education - Select one of the following:</b>		<b>3</b>	
SEFE 679	Psychology of Learning and Instruction for Diverse Learners		
SPED Course at 600, 700, or 800 level			
<b>Subtotal</b>		<b>3</b>	
<b>Supervised Student Teaching</b>			
SEFE 701	Seminar and Supervised Teaching in the Secondary School	9	
<b>Subtotal</b>		<b>9</b>	
<b>Total Hours</b>		<b>36</b>	

\*\*If a student would like to substitute/transfer another course, the course must meet the Chapter 49 Accommodations and Adaptations Standards as covered in SPED 601.

## ADVANCED CONCENTRATION CURRICULUM GUIDE - TEACHING MATH/SCIENCE WITH STEM

<b>Pedagogy</b>			
SEFE 630	Advanced Pedagogy for Teacher	3	
SEFE 647	Technology-Based Inquiry in Middle & Secondary Schools	3	
SEFE 678	Practicum in Secondary Mathematics/Science	3	
<b>Educational Measurement</b>			
SEFE 671	Measurement, Testing, and Assessment	3	
<b>Educational Foundations</b>			
SEFE 680	Crucial Issues in Education	3	
<b>Research and Statistics</b>			
SEFE 602	Univariate Statistical Methods 3		
<b>Select six credits of the following:</b>		<b>6</b>	
SEFE 608	Research Methods for Teacher		
SEFE 696	Elements of Qualitative Educational Research		
SEFE 699	Elements of Quantitative Educational Research		
<b>Electives - Select 12 credits of the following:</b>		<b>12</b>	
SEFE 607	The Theories and Teaching of English Language Learners		
SEFE 650	Strategic Leadership		
SEFE 652	Organizational Leadership		
SPED 601	Advanced Studies in Learning Disabilities		
SPED 625	Instructional Strategies for Learning and Behavioral Problems		
<b>Total Hours</b>		<b>36</b>	

### CLEARANCES

Clearances are due no later than one (1) week prior to deadline for course registration for each program's practicum/field experience-----no student will be permitted to register for their program's practicum and take part in practicum/field experiences without clearances on file at SRU. Please refer to the graduate website at [www.sru.edu/graduate](http://www.sru.edu/graduate) and select "Requirements by Program" to learn more.

### TUITION & ASSISTANTSHIPS

Information on current tuition and assistantships can be found on the main Graduate Admissions website at [www.sru.edu/graduate](http://www.sru.edu/graduate). Financial Aid brochures are available through the Financial Aid Office [www.sru.edu/FinAid](http://www.sru.edu/FinAid) or the Office of Graduate Admissions.

### AWARD



## FOR QUESTIONS ABOUT ACADEMICS AND COURSE SCHEDULING:

Dr. Jason Hilton  
Graduate Coordinator  
008C McKay Educational Building  
724.738.2307  
[jason.hilton@sru.edu](mailto:jason.hilton@sru.edu)

The educational policies and procedures are continually being reviewed and changed in keeping with the mission of the university. Consequently, this document cannot be considered binding and is intended to be used as only an informational guide. Students are responsible for being informed of official policies and regulations for meeting all appropriate requirements.

## FOR QUESTIONS ABOUT ADMISSIONS:

Office of Graduate Admissions  
104 North Hall, Welcome Center  
Slippery Rock, PA 16057  
[www.sru.edu/graduate](http://www.sru.edu/graduate)  
724.738.2051 or 877.SRU.GRAD  
[graduate.admissions@sru.edu](mailto:graduate.admissions@sru.edu)