

# TEACHING MATH/SCIENCE WITH STEM, MASTER OF EDUCATION (MED) - BASIC CONCENTRATION LEADING TO CERTIFICATION

*"I learned what to teach when I was an undergraduate. I'm learning how to teach as a graduate student in SRU's Secondary Education Math/Science Program. Slippery Rock's reputation for education is so strong I don't expect any problem finding a job."*

– Joel Normand  
Secondary Education

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. It is anticipated that students would complete the 36-semester hour program in one calendar year of full-time study, beginning with the summer pre-session. However, students may begin the program during the fall or spring semesters.

## Admission Requirements

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. Prerequisite undergraduate courses should provide evidence of meeting outcomes in special needs instruction (Slippery Rock University's SEFE 338 (<https://sru-curr.courseleaf.com/search/?P=SEFE%20338>), Standards-Based Instruction & Assessment in the Inclusionary Classroom and SEFE 342 (<https://sru-curr.courseleaf.com/search/?P=SEFE%20342>), Educational Psychology for Diverse Learners, Standard-Based Instruction & Assessment in the Inclusion Classroom meet this requirement).

Although the vast majority of accepted students exceed the minimum GPA requirements, students not meeting these criteria may be considered for conditional admission.

Conditionally admitted students, however, must meet all of the prescribed program requirements before conferral of degree candidacy.

## Basic Concentration Undergraduate Competencies

Students in the basic concentration who meet admission requirements and have more than three undergraduate competencies will be offered conditional admission. While completing these competencies, students will be registered as post-baccalaureate students.

## Degree Completion Process

There are five steps to completing a master's degree at Slippery Rock University. Students must:

1. Obtain unconditional admission status.
2. Be approved for degree candidacy (students must successfully complete between 6 and 12 credit hours in a declared program of study).
3. Pass appropriate comprehensive examinations.
4. Complete research requirements.
5. Complete requisite credit hours.

Note: Praxis II must be completed and passed prior to enrollment in Seminar and Supervised Teaching in the Secondary School. Upon completion of these five steps, the student will be required to apply for graduation before the end of the semester in which he or she wishes to graduate. See the Graduate Catalog for further information.

\*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.

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.

## Related Links

Teaching Math/Science with STEM Leading to Certification- Basic Concentration, MEd Program Page (<https://www.sru.edu/academics/graduate-programs/secondary-education-math/science-with-stem-concentration-master-of-education/>)

Secondary Education Math/Science Fact Sheet (<https://www.sru.edu/documents/programs/factsheets/graduate/FS-SEFE-MS.pdf>)

Professional Licensure/Certification Page (<https://www.sru.edu/students/student-consumer-information/professional-licensure/>)

## Curriculum Guide

| Code                           | Title  | Hours |
|--------------------------------|--|-------|
| <b>Pedagogy</b>                |  |       |
| SEFE 576                       | Teaching Integrated Science and Mathematics for Middle and Secondary Education | 3     |
| SEFE 607                       | The Theories and Teaching of English Language Learners                         | 3     |
| SEFE 677                       | Directed Field Experience in Secondary Schools                                 | 3     |
| Subtotal                       |  | 9     |
| <b>Technology</b>              |  |       |
| SEFE 647                       | Technology-Based Inquiry in Middle & Secondary Schools                         | 3     |
| Subtotal                       |  | 3     |
| <b>Educational Measurement</b> |  |       |
| SEFE 671                       | Measurement, Testing, and Assessment   | 3     |
| Subtotal                       |  | 3     |
| <b>Education Foundations</b>   |  |       |
|                                | Select a minimum of one of the following:                                      | 3     |

|                                       |   |           |
|---------------------------------------|---|-----------|
| 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         |
| Select one of the following:          |   | 3         |
| 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</b>              |   |           |
| Select one of the following:          |   | 3         |
| 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> |

<sup>1</sup> 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.

## Important Curriculum Guide Notes

This Curriculum Guide is provided to help SRU students and prospective students better understand their intended major curriculum. Enrolled SRU students should note that the My Rock Audit may place already-earned and/or in progress courses in different, yet valid, curriculum categories. Enrolled SRU students should use the My Rock Audit Report and materials and information provided by their faculty advisers to ensure accurate progress towards degree completion. *The information on this guide is current as of the date listed. Students are responsible for curriculum requirements at the time of enrollment at the University.*

PASSHE - Pennsylvania State System of Higher Education Institutions

Major Code: 9250  
 UCC 09.11.2024  
 Revised 10.15.2024