

SCIENCE EDUCATION (M.S.ED.)

Master of Science in Science Education Program

Program Code: MSED-ED

Major Code: SBI (Leading to Initial NYS Teacher

Certification in Biology 7-12)

SCH (Leading to Initial NYS Teacher Certification in Chemistry 7-12)

SEA (Leading to Initial NYS Teacher Certification in Earth Science 7-12)

SPH (Leading to Initial NYS Teacher Certification in Physics 7-12)

Career, Technical, and Science Education Department

Bacon Hall 122

(716) 878-4717

[ctse.buffalostate.edu/ \(https://ctse.buffalostate.edu/\)](https://ctse.buffalostate.edu/)

Accredited: Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)

Enrollment in all teacher education programs follows the guidelines for "Admission to Teacher Education Programs (<http://ecatalog.buffalostate.edu/graduate/admission-graduate-program/admission-all-education-programs/>)" found in this catalog. Applicants who do not yet meet all admissions criteria should consult with the department.

This Master of Science in Science Education program is designed for individuals holding an undergraduate degree in a core science (Biology, Chemistry, Earth Sciences, Geology, or Physics). Candidates who complete 31-37 credit hours (which includes student teaching and a master's project) in education coursework may qualify for NYSED initial certification allowing them to teach science in grades 7-12 in New York State.

Candidates should consult the Teacher Certification website for current seminars and workshops. <https://teachercertification.buffalostate.edu/seminars-and-workshops> (<https://teachercertification.buffalostate.edu/seminars-and-workshops/>)

Admission Requirements

Candidates new to Buffalo State College

Applicants must have a baccalaureate degree with sufficient academic background in the prospective area of teaching to take graduate work in the discipline. Candidates are strongly encouraged to contact the department's program coordinator for a transcript review and a pre-application interview.

The following criteria must also be met:

1. Official transcripts from all institutions that the candidate has attended.
2. Overall GPA 3.0 or higher.
3. Proficiency in a foreign language through the 102 level (one year of foreign language).
4. Science certification area (Biology, Chemistry, Earth Sciences, Geology or Physics) GPA of 3.0 or higher.
5. A minimum of thirty credit hours in the science discipline (Biology, Chemistry, Earth Sciences, Geology, or Physics) in which certification is sought.
6. Statement of intent that should include:
 - a. reasons for pursuing graduate study in science education;
 - b. career aspirations;
 - c. special interests within the field;
 - d. any unusual features of background that might need explanation or be of interest to the program's admissions committee.
7. Letter of reference that includes an assessment of the applicant's ability to work with others.

Buffalo State Quick Admit

For candidates with undergraduate degrees from SUNY Buffalo State, Science Education has agreements with the content science departments to "Buffalo State Fast Track" their majors wishing to become certified to teach. Students in the following degree programs at SUNY Buffalo State who meet the above admission requirements can move directly into the M.S.Ed. program with this Buffalo State Fast Track option:

1. B.A. Biology
2. B.S. Chemistry
3. B.A. Geology; B.S. Earth Sciences
4. B.A. Physics; B.S. Physics

Official transcripts are not required for candidates on Buffalo State Fast Track.

In addition, all applicants should review the Admission to a Graduate Program (<http://ecatalog.buffalostate.edu/graduate/admission-graduate-program/>) section in this catalog.

Program Requirements

Code	Title	Credit Hours
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Required Courses (31-37 credit hours)

Professional Education and Science Education (15-21 credit hours)

SED 502	SECONDARY SCIENCE EDUCATION TEACHING: THEORY, CONTENT AND PEDAGOGY	3
SED 545	LITERACY FOR TEACHING SCIENCE	3
SED 650	CURRICULAR RESEARCH TOPICS IN SCIENCE	3
SED 664	TEACHING SCIENCE WITH TECHNOLOGY	3
EXE 500	INDIVIDUALS WITH SPECIAL NEEDS	3
SPF 503	EDUCATIONAL PSYCHOLOGY	3
EDU 609	RESEARCH AND PRACTICE IN ADOLESCENT LITERACY	3
<i>Practica (13 credit hours)</i>		
SED 677	INITIAL MIDDLE SCHOOL SCIENCE TEACHING EXPERIENCE	6
SED 678	INITIAL HIGH SCHOOL SCIENCE TEACHING EXPERIENCE	6
SED 679	SEMINAR IN SCIENCE EDUCATION	1
Culminating Project (3 credit hours)		
SED 690	MASTER'S PROJECT	3
Total Credit Hours		31-37