

# PHYSICS EDUCATION (7-12, M.S.ED.)

## Master of Science Education Program

Program Code: MSED-AS

Major Code: PHS

### Physics Department

Dan L. MacIsaac, Chair and Coordinator

SAMC 278

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[physics.buffalostate.edu/](http://physics.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.**

**Professional Licensure:** This program leads to a recommendation for NYS certification; please check for certification requirements in all other states (<https://academicaffairs.buffalostate.edu/professional-licensure-disclosures/>)

Applicants who do not yet meet all admissions criteria should consult with the department. The master of science in physics education is designed for teachers who wish to combine advanced work in physics with graduate work in education.

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

1. A bachelor's degree in physics from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale).
2. An application packet, including a personal statement and three letters of reference.
3. An interview may be required.
4. Initial Certificate in Physics 7-12.

In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

### Program Requirements

Code	Title	Credit Hours
<b>Requirements (22 cr hrs.)</b>		
PHY 500	PHYSICS EDUCATION RESEARCH SEMINAR	3
PHY 510	REGENT'S PHYSICS SCIENCE PRACTICES	4
PHY 620	MECHANICS FOR HIGH-SCHOOL TEACHERS	6
PHY 622	ELECTRICITY AND MAGNETISM FOR HIGH SCHOOL TEACHERS	6
PHY 690	MASTER'S PROJECT	3
<i>Elective Courses 9 cr hours (Select 3 from the following)</i>		9
PHY 511	COMPUTATIONAL PHYSICS FOR TEACHERS	
PHY 518	WAVE PHENOMENA AND OPTICS FOR TEACHERS	
PHY 520	MODERN PHYSICS FOR TEACHERS	
PHY 521	EXPERIMENTS IN MODERN PHYSICS FOR TEACHERS	
PHY 522	ENERGY: SUSTAINABILITY AND RENEWABILITY FOR TEACHERS	
PHY 525	NUCLEAR AND PARTICLE PHYSICS FOR TEACHERS	
PHY 590	INDEPENDENT STUDY	
SED 664	TEACHING SCIENCE WITH TECHNOLOGY	
SED 685	EVALUATION IN SCIENCE EDUCATION	
All courses are 3 credit hours unless otherwise indicated.		
<b>Total Credit Hours</b>		<b>31</b>