

# ADULT EDUCATION

## Master of Science Program

Program Code: MS-ED

Major Code: ADE

## Graduate Certificate Program

Program Code: GRCT-ED

Major Code: ADE

HEGIS 0807

## Educational Foundations Department

Warren L. Gleckel, *Interim Chair*

Susan K. Birden, *Program Coordinator*

Bacon Hall 306, (716) 878-3905

[www.buffalostate.edu/adulteducation](http://www.buffalostate.edu/adulteducation)

The master of science in adult education program prepares professionals for careers in adult education and human resource development. Community agencies employ adult educators to conduct literacy, personal development, and workforce-preparation programs. Similarly, businesses employ human resource development professionals to train new workers and retrain experienced workers. Graduates of the program are also well prepared for doctoral programs in adult education.

The graduate certificate in adult education is designed for professionals who desire graduate-level training in the discipline of adult education but do not need a master's degree. The graduate certificate program consists of four courses from the master of science in adult education program (12 credit hours: ADE 600, ADE 605, ADE 610, and ADE 625). Students who complete the certificate program and choose to continue their graduate studies at Buffalo State may request that certificate program courses be applied toward the master's degree in adult education. This program does not lead to teaching certification.

The master's program and certificate program are both offered on the Buffalo State campus and through distance learning technology at remote locations.

### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale), or a master's degree from an accredited institution with a minimum GPA of 3.0 (4.0 scale).
2. Applicants who hold a bachelor's degree but do not meet either of the above criteria may be admitted if they attain a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE), attain a minimum score of 45 on the Miller Analogies Test (MAT), or complete 6 credit hours of 500-level coursework at the college as an accepted premajor student with a minimum cumulative GPA of 3.5.
3. A letter describing the applicant's interest.

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

**Graduation Requirements:** A minimum of 30 credit hours, including 12 hours in an elective field specialization, selected under advisement.

The 12-credit field specialization is developed by each student and his or her academic adviser to incorporate courses from related academic disciplines. The use of courses from related disciplines greatly enriches the ability of the program to meet the needs and goals of individual students; more than 30 departments currently offer graduate courses at Buffalo State. Examples of field specializations include administration, linguistics, literacy, English as a second language, job development, workplace learning and staff development, vocational education, counseling, human resources development, student personnel administration, multiculturalism, creativity, exceptional ability, educational foundations, criminal justice, health and wellness, educational computing, and business.

Students also must complete either a written comprehensive examination or a master's project.

## Program Requirements

**Required Courses**.....18 cr

ADE 600	Adulthood and Development
ADE 605	Historical, Social, and Philosophical Foundations of Adult Education
ADE 610	Methods of Adult Education
ADE/CSP 624	Internship (in area of specialization)
ADE 625	Designing and Evaluating Programs for Adult Learners
EDF 689	Methods of Educational Research

**Elective Field Specialization Courses**.....12 cr

*Select one option:*

Four content courses plus comprehensive examination

or

Three content courses plus ADE 690 Master's Project

**Total Required Credit Hours**.....30 cr

All courses are 3 credit hours unless otherwise indicated.

# APPLIED ECONOMICS

## Master of Arts Program

Program Code: MA-NS

Major Code: AEC

HEGIS 2204

## Economics and Finance Department

Ted P. Schmidt, *Chair*

Victor Kasper Jr., *Program Coordinator and Associate Professor*

Classroom Building B204, (716) 878-5132

[www.buffalostate.edu/economics](http://www.buffalostate.edu/economics)

The master of arts in applied economics is designed for students who want to improve their understanding of economics and finance, particularly those interested in or already working in:

- Financial institutions and finance departments in business and government
- Policy-oriented and community service occupations in the private and public sectors

- Economic and financial consulting and advising
- High school business, economics, and social studies education

The program's orientation toward application as opposed to theory enhances opportunities for graduates in a broad range of occupations and institutions; however, the program has prepared students for continued education at the PhD level.

### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.7 (4.0 scale), or a master's degree from an accredited institution with a minimum cumulative GPA of 3.0 (4.0 scale).
2. Applicants who hold a bachelor's degree but do not meet either of the above criteria may be admitted if they attain a minimum combined quantitative/verbal score of 1000 on the Graduate Record Exam (GRE), attain a minimum score of 45 on the Miller Analogies Test (MAT), or complete 6 credit hours of 500-level coursework at the college as an accepted premajor student with a minimum cumulative GPA of 3.5.
3. Three letters of reference.
4. A letter describing the applicant's interest in the program.

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

**Graduation Requirements:** A minimum of 30 credit hours at the graduate level, including a minimum of 15 credit hours at the 600 level. Students also must complete required core courses and one of the following: a master's project, a master's thesis, or a comprehensive examination. A field of specialization is recommended but not required.

## Program Requirements

### Required Courses.....12 cr

ECO 505	History of Economic Thought
ECO 507	Applied Microeconomic Theory
ECO 508	Applied Macroeconomic Theory
ECO 524	Applied Econometrics

### Suggested Content Specialty Courses

A. Economic Policy Analysis Courses	
<i>Select three courses from the following:</i>	
ECO 600	Labor Economics
ECO 610	Economics of Education
ECO 612	Urban Economic Analysis
ECO 650	Public Finance
ECO 660	Cost-Benefit Analysis
B. Financial Economics Courses	
<i>Select three courses from the following:</i>	
ECO 650	Public Finance
FIN 619	Risk Management
FIN 622	Capital Markets
FIN 630	International Finance
FIN 645	Estate Planning and Taxation

### Other Elective Courses<sup>1</sup>.....3–9 cr

ECO 502	Workshop in Economic Education
ECO 510	Economics of Education
ECO 601	Engineering Economics (cross-listed as INT 601)

### Master's Project, Master's Thesis, or Comprehensive Examination .....3 cr

<i>Select one option:</i>	
ECO 690	Master's Project
ECO 695	Master's Thesis
Comprehensive Examination (0)	

### Total Required Credit Hours.....30 cr

<sup>1</sup>Selected under advisement  
All courses are 3 credit hours unless otherwise indicated.

# ART CONSERVATION

## Master of Arts Program

Program Code: MA-AH

Major Code: CNS

## Certificate of Advanced Study Program

Program Code: CAS-AH

Major Code: CNS

HEGIS 1099

### Art Conservation Department

Elizabeth S. Peña, *Chair and Director*

Rockwell Hall 230, (716) 878-5025

[www.buffalostate.edu/depts/artconservation](http://www.buffalostate.edu/depts/artconservation)

This three-year master of arts program prepares students for careers as professional conservators to care for works of artistic, historical, or cultural significance, from famous paintings to family heirlooms. The instructional program, which includes a 12-month internship at a museum or other institution, provides students with a broad background in conservation to help ensure continued professional growth throughout their careers. In their second year, students select objects, paintings, or paper conservation as a specialty. They may choose to focus on a subspecialty, such as ethnographic or archaeological objects, photographs, or books. A certificate of advanced study in art conservation is awarded with the M.A. degree.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.8 (4.0 scale).

2. Acceptable scores on the Graduate Record Examination (GRE).

3. Completion of at least the following:

- history of art—21 credit hours. At the discretion of the department, may include up to 12 credit hours of archaeology and/or ethnography/anthropology courses that emphasize material culture.
- chemistry—16 credit hours: a two-semester introductory (general) chemistry lecture course with accompanying laboratory sections and a two-semester organic chemistry sequence with accompanying laboratory sections. Chemistry courses for nonscience majors will not be accepted.
- studio art (drawing, printmaking, painting, sculpture)—9 credit hours.

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

Application Deadline: Completed admission applications must be received by the department office no later than February 1 of the year in which admission is sought.

## Program Requirements

### Required Courses.....57 cr

CNS 600	Techniques of Examination and Documentation I (2)
CNS 601	Techniques of Examination and Documentation I Laboratory (1)
CNS 602	Techniques of Examination and Documentation II (2)
CNS 603	Techniques of Examination and Documentation II Laboratory (1)
CNS 604	Techniques of Examination and Documentation III (2)
CNS 605	Techniques of Examination and Documentation III Laboratory (1)
CNS 606	Techniques of Examination and Documentation IV (2)
CNS 607	Techniques of Examination and Documentation IV Laboratory (1)
CNS 610	Conservation Science: Properties and Behavior of Materials; Methods of Analysis I (2)
CNS 611	Conservation Science: Properties and Behavior of Materials; Methods of Analysis I Laboratory (1)
CNS 612	Conservation Science: Properties and Behavior of Materials; Methods of Analysis II (2)
CNS 613	Conservation Science: Properties and Behavior of Materials; Methods of Analysis II Laboratory (1)
CNS 614	Conservation Science: Properties and Behavior of Materials; Methods of Analysis III (3)
CNS 615	Conservation Science: Properties and Behavior of Materials; Methods of Analysis III Laboratory (1)
CNS 616	Conservation Science: Properties and Behavior of Materials; Methods of Analysis IV (3)
CNS 617	Conservation Science: Properties and Behavior of Materials; Methods of Analysis IV Laboratory (1)
CNS 620	Technology and Conservation of Paintings I (2)
CNS 621	Technology and Conservation of Paintings I Laboratory (1)
CNS 622	Technology and Conservation of Paintings II (2)
CNS 623	Technology and Conservation of Paintings II Laboratory (1)
CNS 624	Technology and Conservation of Paintings III (2)
CNS 630	Technology and Conservation of Works of Art on Paper I (2)
CNS 631	Technology and Conservation of Works of Art on Paper I Laboratory (1)
CNS 632	Technology and Conservation of Works of Art on Paper II (2)
CNS 633	Technology and Conservation of Works of Art on Paper II Laboratory (1)
CNS 634	Technology and Conservation of Works of Art on Paper III (2)
CNS 640	Technology and Conservation of Objects I (2)
CNS 641	Technology and Conservation of Objects I Laboratory (1)
CNS 642	Technology and Conservation of Objects II (2)
CNS 643	Technology and Conservation of Objects II Laboratory (1)
CNS 644	Technology and Conservation of Objects III (2)
CNS 685	Professionalism in Conservation I (2)
CNS 686	Professionalism in Conservation II (1)
CNS 695	Student Specialization Project (4)

### Elective Courses<sup>1</sup>.....4 cr

<i>Select one course from the following:</i>	
CNS 626	Technology and Conservation of Paintings IV (4)
CNS 636	Technology and Conservation of Works of Art on Paper IV (4)
CNS 646	Technology and Conservation of Objects IV (4)

### Internship<sup>1</sup>.....12 cr

CNS 698	Internship Sustaining (0)
CNS 699	Internship (12)

### Final Examination .....0 cr

May be oral and/or written.

### Total Required Credit Hours .....73 cr

<sup>1</sup>Selected under advisement

# ART EDUCATION (K–12)

## Master of Science in Education Program

Program Code: MSED-AH

Major Code: AED

HEGIS 0831

### Art Education Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

National Association of Schools of Art and Design (NASAD) Accredited

Mary L. Wyrick, *Chair*

Bishop Hall 103, (716) 878-4106

www.buffalostate.edu/arteducation

The Art Education Department offers graduate studies that lead to a master of science in art education and eligibility to apply for New York State permanent/professional certification to teach art in grades kindergarten–12. This certifying degree program requires 30 credit hours of study and enables students to acquire competence in theory, research, and methodology in art. Within the required program format, students are encouraged to pursue individualized programs of study.

**Advisement:** Academic advisers are assigned by the department and should be consulted at all decision points; however, students remain responsible for fulfilling department and college requirements specific to the program.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale) in the major area of study and 2.5 overall, or a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE).

2. Submit a copy of a New York State Certificate of Qualification (CQ), provisional certificate, or initial certificate to teach art. If you are a recent graduate or are just completing your undergraduate program at the time of application, you must submit documentation showing that you have completed all requirements for certification (i.e., copies of test scores and certificates of workshop completion).

3. An interview with the Art Education Department chair.

Requests for exceptions to admission requirements may be directed to the department chair. In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

### Program Requirements

**Required Courses** .....6 cr

AED 688 Seminar  
AED 689 Research

**Content Specialty Courses**<sup>1</sup> .....15–21 cr

Art education, fine arts, design

**General Studies Courses**<sup>1</sup> .....0–6 cr

**Master's Project or Master's Thesis**<sup>1</sup> .....3–6 cr

AED 690 Master's Project  
AED 695 Master's Thesis (6)

**Total Required Credit Hours** .....30 cr

<sup>1</sup>*Selected under advisement*

All courses are 3 credit hours unless otherwise indicated.

# ART EDUCATION

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-AH

Major Code: AED

HEGIS 0831

### Art Education Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

National Association of Schools of Art and Design (NASAD) Accredited

Mary L. Wyrick, *Chair*

Bishop Hall 103, (716) 878-4106

www.buffalostate.edu/arteducation

This program is designed for students who have earned a baccalaureate degree with coursework in fine arts, design, and/or art education from an accredited college or university and intend to complete the coursework required for New York State certification to teach art. After successfully completing the teacher-certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

Students are expected to complete the entire sequence of coursework and are responsible for any additional certification requirements established by the New York State Teacher Certification Division, including fingerprinting and at least four state-mandated seminars. Students in the program may elect to attend part time or full time, except during the student teaching semester. Courses are offered each semester (excluding summer) during the day to accommodate practical experiences in public schools.

**Financial Assistance:** For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

**Admission Requirements:** A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale) in the major area of study (fine arts, design, and/or art education) and 2.5 overall.

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

### Program Requirements

**First Semester** .....12 cr

AED 200 Fundamentals of Art Inquiry  
AED 300W Foundations in Art Education  
AED 301W Theoretical Constructs in Art Education  
AED 398 Computer Applications for Art Educators

**Second Semester** .....9 cr

AED 302W Functions and Practices in Art Education  
AED 315 Arts in Living  
ATS 325 Art and Special Needs

**Third Semester** .....15 cr

AED 303 Elementary Student Teaching in Art (6)  
AED 304 Secondary Student Teaching in Art (6)  
AED 400 Student Teaching Seminar

**Total Required Credit Hours** .....36 cr

All courses are 3 credit hours unless otherwise indicated.

# BIOLOGY

## Master of Arts Program

Program Code: MA-NS

Major Code: BIO

HEGIS 0401

### Biology Department

Gregory J. Wadsworth, *Chair*

Science Building 314, (716) 878-5203

www.buffalostate.edu/biology

The master of arts in biology prepares students for advanced research, professional employment, or study at the Ph.D. level.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale), or a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE). The GRE general test is required; the GRE subject test in biology (B24) is strongly recommended.

2. Three letters of recommendation evaluating the applicant's academic qualifications.

3. An official transcript of the student's undergraduate program, giving evidence of satisfactory completion of 48 credit hours of college science and mathematics courses, including a minimum of 18 credit hours in biology. It is strongly recommended that this coursework also include one year of college physics, one year of organic chemistry, one semester of statistics, and one semester of calculus. The student's thesis committee may regard failure to complete these recommended undergraduate courses as a deficiency and may require such coursework for graduation.

4. A written statement of the applicant's academic background, future plans, and area of research interest.

Each applicant is strongly advised to identify a faculty sponsor and request a letter of support from him or her to accompany the admission application.

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

#### Graduation Requirements:

1. A minimum cumulative GPA of 3.0 (4.0 scale). The candidate may take no more than 36 credit hours to achieve this average.

2. A minimum of 30 credit hours, including a 6-credit-hour master's thesis. Courses in which a candidate earns a grade below C do not bear credit toward the degree but are calculated in the cumulative average.

3. Successful oral presentation of the master's thesis. The thesis must represent an original contribution to biology.

4. Two semesters of Research Seminar (BIO 617).

### Program Requirements

Biology Courses <sup>1</sup> .....	22 cr
Research .....	2 cr
BIO 617      Research Seminar (1)	
Master's Thesis.....	6 cr
BIO 695      Master's Thesis (6)	
<b>Total Required Credit Hours</b> .....	<b>30 cr</b>

<sup>1</sup>Selected under advisement

# BIOLOGY EDUCATION (7-12)

## Master of Science in Education Program

Program Code: MSED-NS

Major Code: BIS

HEGIS 0401.01

### Biology Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Gregory J. Wadsworth, *Chair*

Science Building 314, (716) 878-5203

www.buffalostate.edu/biology

The master of science in biology education is designed for teachers who wish to combine advanced work in biology with graduate work in education.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale), or a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE). The GRE general test is required; the GRE subject test in biology (B24) is strongly recommended.

2. A New York State Certificate of Qualification (CQ), provisional certificate, or initial certificate to teach science, or an approved equivalent.

3. Three letters of recommendation evaluating the applicant's academic qualifications.

4. An official transcript of the student's undergraduate program showing evidence of completion of at least 18 credit hours in biology and satisfactory preparation in chemistry, physics, and mathematics.

5. A written statement of the applicant's academic background and career goals.

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

#### Graduation Requirements:

1. A minimum cumulative GPA of 3.0 (4.0 scale). The candidate may take no more than 36 credit hours to achieve this average.

2. A minimum of 30 credit hours. Courses in which a candidate earns a grade below C do not bear credit toward the degree but are calculated in the cumulative average.

3. Successful oral presentation of the written master's project or thesis.

### Program Requirements

Biology Courses <sup>1</sup> .....	12-15 cr
BIO 6XX	
Science Education Courses .....	9 cr
SCI 628      Seminar in Secondary Science Education	
SCI 632      Curricular Trends in Secondary School Science	
SCI 685      Evaluation in Science Education	
Elective Course.....	3 cr
BIO 5XX or BIO 6XX	
Master's Project or Master's Thesis .....	3-6 cr
Select one option:	
BIO 690      Master's Project	
BIO 695      Master's Thesis (6)	
<b>Total Required Credit Hours</b> .....	<b>30 cr</b>

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

# BIOLOGY EDUCATION (7–12)

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: BGS

HEGIS 0401.01

### Biology Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Gregory J. Wadsworth, *Chair*

Science Building 314, (716) 878-5203

www.buffalostate.edu/biology

The biology education (7–12) postbaccalaureate teacher certification program leads to eligibility for a New York State initial certificate to teach both biology and general science in grades 7–12. This program is designed for students who have earned a baccalaureate degree in biology or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach biology in secondary schools or general science in middle schools.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

A minimum GPA of 2.75 in required biology courses is needed for admission to SED 405, SED 407, and SED 408.

**Financial Assistance:** For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

**Admission Requirements:** A bachelor's degree in biology or a related area from an accredited college or university with a minimum GPA of 2.75 (4.0 scale) in required biology courses.

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

### Program Requirements

#### Required Biology Courses .....27 cr

*Or equivalents:*

BIO 211	Introduction to Cell Biology and Genetics (4)
BIO 212	Introduction to Organismal Biology and Diversity (4)
BIO 213	Introduction to Ecology, Evolution, and Behavior (4)
BIO 303	Genetics (4)
BIO 315	Ecology (4)
BIO 405	Organic Evolution

*Select one course from the following:*

BIO 308/BIO 309	Human Anatomy and Physiology and Laboratory (4)
BIO 402	Comparative Animal Physiology (4)

#### Elective Biology Course .....3 cr

Any upper-division biology course except BIO 322 or BIO 324

#### Professional Education Courses .....24 cr

EDF 303	Educational Psychology
EDU 416	Teaching Literacy in Middle and Secondary Schools
EXE 372	Foundations of Teaching Adolescents with Disabilities
SCI 445	Literacy for Teaching Science
SED 200	Field Experience in Secondary Science Education
SED 401	Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
SED 405	Methods and Materials for Teaching Secondary School Science
SED 409	Seminar in Secondary Science Education

#### Student Teaching Courses .....12 cr

SED 407	Practice Teaching Science in the Middle School (6)
SED 408	Practice Teaching Science in the High School (6)

#### Courses or Equivalent Courses in Other Fields for Certification.....35–36 cr

- A. Foreign Language Courses (6 cr)  
One year or equivalent
- B. Cognate Science Courses (23 cr)  
CHE 111/CHE 112 Fundamentals of Chemistry I and II (8)  
GES 101 Introductory Geology  
GES 103 Introductory Geology Laboratory (1)  
PHY 111/PHY 112 University Physics I and II (8)
- Select one course from the following:*  
GES 111 General Oceanography  
GES 131 Introductory Astronomy  
GES 241 Meteorology
- C. Mathematics Courses (6–7 cr)  
BIO 300 Biostatistics (or equivalent) (4)  
MAT 126 Calculus (or equivalent)

#### Total Required Credit Hours .....101–102 cr

All courses are 3 credit hours unless otherwise indicated.

# BIOLOGY EDUCATION (7–12; 5–6 EXTENSION)

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: BGX

HEGIS 0401.01

### Biology Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Gregory J. Wadsworth, *Chair*

Science Building 314, (716) 878-5203

www.buffalostate.edu/biology

The biology education (7–12 with 5–6 extension) postbaccalaureate teacher-certification program leads to eligibility for a New York State initial certificate to teach both biology and general science in grades 5–12. This program is designed for students who have earned a baccalaureate degree in biology or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach biology in secondary schools or general science in middle schools.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

A minimum GPA of 2.75 in required biology courses is needed for admission to SED 405, SED 407, and SED 408.

**Financial Assistance:** For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

**Admission Requirements:** A bachelor's degree in biology or a related area from an accredited college or university with a minimum GPA of 2.75 (4.0 scale) in required biology courses.

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

## Program Requirements

### Required Biology Courses .....27 cr

*Or equivalents:*

BIO 211	Introduction to Cell Biology and Genetics (4)
BIO 212	Introduction to Organismal Biology and Diversity (4)
BIO 213	Introduction to Ecology, Evolution, and Behavior (4)
BIO 303	Genetics (4)
BIO 315	Ecology (4)
BIO 405	Organic Evolution

*Select one course from the following:*

BIO 308/BIO 309	Human Anatomy and Physiology and Laboratory (4)
BIO 402	Comparative Animal Physiology (4)

### Elective Biology Course .....3 cr

Any upper-division biology course except BIO 322 or BIO 324

### Professional Education Courses .....30 cr

EDF 303	Educational Psychology
EDU 416	Teaching Literacy in Middle and Secondary Schools
EXE 372	Foundations of Teaching Adolescents with Disabilities
SCI 323	Science as Inquiry
SCI 445	Literacy for Teaching Science
SED 200	Field Experience in Secondary Science Education
SED 310	Teaching Science in a Middle School
SED 401	Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
SED 405	Methods and Materials for Teaching Secondary School Science
SED 409	Seminar in Secondary Science Education

### Student Teaching Courses .....12 cr

SED 407	Practice Teaching Science in the Middle School (6)
SED 408	Practice Teaching Science in the High School (6)

### Courses or Equivalent Courses in Other Fields for Certification.....36 cr

A.	Foreign Language Courses (6 cr) One year or equivalent
B.	Cognate Science Courses (23 cr) CHE 111/CHE 112 Fundamentals of Chemistry I and II (8) GES 101 Introductory Geology GES 103 Introductory Geology Laboratory (1) PHY 111/PHY 112 University Physics I and II (8)  Select one course from the following: GES 111 General Oceanography GES 131 Introductory Astronomy GES 241 Meteorology
C.	Mathematics Courses (6-7 cr) BIO 300 Biostatistics (or equivalent) (4) MAT 126 Calculus (or equivalent)

### Total Required Credit Hours.....107-108 cr

All courses are 3 credit hours unless otherwise indicated.

# BUSINESS AND MARKETING EDUCATION

## Master of Science in Education Program

Program Code: MSED-ED

Major Code: BME

HEGIS 0838.01

### Educational Foundations Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Warren L. Gleckel, *Interim Chair*

N. John Popovich, *Program Coordinator and Associate Professor*

Bacon Hall 306, (716) 878-4717

[www.buffalostate.edu/educationalfoundations](http://www.buffalostate.edu/educationalfoundations)

The business and marketing education program is designed to develop, extend, and enhance the professional competencies of business and marketing education teachers. Completion of the program provides a master of science in education degree and satisfies the requirements for eligibility to apply for permanent/professional certification to teach business and marketing in New York State.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale).
2. A New York State Certificate of Qualification (CQ), provisional certificate, or initial certificate to teach business or distributive education.
3. An updated résumé.
4. Two letters of recommendation to the program.
5. An essay describing the applicant's interest in teaching, as well as business and educational background.

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

### Program Requirements

#### Required Professional Courses .....18 cr

BME 600	Principles of Business and Marketing Education
BME 601	Research Seminar
or	
EDF 689	Methods and Techniques of Educational Research
BME 602	Curriculum Development and Planning in Business and Marketing Education
BME 604	Improving Instruction in Business and Marketing
BME 605	Evaluation in Business and Marketing Education
CTE 690 or EDF 690	Master's Project

#### Elective Courses .....15 cr

Appropriate courses that allow students to form a concentration in a specific area, such as curriculum or business. A minimum of 6 credit hours must be in business.

#### Total Required Credit Hours .....33 cr

All courses are 3 credit hours unless otherwise indicated.

# BUSINESS AND MARKETING EDUCATION

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-ED

Major Code: BME

HEGIS 0838

### Educational Foundations Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Warren L. Gleckel, *Interim Chair*

N. John Popovich, *Program Coordinator and Associate Professor*

Bacon Hall 306, (716) 878-4717

www.buffalostate.edu/educationalfoundations

This program is designed for students who have earned a baccalaureate or master's degree in business and marketing education or a business-related field from an accredited college or university, and intend to complete the coursework required for New York State certification to teach business and marketing in secondary schools. After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

**Financial Assistance:** For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

#### Admission Requirements:

1. A bachelor's or master's degree from an accredited college or university, with a concentration of at least 36 credit hours in business and marketing education or related courses, with a minimum GPA of 2.5 (4.0 scale). The department will accept up to 6 credit hours in computer information systems and/or economics. All other courses should match the required courses in the undergraduate business and marketing education program.
2. An updated résumé.
3. Two letters of recommendation to the Educational Foundations Department.
4. An essay indicating the applicant's interest in teaching, as well as business and marketing education and educational background.

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

### Program Requirements

**Business and Marketing Education Courses** .....36 cr

Accepted courses per review of Business Department

**Professional Courses** .....33 cr

BME 301	Principles of Business and Marketing Education
BME 302	Curriculum and Evaluation in Business and Marketing Education
BME 303	Instructional Strategies in Business and Marketing Education
BME 411	Applied Teaching Methods in Business and Marketing
BME 415	Student Teaching (6)
BME 416	Student Teaching (6)
EDF 303	Educational Psychology
EDU 416	Teaching Literacy in Secondary Schools
EXE 100	Nature and Needs of Individuals with Special Needs

**Total Required Credit Hours** .....69 cr

All courses are 3 credit hours unless otherwise indicated.

# CAREER AND TECHNICAL EDUCATION

## Master of Science in Education

Program Code: MSED-ED

Major Code: CTE

HEGIS 0839.03

### Educational Foundations Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Warren L. Gleckel, *Interim Chair*

N. John Popovich, *Program Coordinator and Associate Professor*

Bacon Hall 306, (716) 878-4717

www.buffalostate.edu/educationalfoundations

The master's program in career and technical education (CTE) extends and improves the professional competencies of CTE teachers. Candidates interested in becoming certified as coordinators of diversified cooperative work-study programs may take the two related required courses: CTE 550 and CTE 555.

**Advisement:** Students are assigned academic advisers to plan programs based on individual needs and degree requirements. All courses should be selected by advisement.

**Admission Requirement:** A New York State certificate for teaching a CTE subject.

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

This program is currently under revision. Contact the department for the most current information.

### Program Requirements

**Required Courses** .....6 cr

BUS 602/BUS 603	Curriculum Development and Planning in Business and Marketing Education
EDF 611	Evaluation in Occupational Education

**Elective Courses** .....15–18 cr

Select five to six courses from the following:

CTE 530	Career Education: Rationale, Nature, and Concepts
CTE 536	Contemporary Methodology
CTE 550	Organization of Diversified Cooperative Work-Study Programs
CTE 555	Operation of Diversified Cooperative Work-Study Programs
CTE 600	Contemporary Issues in Occupational Education
CTE 601	Supervision of Vocational Education
CTE 602	Administration of Vocational Education
CTE 603	Selected Topics in the Organization, Administration, and Supervision of CTE
CTE 604	Technical Project
CTE 606	History and Philosophy of Occupational Education
CTE 620	Structure of Occupational Programs
CTE 625	Interrelationships of Labor, Management, and Occupational Education

**Research and Master's Project or Master's Thesis** .....6–9 cr

BUS 601/EDF 689	Research Seminar: Occupational Education
CTE 690	Master's Project
or	
CTE 695	Master's Thesis (6)

**Total Required Credit Hours** .....30 cr

All courses are 3 credit hours unless otherwise indicated.

# CAREER AND TECHNICAL EDUCATION

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-ED

Major Code: CTE

HEGIS 0839.03

### Educational Foundations Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Warren L. Gleckel, *Interim Chair*

N. John Popovich, *Program Coordinator and Associate Professor*

Bacon Hall 306, (716) 878-4717

www.buffalostate.edu/educationalfoundations

This program is designed for students who have earned a baccalaureate degree in an area other than career and technical education (CTE) from an accredited college or university, and intend to complete the coursework required for New York State certification as a career and technical teacher.

This postbaccalaureate teacher certification program prepares career and technical teachers for teaching positions in high schools, vocational schools, technical institutes, correctional facilities, and community colleges. It provides theoretical and practical preparation in planning, instructing, and managing the learning environment for students who have or will have extensive work experience in a specific trade.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

This program is offered during the evening at Buffalo State. Some courses are offered via interactive distance learning at off-campus BOCES sites.

**Financial Assistance:** For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university in an area other than career and technical education, with a minimum cumulative GPA of 2.5 (4.0 scale).

2. Minimum of one year of work experience in a CTE area.

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

### Program Requirements

**Occupational Competency Exams** .....30 cr

CTE 100 Theory (or equivalent) (15)  
CTE 200 Practice (or equivalent) (15)

**Required Courses** .....36 cr

CTE 301 Foundations of Career and Technical Subjects Education  
CTE 302 Course Organization  
CTE 306 Laboratory Management  
CTE 311 Career Mentoring Internship  
CTE 350 School and Community Relationship Field Experience  
CTE 402 Assessment Techniques in Career and Technical Subjects  
CTE 404 Methods of Teaching Career and Technical Subjects  
CTE 413 Student Teaching in Career and Technical Education (6)  
CTE 421 Occupational Education for Individuals with Special Needs  
EDF 303 Educational Psychology  
EDF 353 Human Development during Early Adolescence  
ENG 470 Foundation of Language

**Total Required Credit Hours** .....36-66 cr

All courses are 3 credit hours unless otherwise indicated.

# CHEMISTRY EDUCATION (7-12)

## Master of Science in Education Program

Program Code: MSED-NS

Major Code: CHS

HEGIS 1905.01

### Chemistry Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

M. Scott Goodman, *Chair*

Science Building 313, (716) 878-5204

www.buffalostate.edu/chemistry

The master of science in chemistry education (7-12) is designed for teachers who wish to combine advanced work in chemistry with graduate work in education.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.6 (4.0 scale) in chemistry courses.

2. A New York State Certificate of Qualification (CQ), provisional certificate, or initial certificate to teach at the secondary level.

3. A minimum of 24 credit hours of undergraduate chemistry courses, including one year of physical chemistry.

4. A minimum of one year each of calculus, general physics, biology, and geosciences.

5. Three letters of recommendation.

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

### Program Requirements

**Required Courses** .....9 cr

#### Select from the following:

CHE 540 Special Topics in Organic Chemistry  
CHE 550 Advanced Physical Chemistry (4)  
CHE 560 Special Topics in Inorganic Chemistry  
CHE 620 Kinetics and Reaction Mechanisms (4)  
CHE 625 Physical Methods of Structure Determination (4)  
CHE 630 Advanced Synthetic Techniques (5)  
CHE 670 Biomolecules: Proteins, Nuclear Acids, and Enzymes  
CHE 680 Advanced Analytical Chemistry

**Science Education Courses** .....9 cr

SCI 628 Seminar in Secondary Science Education  
SCI 632 Curricular Trends in Science Teaching in the Secondary School  
SCI 685 Evaluation in Science Education

**Elective Courses** .....3-6 cr

**Research and Master's Project or Master's Thesis** .....6 cr

#### Select from the following:

CHE 690\* Master's Project in Chemistry  
and  
SCI 694 Research Methods and Techniques in Science Education

or  
CHE 795\* Master's Thesis in Chemistry (6)

\*Can be counted toward both the 15-credit chemistry requirement and the 6-credit research requirement.

**Total Required Credit Hours** .....30 cr

All courses are 3 credit hours unless otherwise indicated.

# CHEMISTRY EDUCATION (7–12)

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: CGS

HEGIS 1905.01

### Chemistry Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

M. Scott Goodman, *Chair*

Science Building 313, (716) 878-5204

[www.buffalostate.edu/chemistry](http://www.buffalostate.edu/chemistry)

The chemistry education (7–12) postbaccalaureate teacher certification program leads to eligibility for a New York State initial certificate to teach both chemistry and general science in grades 7–12.

This program is designed for students who have earned a baccalaureate degree in chemistry or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach chemistry in secondary schools or general science in middle schools.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

A minimum GPA of 2.75 in required chemistry courses is needed for admission to SED 405, SED 407, and SED 408.

**Financial Assistance:** For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

**Admission Requirements:** A bachelor's degree in chemistry or a related area from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale) in required chemistry courses.

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

### Program Requirements

#### Required Chemistry Courses .....42 cr

*Or equivalents:*

CHE 111/CHE 112	Fundamentals of Chemistry I and II (8)
CHE 201/CHE 202	Organic Chemistry I and II (6)
CHE 203/CHE 204	Organic Chemistry Laboratory I and II (2)
CHE 301	Analytical Chemistry (4)
CHE 305/CHE 306	Physical Chemistry I and II (6)
CHE 307/CHE 308	Physical Chemistry Laboratory I and II (2)
CHE 310	Literature of Chemistry (1)
CHE 403	Instrumental Analysis (4)
CHE 460	Inorganic Chemistry
CHE 461	Inorganic Chemistry Laboratory (2)
CHE 470	Biochemistry
CHE 471	Biochemistry Techniques (1)

#### Professional Education Courses .....24 cr

EDF 303	Educational Psychology
EDU 416	Teaching Literacy in Middle and Secondary Schools
EXE 372	Foundations of Teaching Adolescents with Disabilities
SCI 445	Literacy for Teaching Science (or equivalent)
SED 200	Field Experience in Secondary Science Education
SED 401	Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
SED 405	Methods and Materials for Teaching Secondary School Science
SED 409	Seminar in Secondary Science Education

#### Student Teaching Courses .....12 cr

SED 407	Practice Teaching Science in the Secondary School I (6)
SED 408	Practice Teaching Science in the Secondary School II (6)

#### Courses in Other Fields for Certification .....38 cr

A. Foreign Language Courses (6 cr)  
One year or equivalent

B. Cognate Science Courses (23 cr)

GES 101	Introductory Geology
GES 103	Introductory Geology Laboratory (1)
PHY 111/PHY 112	University Physics I and II (8)

*Select two courses from the following:*

BIO 211	Introduction to Cell Biology and Genetics (4)
BIO 212	Introduction to Organismal Biology and Diversity (4)
BIO 213	Introduction to Ecology, Evolution, and Behavior (4)

*Select one course from the following:*

GES 111	General Oceanography
GES 131	Introductory Astronomy
GES 241	Meteorology

C. Mathematics Courses (9 cr)

MAT 161	Calculus I
MAT 162	Calculus II
MAT 263	Calculus III

#### Total Required Credit Hours .....116 cr

<sup>1</sup>*Selected under advisement*

All courses are 3 credit hours unless otherwise indicated.

# CHEMISTRY EDUCATION (7–12; 5–6 EXTENSION)

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: CGX

HEGIS 1905.01

### Chemistry Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

M. Scott Goodman, *Chair*

Science Building 313, (716) 878-5204

[www.buffalostate.edu/chemistry](http://www.buffalostate.edu/chemistry)

The chemistry education (7–12 with 5–6 extension) postbaccalaureate teacher certification program leads to eligibility for a New York State initial certificate to teach both chemistry and general science in grades 5–12.

This program is designed for students who have earned a baccalaureate degree in chemistry or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach chemistry in secondary schools or general science in middle schools.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

A GPA of 2.75 in required chemistry courses is needed for admission to SED 405, SED 407, and SED 408.

**Financial Assistance:** For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

**Admission Requirements:** A bachelor's degree in chemistry or a related area from an accredited college or university with a minimum GPA of 2.75 (4.0 scale) in required chemistry courses.

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

## Program Requirements

### Required Chemistry Courses .....42 cr

Or equivalents:

CHE 111/CHE 112	Fundamentals of Chemistry I and II (8)
CHE 201/CHE 202	Organic Chemistry I and II (6)
CHE 203/CHE 204	Organic Chemistry Laboratory I and II (2)
CHE 301	Analytical Chemistry (4)
CHE 305/CHE 306	Physical Chemistry I and II (6)
CHE 307/CHE 308	Physical Chemistry Laboratory I and II (2)
CHE 310	Literature of Chemistry (1)
CHE 405	Instrumental Analysis (4)
CHE 460	Inorganic Chemistry
CHE 461	Inorganic Chemistry Laboratory (2)
CHE 470	Biochemistry
CHE 471	Biochemistry Techniques (1)

### Professional Education Courses .....30 cr

EDF 303	Educational Psychology
EDU 416	Teaching Literacy in Middle and Secondary Schools
EXE 372	Foundations of Teaching Adolescents with Disabilities
SCI 323	Science as Inquiry
SCI 445	Literacy for Teaching Science (or equivalent)
SED 200	Field Experience in Secondary Science Education
SED 310	Teaching Science in a Middle School
SED 401	Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
SED 405	Methods and Materials for Teaching Secondary School Science
SED 409	Seminar in Secondary Science Education

### Student Teaching Courses .....12 cr

SED 407	Practice Teaching Science in the Secondary School (6)
SED 408	Practice Teaching Science in the Secondary School (6)

### Courses in Other Fields for Certification .....38 cr

#### A. Foreign Language Courses (6 cr)

One year or equivalent

#### B. Cognate Science Courses (23 cr)

GES 101	Introductory Geology
GES 103	Introductory Geology Laboratory (1)
PHY 111/PHY 112	University Physics I and II (8)

Select two courses from the following:

BIO 211	Introduction to Cell Biology and Genetics (4)
BIO 212	Introduction to Organismal Biology and Diversity (4)
BIO 213	Introduction to Ecology, Evolution, and Behavior (4)

Select one course from the following:

GES 111	General Oceanography
GES 131	Introductory Astronomy
GES 241	Meteorology

#### C. Mathematics Courses (9 cr)

MAT 161	Calculus I
MAT 162	Calculus II
MAT 263	Calculus III

### Total Required Credit Hours .....122 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

# CHILDHOOD AND EARLY CHILDHOOD CURRICULUM AND INSTRUCTION

## Master of Science in Education Program

Program Code: MSED-ED

Major Code: CUR

HEGIS 0829

## Elementary Education and Reading Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Wendy A. Paterson, *Chair*

Ellen S. Friedland, *Assistant Chair for Graduate Programs*

Bacon Hall 302, (716) 878-5916

[www.buffalostate.edu/elementaryeducation](http://www.buffalostate.edu/elementaryeducation)

Teachers with New York State initial teaching certification in childhood or early childhood education, or provisional teacher certification in elementary education may apply for admission to the master's program in curriculum and instruction. Students who successfully complete this master of science in education program may apply for professional teaching certification (for those with initial certification) or permanent teaching certification (for those with provisional certification) from the New York State Department of Education.

### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale), or a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE).

2. A New York State Certificate of Qualification (CQ) or provisional certification in elementary education, or initial certification in childhood or early childhood education. Recent graduates or students who are completing their undergraduate programs at the time of application should write in the anticipated date of certification on the admission application. Students must submit a copy of certification to the Elementary Education and Reading Department by the time they apply for degree candidacy (after completing 6 credits and before completing 12 credits).

3. A word-processed statement addressing the following:

- Professional goals for the specific program to which they are applying.
- Related professional experiences.

The statement will be evaluated according to the following criteria:

- Organization
- Conventions of language
- Content

Note: Please sign and date the statement.

4. Three letters of reference on special department forms that attest to the applicant's potential as a graduate student. Please note that two references must be from college professors/instructors. Department forms may be downloaded at [www.buffalostate.edu/graduateschool/admissions](http://www.buffalostate.edu/graduateschool/admissions).

These are the minimum criteria for admission; satisfaction of these criteria does not guarantee admission to the program. In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

## Program Requirements

### Seminar .....3cr

EDU 501	Seminar for the Reflective Teacher (to be taken early in the program)
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## CHILDHOOD AND EARLY CHILDHOOD CURRICULUM AND INSTRUCTION *continued*

### Multicultural Perspectives and Diversity Courses .....6 cr

Select one course from category A and one course from category B:

#### Category A

EDF 500	Multicultural Education
EDU 620	Teaching and Learning in Diverse Elementary School Classrooms
SSE 640	The Sociohistorical Context and Issues of Diversity in American Schooling

#### Category B

EDF 528	Human Relations
EDF 641	Social Foundations of Education
EDF 645	Social Influences on Teaching and Learning
EDU/EXE 577	Teaching Individuals with Exceptionalities in Regular Classroom
EXE 500	Individuals with Special Needs (cannot be taken by Buffalo State graduates)
SOC 506	Minorities in American Culture

### Curriculum and Instructional Development Courses.....9 cr

Select three courses from the following:

EDC 600	Multimedia for Educators
EDC 604	Authoring for Educators
EDC 606	Internet for Educators
EDF 503	Educational Psychology
EDF 611	Evaluation in Education
EDU 513	Survey of Basic Concepts of Elementary Reading Instruction
EDU 534	Holistic Curriculum
EDU 535	Teaching Writing in the Elementary School
EDU 543	Curriculum for the Young Child
EDU 546	Improvement of Instruction in Language Arts
EDU 554	Social Studies in the Elementary School
EDU 574	Elementary School Curriculum
EDU 581	Enhancing and Integrating Elementary Science Instruction
EDU 609	Improving Reading in the Content Areas
EDU 611	Literacy in the Primary Grades
EDU 612	Developing Literacy through Literature
EDU 613	Assessment of English Language Arts for the Classroom Teacher
EDU 640	Conflict Resolution and Peaceable Schools
EDU 651	Improving Mathematics in the Elementary School
EDU 671	Constructing Science Understanding in the Elementary School
EDU 672	The Microcomputer in the Instructional Program
MED 600	Contemporary Mathematics Curriculum Developments
SCI 521	Lab Techniques for Elementary School Teachers
SSE 502	Teaching Social Studies

### Content Distribution Courses .....12 cr

Select one course in each category from the department list:

- A. English language arts
- B. Social studies, history, geography, economics, or government
- C. Mathematics
- D. Science: biology, chemistry, earth science, or physics

A current list of acceptable courses is available from the department or at [www.buffalostate.edu/elementaryeducation](http://www.buffalostate.edu/elementaryeducation).

### Research and Master's Project .....6 cr

EDF 689	Methods and Techniques of Educational Research
EDU 690	Master's Project

### Total Required Credit Hours .....36 cr

All courses are 3 credit hours unless otherwise indicated.

## CHILDHOOD EDUCATION (GRADES 1–6)

### Master of Science in Education Program

Program Code: MSED-ED

Major Code: CED

HEGIS 0802

*Note: This program is subject to change pending revisions.*

### Elementary Education and Reading Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Wendy A. Paterson, *Chair*

Ellen S. Friedland, *Assistant Chair for Graduate Programs*

Bacon Hall 302, (716) 878-5916

[www.buffalostate.edu/elementaryeducation](http://www.buffalostate.edu/elementaryeducation)

Teachers with New York State initial teaching certification in early childhood education may apply for admission to the master's program in childhood education. Students who successfully complete this master of science in education program may apply for professional teaching certification from the New York State Department of Education.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale), or a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE).

2. New York State initial certification in early childhood. Recent graduates or those who are just completing their undergraduate program at the time of application must write in the anticipated date of certification on the admission application. Submit a copy of certification to the Elementary Education and Reading Department by the time of application for degree candidacy (after completing 6 credits and before completing 12 credits).

3. A word-processed statement addressing the following:

- a) Professional goals for the specific program to which the student is applying
- b) Related professional experiences.

Statements will be evaluated according to the following criteria:

- Organization
- Conventions of language
- Content

Note: Please sign and date the statement.

4. Three letters of reference on special department forms that attest to the applicant's potential as a graduate student. Please note that two references must be from college professors/instructors. Department forms may be downloaded at [www.buffalostate.edu/graduateschool/admissions](http://www.buffalostate.edu/graduateschool/admissions).

These are the minimum criteria for admission; satisfaction of these criteria does not guarantee admission to the program. In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

## Program Requirements

**Seminar** ..... 3 cr  
 EDU 501 Seminar for the Reflective Teacher (to be taken early in the program)

**Multicultural Perspectives and Diversity Courses** ..... 6 cr  
*Select one course from category A and one course from category B:*

### Category A

EDF 500 Multicultural Education  
 EDU 620 Teaching and Learning in Diverse Elementary School Classrooms  
 SSE 640 The Sociohistorical Context and Issues of Diversity in American Schooling

### Category B

EDF 641 Social Foundations of Education  
 EDF 645 Social Influences on Teaching and Learning  
 EDU/EXE 577 Teaching Individuals with Exceptionalities in Regular Classroom  
 EXE 500 Individuals with Special Needs (cannot be taken by Buffalo State graduates)  
 SOC 506 Minorities in American Culture

**Foundation Courses** ..... 3 cr  
*Select one course from the following:*

EDF 503 Educational Psychology  
 EDF 528 Human Relations  
 EDF 611 Evaluation in Education

**Curriculum Courses** ..... 6 cr  
*Select two courses from the following:*

EDU 534 Holistic Curriculum  
 EDU 551 Improving Mathematics in the Elementary School  
 EDU 554 Social Studies in the Elementary School  
 EDU 574 Elementary School Curriculum  
 EDU 640 Conflict Resolution and Peaceable Schools  
 EDU 671 Constructing Science Understanding in an Elementary Classroom  
 EDU 672 Microcomputer in the Instructional Program

**Literacy Course** ..... 3 cr  
*Select one course from the following:*

EDU 513 Survey of Basic Concepts of Elementary Reading Instruction  
 EDU 535 Teaching Writing in the Elementary School  
 EDU 546 Improvement of Instruction in Language Arts  
 EDU 609 Improving Reading in the Content Areas  
 EDU 612 Developing Literacy through Literature

**Methods and Practicum Course** ..... 6 cr  
 EDU 682 Enhancing and Integrating Elementary Math, Science, and Social Studies (6)

**Elective Course** ..... 3 cr

**Research and Master's Project** ..... 6 cr  
 EDF 689 Methods and Techniques of Educational Research  
 EDU 690 Master's Project

**Total Required Credit Hours** ..... 36 cr  
 All courses are 3 credit hours unless otherwise indicated.

# CHILDHOOD EDUCATION (GRADES 1–6)

## Master of Science in Education Program, Including Initial Teacher Certification (MIITC)\*

Program Code: MSED-ED

Major Code: CET

HEGIS 0802

Note: This program is subject to change pending revisions.

### Elementary Education and Reading Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Accredited by Association of Childhood Education International

Wendy A. Paterson, *Chair*

Ellen S. Friedland, *Assistant Chair for Graduate Programs*

Bacon Hall 302, (716) 878-5916

[www.buffalostate.edu/elementaryeducation](http://www.buffalostate.edu/elementaryeducation)

### \*Master Including Initial Teacher Certification

This program is designed for students who have an undergraduate degree in one of the liberal arts and sciences. It leads to an M.S. in education and eligibility to apply for initial certification in childhood education from the New York State Department of Education.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale), or a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE).

2. An academic major or concentration in one of the liberal arts and sciences, such as American studies, English, mathematics, science, history, geography, environmental studies, or a language other than English. Certain majors are not acceptable; for example, political science, computer science, criminal justice, business.

3. A passing score on the New York State Liberal Arts and Sciences Test (LAST). Contact the Teacher Certification Office, (716) 878-6121, for details.

4. A completed Application Requirement Worksheet detailing:  
 a) College-level work in each of the following: English, mathematics, science, and social studies. Each applicant will have completed this requirement as an undergraduate or will be required to complete 6 credit hours of study in each of these four disciplines. Basic college writing courses (ENG 101 or ENG 102) do not count toward the English requirement.

b) Two years of high school or two semesters of college study in one foreign language (high school transcript should be submitted with application).

5. A word-processed statement addressing the following:

a) Professional goals for the specific program to which the applicant is applying.

b) Related professional experiences.

Statements will be evaluated according to the following criteria: organization, conventions of language, content.

Note: Please sign and date the statement.

6. Three letters of reference on special department forms that attest to the applicant's potential as a graduate student and as a teacher. Please note that two references must be from college professors/instructors. Department forms may be downloaded at [www.buffalostate.edu/graduateschool/admissions](http://www.buffalostate.edu/graduateschool/admissions).

These are the minimum criteria for admission; satisfaction of these criteria does not guarantee admission to the program. In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

## CHILDHOOD EDUCATION (GRADES 1–6)

*continued*

### *Additional Admission Information:*

- Each applicant will be evaluated in terms of his or her baccalaureate degree, academic performance, and experiential background, as well as the substance and quality of the personal statement.
- To receive initial certification, students must pass the applicable New York State certification exams.

### Program Requirements

<b>Seminar</b> .....		<b>3 cr</b>
EDU 501	Seminar for the Reflective Teacher (to be taken early in the program)	
<b>Multicultural Perspectives and Diversity Course</b> .....		<b>3 cr</b>
EDU 620	Teaching and Learning in Diverse Elementary School Classrooms	
<b>Foundation Courses</b> .....		<b>6 cr</b>
EDF 503	Educational Psychology	
and		
<i>Select one course from the following:</i>		
EDF 528	Human Relations	
EDF 540	Human Development	
<b>Literacy Course</b> .....		<b>3 cr</b>
<i>Select one course from the following:</i>		
EDU 609	Improving Reading in the Content Areas	
EDU 611	Literacy in the Primary Grades	
EDU 612	Developing Literacy through Literature	
<b>Exceptional Education Course</b> .....		<b>3 cr</b>
EDU/EXE 577	Teaching Individuals with Exceptionalities in Regular Classroom	
<b>Methods and Practicum Courses</b> .....		<b>30 cr</b>
EDU 310	Teaching Social Studies in the Elementary School	
EDU 312	Teaching Math/Science in the Elementary School (6)	
EDU 400/EDU 401	Student Teaching (12)	
EDU 511	Methods of Teaching English/Language Arts (6)	
EDU 672	Microcomputer in the Instructional Program	
<b>Mathematics Course</b> .....		<b>3 cr</b>
One graduate course with adviser approval		
<b>Research and Master's Project</b> .....		<b>6 cr</b>
EDF 689	Methods and Techniques of Educational Research	
EDU 690	Master's Project	
<b>Total Required Credit Hours</b> .....		<b>57 cr</b>
All courses are 3 credit hours unless otherwise indicated.		

## CREATIVE STUDIES

### Master of Science Program

Program Code: MS-SP

Major Code: CRS

HEGIS 4903

### Creative Studies Department

Gerard J. Puccio, *Chair*

Chase Hall 244, (716) 878-6223

[www.buffalostate.edu/creativity](http://www.buffalostate.edu/creativity)

The Creative Studies Department and its International Center for Studies in Creativity credential creativity through a diverse menu of programs that cultivate skills in creative thinking, innovative leadership practices, and problem-solving techniques. The department, through the process of creative thought, enhances an individual's ability to imagine new ideas by learning how to envision that which cannot be immediately seen. This internationally recognized academic department offers a series of courses that lead to a master of science degree in creative studies or a graduate certificate in creativity and change leadership (see next program). These unique graduate programs attract students from business, education, and many diverse fields. Short summer institutes in combination with distance courses now make the graduate certificate and full master's degree available to busy professionals both within and outside Western New York. Students from across the U.S. and international students from such countries as South Africa, Brazil, Canada, Italy, England, and Singapore have participated in these programs.

The combination of required and elective courses make this graduate program ideal for educators who seek permanent and professional licensure through a degree that offers a unique and valuable set of knowledge and skills (consult with Buffalo State's Teacher Certification Office for specific issues regarding licensure in New York State). The required courses give all students an opportunity to develop practical leadership, facilitation, training/teaching, and problem-solving skills, while the selection of electives allows students to concentrate on acquiring knowledge and skills in another area of specialization (e.g., education, business, organizations, communications). The creative studies program challenges students to develop their creative talents and to become leaders of change in their professional lives.

Introductory-level graduate courses may be taken by students from other departments at Buffalo State to enrich their majors. Students from business, education, and a variety of other disciplines find this coursework useful. Multidisciplinary degree students integrate creativity courses to fulfill part of their requirements for a master's degree.

The master's degree program consists of three major strands of coursework. The Foundations of Creativity strand surveys various approaches to assessing and defining creativity, as well as a variety of models and theories associated with understanding the nature of creative behavior. The introductory course to this strand is CRS 560. The Creative Problem Solving and Facilitation strand emphasizes ways to deliberately foster creative potential by helping the student to learn, apply, and teach specific creative problem-solving tools. The introductory course to this strand is CRS 559. The third strand, Research, Development and Dissemination, includes involvement with the department's program of research, development, and dissemination. Students pursue a master's project or thesis that makes a contribution to the emerging discipline of creativity studies. The introductory course to this strand is CRS 580. Students may opt to complete a comprehensive examination and portfolio review in place of the project or thesis.

### *Admission Requirements:*

- A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale). Preference is shown to those with GPAs of 3.0 or higher.
- A written statement of the applicant's professional or educational goals and how a degree in creativity studies supports these goals.

3. Two letters of reference (forms provided by department or download from [www.buffalostate.edu/creativity](http://www.buffalostate.edu/creativity)).

4. Five years of professional experience (distance program applicants only; distance students must begin with the certificate program).

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

### Graduate Certificate Program and Distance Graduate Program for Professionals

Those interested in pursuing any one of the program strands but not the full master's degree may complete the graduate certificate program in creativity and change leadership; see next program. Certificates are issued upon completion of at least 18 credit hours (six courses).

#### Program Requirements

##### Required Courses.....21 cr

CRS 559	Principles in Creative Problem Solving
CRS 560	Foundations of Creative Learning
CRS 580	Creativity Assessment: Methods and Resources
CRS 610	Facilitation of Group Problem Solving
CRS 625	Current Issues in Creative Studies
CRS 635	Creativity and Change Leadership
CRS 670	Foundations in Teaching and Training Creativity

##### Elective Courses .....6-12 cr

##### Master's Project, Master's Thesis, or Comprehensive Exam.....0-6 cr

Select one option:

Comprehensive Exam (0)	
CRS 690	Master's Project
CRS 795	Master's Thesis (6)

##### Total Required Credit Hours.....33 cr

All courses are 3 credit hours unless otherwise indicated.

## CREATIVITY AND CHANGE LEADERSHIP

### Graduate Certificate Program

Program Code: GRCT-SP

Major Code: CRT

HEGIS 4903

#### Creative Studies Department

Gerard J. Puccio, *Chair*  
Chase Hall 244, (716) 878-6223  
[www.buffalostate.edu/creativity](http://www.buffalostate.edu/creativity)

Ongoing development of leadership models during the last century has drawn a close connection between creativity and leadership. At the core of many current leadership models is the concept of change—how to foster and manage it. This concept is clearly reflected in the language used to describe the essence of leadership today. For instance, many leadership theories focus on visionary, transformational, and change leadership. In addition, the view that leadership consists of a set of specific attributes that one has or does not have has shifted to a view that leadership skills can be learned.

The ability to think creatively is an essential leadership skill: the creative process brings about change. Often, a leader must act as a catalyst for change. Thus, it is imperative for leaders to learn how to facilitate their own creative thinking, as well as those they work with to bring about productive change (i.e., new products, services, resolution to problems, opportunities, etc.).

The purpose of the State University of New York graduate certificate program in creativity and change leadership is to provide students with the knowledge and skills that can put them in a better position to operate as change leaders. Leadership is a process. This certificate program teaches students how to better manage this process.

The program applies more than 50 years of research, development, and practice in the field of creativity toward leadership development. The program is not designed strictly for those in formal leadership roles; anyone can learn how to positively influence others as a leader. Leadership is about action, not position.

After completing this graduate certificate program, students can choose to continue with the master's degree in creativity.

The master's program and certificate program are offered on the Buffalo State campus and to distance students. Students who wish to earn a master's degree in creativity via distance must begin in the certificate program. Distance students are required to have five years of professional experience. For a description of the distance program (i.e., graduate certificate in creativity and change leadership for professionals), go to [www.buffalostate.edu/centers/creativity/Education/Distance.html](http://www.buffalostate.edu/centers/creativity/Education/Distance.html).

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale). Preference is given to those with GPAs of 3.0 or higher.
2. A written statement of the applicant's professional or educational goals and how a graduate certificate in creativity supports these goals.
3. Two letters of reference (forms provided by department, or download from [www.buffalostate.edu/centers/creativity](http://www.buffalostate.edu/centers/creativity)).
4. Five years of professional experience (distance learning program applicants only).
5. Successful review by the Graduate Admissions Committee.

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

#### Program Requirements

##### Required Courses.....15 cr

CRS 559	Principles in Creative Problem Solving
CRS 560	Foundations of Creative Learning
CRS 580	Creativity Assessment: Methods and Resources
CRS 610	Facilitation of Group Problem Solving
CRS 635	Creativity and Change Leadership

##### Elective Course.....3 cr

Select one course from the following:

CRS 625	Current Issues in Creative Studies
CRS 670	Foundations in Teaching and Training Creativity

##### Total Required Credit Hours .....18 cr

All courses are 3 credit hours unless otherwise indicated.

## CRIMINAL JUSTICE

### Master of Science Program

Program Code: MS-SP

Major Code: CRJ

HEGIS 2105

#### Criminal Justice Department

Elizabeth Szockyj, *Chair*  
Classroom Building C114, (716) 878-4517  
[www.buffalostate.edu/criminaljustice](http://www.buffalostate.edu/criminaljustice)

This program integrates theory, research, and practice that are grounded in the social sciences. The academically rigorous curriculum prepares students for leadership positions in professional criminal justice fields or for advanced graduate study.

Program graduates have a broad base of knowledge in criminal justice and related disciplines; academic skills in critical thinking, conceptualization and analysis; and an

## CRIMINAL JUSTICE *continued*

in-depth understanding of the complexities of decision making, policy implementation, and planned organizational change in criminal justice.

### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale) in the last 60 credit hours.
2. A written statement of intent that includes the applicant's preparation for graduate study (guidelines available from the department).
3. If minimum requirements are not met, the graduate faculty may grant an applicant conditional admission to the program as a premajor if the applicant has a minimum cumulative GPA of 2.75 (4.0 scale)

AND

- a. A minimum of five years of full-time work experience in the criminal justice field. OR
  - b. A minimum combined score of 900 on the Verbal and Quantitative sections of the Graduate Record Examination (GRE).
4. Applications are reviewed on a continual basis for the fall and spring semesters.

### Program Prerequisites:

1. An undergraduate descriptive and inferential statistics course from a four-year institution.
2. An undergraduate research methods course from a four-year institution.

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

### Program Requirements

#### Required Core Courses .....9 cr

CRJ 501	Theoretical Perspectives on Crime/Criminal Justice
CRJ 504	Research Methods in Criminal Justice
CRJ 603	Administration of Criminal Justice

#### Elective Courses .....24–27 cr

##### Select from the following:

CRJ 508	History of Criminal Justice
CRJ 590	Independent Study
CRJ 601	Correctional Strategies
CRJ 602	Organizational Behavior and Management Process in Criminal Justice
CRJ 604	Criminal Courts
CRJ 605	Law and Social Control
CRJ 606	Law Enforcement Issues
CRJ 608	Special Topics in Criminal Justice
CRJ 620	White Collar Crime
CRJ 622	Juvenile Justice
CRJ 624	Computer Application
CRJ 625	Race and Ethnicity in Criminal Justice
CRJ 626	Gender Issues in Criminal Justice
CRJ 628	Organized Crime
CRJ 630	Constitutional Issues in Criminal Justice
CRJ 635	Criminal Justice Ethics
CRJ 710	Research Project

Up to 9 credit hours of electives may be taken outside the department with prior written approval of the student's academic adviser.

#### Comprehensive Examination or Master's Project .....0–3 cr

##### Select one option:

CRJ 690	Master's Project (3)
	Comprehensive Examination

#### Total Required Credit Hours .....36 cr

All courses are 3 credit hours unless otherwise indicated.

## EARLY CHILDHOOD EDUCATION (BIRTH-GRADE 2)

### Master of Science in Education Program\*

Program Code: MSED-ED

Major Code: ECE

HEGIS 0823

\*Note: This program is subject to change pending revisions.

### Elementary Education and Reading Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Wendy A. Paterson, *Chair*

Ellen S. Friedland, *Assistant Chair for Graduate Programs*

Marion F. Barnett, *Program Coordinator*

Bacon Hall 302, (716) 878-5916

[www.buffalostate.edu/elementaryeducation](http://www.buffalostate.edu/elementaryeducation)

Teachers with New York State initial teaching certification in childhood education or provisional teacher certification in elementary education may apply for admission to the master's program in early childhood education. Students who successfully complete this master of science in education program may apply for professional teaching certification (for those with initial certification) or permanent teaching certification (for those with provisional certification) from the New York State Department of Education.

### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale), or a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE).
2. A New York State Certificate of Qualification (CQ) or provisional certification in elementary education, or initial certification in childhood education. Recent graduates or those who are just completing their undergraduate programs at the time of application should write in the anticipated date of certification on the admission application. Submit a copy of certification to the Elementary Education and Reading Department by the time of application for degree candidacy (after completing 6 credits and before completing 12 credits).
3. A word-processed statement addressing the following:
  - a) Professional goals for the specific program of application.
  - b) Related professional experiences.

Statements will be evaluated according to the following criteria: organization, conventions of language, content.

Note: Please sign and date the statement.

4. Three letters of reference on special department forms that attest to the applicant's potential as a graduate student. Please note that two references must be from college professors/instructors. Department forms may be downloaded at [www.buffalostate.edu/graduateschool/admissions](http://www.buffalostate.edu/graduateschool/admissions).

These are the minimum criteria for admission; satisfaction of these criteria does not guarantee admission to the program. In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

### Program Requirements

#### Seminar .....3 cr

EDU 501	Seminar for the Reflective Teacher (to be taken early in the program)
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#### Multicultural Perspectives and Diversity Courses .....6 cr

##### Required:

EDU 528	Families and Early Childhood Programs
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##### Select one course from the following:

EDF 641	Social Foundations of Education
EDF 645	Social Influences on Teaching and Learning
EDU/EXE 577	Teaching Individuals with Exceptionalities in Regular Classroom
EDU 620	Teaching and Learning in Diverse Elementary School Classrooms
EXE 500	Individuals with Special Needs (cannot be taken by Buffalo State graduates)
SOC 506	Minority Groups in American Culture

<b>Foundation Courses</b> .....	<b>3 cr</b>
<i>Select one course from the following:</i>	
EDF 503	Educational Psychology
EDF 528	Human Relations
EDF 611	Evaluation in Education
<b>Curriculum Courses</b> .....	<b>6 cr</b>
EDU 543	Curriculum for the Young Child (taken before methods and practicum courses)
EXE 650	Assessment of Infants and Preschoolers with Disabilities
<b>Literacy Courses</b> .....	<b>6 cr</b>
<i>Select two courses from the following:</i>	
EDU 513	Survey of Basic Concepts of Elementary Reading Instruction
EDU 611	Literacy in the Primary Grades
EDU 612	Developing Literacy through Literature
<b>Methods and Practicum Courses</b> .....	<b>6 cr</b>
EDU 616	Integrating Theory and Practice in Programs for Infants and Toddlers
EDU 626	Integrating the Content Areas in the Teaching of Young Children (taken in the semester before or concurrent with EDF 689 and EDU 690)
<b>Research and Master's Project</b> .....	<b>6 cr</b>
EDF 689	Methods and Techniques of Educational Research
EDU 690	Master's Project
<b>Total Required Credit Hours</b> .....	<b>36 cr</b>
All courses are 3 credit hours unless otherwise indicated.	

## EARLY CHILDHOOD EDUCATION (BIRTH–GRADE 2)

**Master of Science in Education Program,  
Including Initial Teacher Certification (MIITC)\***  
Project Code: MSED-ED  
Major Code: ECT  
HEGIS 0823

### Elementary Education and Reading Department

National Council for Accreditation of Teacher Education (NCATE) Accredited  
Wendy A. Paterson, *Chair*  
Ellen S. Friedland, *Assistant Chair for Graduate Programs*  
Marion F. Barnett, *Program Coordinator*  
Bacon Hall 302, (716) 878-5916  
[www.buffalostate.edu/elementaryeducation](http://www.buffalostate.edu/elementaryeducation)

### \*Master Including Initial Teacher Certification

This program is designed for students with an undergraduate degree in one of the liberal arts and sciences. It leads to an M.S. in education and eligibility to apply for initial certification in early childhood education from the New York State Department of Education.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale), or a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE).
2. An academic major or concentration in one of the liberal arts and sciences, such as American studies, English, mathematics, science, history, geography, environmental studies, or a language other than English. Certain majors are not acceptable; for example, political science, computer science, criminal justice, business.
3. A passing score on the New York State Liberal Arts and Sciences Test (LAST). Contact the Teacher Certification Office, (716) 878-6121, for details.
4. A completed Application Requirement Worksheet detailing:
  - a) College-level work in each of the following: English, mathematics, science, and social studies. Each applicant will have completed this requirement as an undergraduate or will be required to complete 6 credit hours of study in each of these four disciplines. Basic college writing courses (ENG 101 or ENG 102) do not count toward the English requirement.

- b) Two years of high school or two semesters of college study in one foreign language (high school transcript should be submitted with application).
5. A word-processed statement addressing the following:
    - a) Professional goals for the specific program of application.
    - b) Related professional experiences.

Statements will be evaluated according to the following criteria: organization, conventions of language, content.

Note: Please sign and date the statement.

6. Three letters of reference on special department forms that attest to the applicant's potential as a graduate student and as a teacher. Please note that two references must be from college professors/instructors. Department forms may be downloaded at [www.buffalostate.edu/graduateschool/admissions](http://www.buffalostate.edu/graduateschool/admissions).

These are the minimum criteria for admission; satisfaction of these criteria does not guarantee admission to the program. In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

#### Additional Admission Information:

1. Each applicant will be evaluated in terms of his or her baccalaureate degree, academic performance, and experiential background, as well as the substance and quality of the personal statement.
2. To receive initial certification, students must pass the applicable New York State certification exams.

### Program Requirements

<b>Seminar</b> .....	<b>3 cr</b>
EDU 501	Seminar for the Reflective Teacher (to be taken early in the program)
<b>Exceptional Education</b> .....	<b>3 cr</b>
EDU/EXE 577	Teaching Individuals with Exceptionalities in the Regular Classroom
<b>Multicultural Perspectives and Diversity Courses</b> .....	<b>6 cr</b>
<i>Required</i>	
EDU 620	Teaching and Learning in Diverse Elementary School Classrooms
<i>Select one course from the following (may be taken during student teaching):</i>	
EDU 411	Parents, School, and Community
EDU 528	Families and Early Childhood Programs (taken during student teaching)
<b>Required Foundation Course</b> .....	<b>3 cr</b>
<i>Select one course from the following:</i>	
EDF 503	Educational Psychology
EDF 540	Human Development
<b>Curriculum Course</b> .....	<b>3 cr</b>
EDU 543	Curriculum for the Young Child
<b>Literacy Course</b> .....	<b>3 cr</b>
<i>Select one course from the following:</i>	
EDU 611	Literacy in the Primary Grades
EDU 612	Developing Literacy through Literature
<b>Methods and Practicum Courses</b> .....	<b>27 cr</b>
EDU 329	Integrating Thematic Instruction Young Children (6)
EDU 400/EDU 410	Student Teaching (12)
EDU 511	Methods of Teaching English Language Arts (6)
EDU 616	Integrating Theory and Practice in Programs for Infants and Toddlers
<b>Research and Master's Project</b> .....	<b>6 cr</b>
EDF 689	Methods and Techniques of Educational Research
EDU 690	Master's Project
<b>Total Required Credit Hours</b> .....	<b>54 cr</b>
All courses are 3 credit hours unless otherwise indicated.	

# EARTH SCIENCE EDUCATION (7–12)

## Master of Science in Education Program

Program Code: MSED-NS

Major Code: EAS

HEGIS 1917.01

### Earth Sciences and Science Education Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Gary S. Solar, *Chair*

Science Building 271, (716) 878-6731

www.buffalostate.edu/earthsciences

This program is designed for in-service teachers or those seeking science teaching certification. The earth science education program permits graduate work in any of the sciences or mathematics, in addition to required science education coursework. The program presumes an undergraduate background in geology/earth sciences; however, individuals with deficiencies may be granted conditional admittance. See the Earth Sciences and Science Education Department chair and the department Web site for details.

Students must demonstrate competencies in the following areas:

Earth sciences—historical geology, paleontology, geomorphology, astronomy, oceanography, mineralogy and petrology, meteorology

Other sciences—completion of no less than two semesters of lab-based coursework in each of the following: biology, chemistry, and physics

Science education—evaluation, secondary curricula, current issues

The usual method of demonstrating competencies in the sciences is through successful completion of graduate or undergraduate courses in the areas listed. Graduate credit is available only for courses listed as graduate. No competency may be fulfilled by examination after admission to the major.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.65 (4.0 scale).
2. A New York State Certificate of Qualification (CQ), provisional certificate, or initial certificate.
3. Three letters of recommendation that address teaching ability and academic standing.
4. Completion of two courses in earth sciences, including an introductory lab-based physical geology course, with a minimum grade of C.
5. An admission interview (at the discretion of the Admissions Committee).

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

### Program Requirements

Science and Mathematics Courses .....15–18 cr

Science Education Courses .....9 cr

SCI 628	Seminar in Secondary Science Education
SCI 632	Curricular Trends in Science Teaching in the Secondary School
SCI 685	Evaluation in Science Education

Master's Project or Master's Thesis .....3–6 cr

Select one option:

SCI/GES 690	Master's Project
SCI/GES 795	Master's Thesis (6)

Total Required Credit Hours .....30 cr

All courses are 3 credit hours unless otherwise indicated.

# EARTH SCIENCE EDUCATION (7–12)

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: EGS

HEGIS 1917.01

### Earth Sciences and Science Education Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Gary S. Solar, *Chair*

Science Building 271, (716) 878-6731

www.buffalostate.edu/earthsciences

The earth science education (7–12) postbaccalaureate teacher certification program leads to eligibility for New York State initial certification to teach both earth science and general science in grades 7–12. This program is designed for students who have earned a baccalaureate degree in earth science or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach earth science in secondary schools or general science in middle schools.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

A minimum GPA of 3.0 (4.0 scale) in required earth science courses is needed for admission to SED 405, SED 407, and SED 408.

*Financial Assistance:* For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

*Admission Requirements:* A bachelor's degree in earth science or a related area from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale) in required earth science courses.

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

### Program Requirements

Required Earth Science Courses .....40 cr

GES 101	Introductory Geology
GES 102	Historical Geology
GES 103	Introductory Geology Laboratory (1)
GES 111	General Oceanography
GES 131	Introductory Astronomy
GES 241	Meteorology
GES 302	Invertebrate Paleontology (4)
GES 303	Mineralogy and Petrology (4)
GES 307	Geomorphology
GES 308	Structural Geology (4)
GES 405	Geology of North America
	One astronomy elective
	One upper-level earth science elective

Professional Education Courses .....24 cr

EDF 303	Educational Psychology
EDU 416	Teaching Literacy in Middle and Secondary Schools
EXE 372	Foundations of Teaching Adolescents with Disabilities
SCI 445	Literacy for Teaching Science (or equivalent)
SED 200	Field Experience in Secondary Science Education
SED 401	Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
SED 405	Methods and Materials for Teaching Secondary School Science
SED 409	Seminar in Secondary Science Education

**Student Teaching Courses .....12 cr**

- SED 407 Practice Teaching Science in the Middle School (6)
- SED 408 Practice Teaching Science in the High School (6)

**Courses in Other Fields for Certification .....28-30 cr**

- A. Foreign Language Courses (6 cr)  
One year or equivalent
- B. Cognate Science Courses (22-24 cr)  
*Select two biology courses from the following:*  
BIO 211 Introduction to Cell Biology and Genetics (4)  
BIO 212 Introduction to Organismal Biology and Diversity (4)  
BIO 213 Introduction to Ecology, Evolution, and Behavior (4)  
CHE 111/CHE 112 Fundamentals of Chemistry I and II (8)  
PHY 111/PHY 112 University Physics I and II (8)  
or  
PHY 107/PHY 108 General Physics I and II (6)

**Total Required Credit Hours .....104-106 cr**

All courses are 3 credit hours unless otherwise indicated.

# EARTH SCIENCE EDUCATION (7-12; 5-6 EXTENSION)

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: EGX

HEGIS 1917.01

### Earth Sciences and Science Education Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Gary S. Solar, *Chair*

Science Building 271, (716) 878-6731

[www.buffalostate.edu/earthsciences](http://www.buffalostate.edu/earthsciences)

The earth science education (7-12 with 5-6 extension) postbaccalaureate teacher certification program leads to eligibility for New York State initial certification to teach both earth science and general science in grades 5-12. The program is designed for students who have earned a baccalaureate degree in earth science or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach earth science in secondary schools or general science in middle schools.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

A minimum GPA of 3.0 in required earth science courses is needed for admission to SED 405, SED 407, and SED 408.

*Financial Assistance:* For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

*Admission Requirements:* A bachelor's degree in earth science or a related area from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale) in required earth science courses.

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

## Program Requirements

**Required Earth Science Courses .....40 cr**

- GES 101 Introductory Geology
- GES 102 Historical Geology
- GES 103 Introductory Geology Laboratory (1)
- GES 111 General Oceanography
- GES 131 Introductory Astronomy
- GES 241 Meteorology
- GES 302 Invertebrate Paleontology (4)
- GES 303 Mineralogy and Petrology (4)
- GES 307 Geomorphology
- GES 308 Structural Geology (4)
- GES 405 Geology of North America
- One astronomy elective
- One upper-level earth science elective

**Professional Education Courses .....30 cr**

- EDF 303 Educational Psychology
- EDU 416 Teaching Literacy in Middle and Secondary Schools
- EXE 372 Foundations of Teaching Adolescents with Disabilities
- SCI 323 Science as Inquiry
- SCI 445 Literacy for Teaching Science (or equivalent)
- SED 200 Field Experience in Secondary Science Education
- SED 310 Teaching Science in the Middle School
- SED 401 Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
- SED 405 Methods and Materials for Teaching Secondary School Science
- SED 409 Seminar in Secondary Science Education

**Student Teaching Courses .....12 cr**

- SED 407 Practice Teaching Science in the Middle School (6)
- SED 408 Practice Teaching Science in the High School (6)

**Courses in Other Fields for Certification .....28-30 cr**

- A. Foreign Language Courses (6 cr)  
One year or equivalent
- B. Cognate Science Courses (22-24 cr)  
*Select two biology courses from the following:*  
BIO 211 Introduction to Cell Biology and Genetics (4)  
BIO 212 Introduction to Organismal Biology and Diversity (4)  
BIO 213 Introduction to Ecology, Evolution, and Behavior (4)  
CHE 111/CHE 112 Fundamentals of Chemistry I and II (8)  
PHY 111/PHY 112 University Physics I and II (8)  
or  
PHY 107/PHY 108 General Physics I and II (6)

**Total Required Credit Hours .....109 cr**

All courses are 3 credit hours unless otherwise indicated.

# ECONOMICS

See Applied Economics

# EDUCATIONAL COMPUTING

**Master of Science in Education Program**  
 Program Code: MSED-SP  
 Major Code: EDC  
 HEGIS 0899

## Computer Information Systems Department

Lawrence W. Scott, *Chair*

John T. Thompson, *Program Coordinator and Associate Professor*  
 Chase Hall 208, (716) 878-3531  
 E-mail: thompsjt@buffalostate.edu  
 www.buffalostate.edu/cis

This program is designed primarily for P–12 educators who wish to develop and expand their skills in the educational application of computers in the classroom. Emphasis is on the use of computers in the instructional process. The program is significantly different from a graduate degree program in computer science or computer information systems.

Graduates of the educational computing program learn to:

- Use computers in the instructional process
- Develop evaluation criteria and evaluate educational software
- Prepare software using a variety of techniques
- Design a microcomputer system for an educational site
- Use computers in noninstructional and/or administrative settings
- Assess current and future technological trends in education
- Explore social, legal, and ethical issues involved in educational computing

### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale). Students with less than a 3.0 GPA may be admitted as premajors.
2. Elementary/Secondary teaching certification is recommended.
3. Three letters of recommendation.
4. A written statement that details the applicant's previous computer experience and sets forth the applicant's career goals.
5. Previous experience with the Internet and common software tools (e.g., word processing, spreadsheet, and presentation software) is a prerequisite for full admission to the program. Students deficient in this prerequisite may be admitted as premajors.

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

### Program Requirements

#### Professional Core Courses .....9 cr

EDF 503	Educational Psychology
EDF 689	Methods and Techniques of Educational Research
EDU 670	Principles of Curriculum Design

#### Educational Computing Courses .....12 cr

EDC 601	Instructional Technologies
EDC 604	Authoring for Educators
EDC 672	The Microcomputer in the Instructional Program
EDC 707	Computer Applications in Education Administration

#### Content Core .....12 cr

Four courses in content in the area in which the student is seeking professional certification (for students seeking professional teaching certification)  
 or  
 Four electives chosen by advisement (for students not seeking professional certification)

#### Master's Project .....3 cr

EDC 690	Master's Project in Computer Applications in Instruction
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#### Total Required Credit Hours .....36 cr

All courses are 3 credit hours unless otherwise indicated.

# EDUCATIONAL LEADERSHIP

**Certificate of Advanced Study Program**  
 Program Code: CAS-ED  
 Major Code: EDL  
 HEGIS 0828

## Elementary Education and Reading Department

Wendy A. Paterson, *Chair*

Nancy A. Chicola, *Program Coordinator and Associate Professor*  
 Bacon 302, (716) 878-5916  
 www.buffalostate.edu/elementaryeducation

This post-master's degree program leads to a certificate of advanced study (CAS) in educational leadership and to New York State certification of School Building Leader.

### Admission Requirements:

1. Evidence of a valid permanent or professional certificate in classroom teaching, pupil personnel service, or administration that was issued by any state or national government (submit copy).
2. A master's degree from an accredited college or university.
3. Three recommendation forms that attest to applicant's potential as an educational leader. Department forms may be downloaded at [www.buffalostate.edu/graduateschool/admissions](http://www.buffalostate.edu/graduateschool/admissions).
4. Three years of successful teaching and/or supervisory and/or pupil personnel service experience in schools or agencies (pre-K–12).
5. Statement of leadership interests, goals, and relevant professional service. See department forms for direction on writing the statement.
6. An interview providing evidence of successful leadership potential.
7. Evidence of satisfactory verbal and written English language skills.
8. Acceptable score on the Miller Analogies Test (MAT).

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

### Program Requirements:

1. A minimum GPA of 3.0 (4.0 scale) is required to remain in the program.
2. Coursework (including transfer credit) and field and internship experiences must be completed within six years of the date of enrollment in the program.
3. An application for admission to candidacy, signed by the student, the student's academic adviser, the department chair, and the School of Education dean, must be submitted to the Graduate School after the completion of 6 credit hours and before the completion of 12 credit hours.
4. A maximum of 6 credit hours of independent study may be included in the program.
5. At the completion of 24 credit hours of coursework in EDL, students may enroll in EDL 703 (Educational Leadership Internship, a 3-credit-hour course). At the completion of the EDL 703 internship and at the completion of each field experience, a letter grade of S (Satisfactory) or U (Unsatisfactory) is awarded.
6. All coursework must receive a minimum grade of C to meet program requirements.
7. A maximum of 12 graduate-level credit hours may be transferred upon approval. Only grades of B or better will be accepted as transfer credit.

### Program Requirements

#### Required Courses .....27 cr

EDL 552	Public School Law
EDL 606	School-Community Relations
EDL 607	Site-Based Leadership
EDL 612	School Business Management and Finance
EDL 630	Curriculum Leadership
EDL 631	Supervision of Teaching
EDL 702	Educational Leadership Field Experiences
EDL 703	Educational Leadership Internship
EDL 704	Seminar in Educational Change

<b>Elective Courses</b> .....	<b>6 cr</b>
<i>Select two courses from the following, or others under advisement:</i>	
EDL 500	Multicultural Education
EDL 559	Principles of Creative Problem Solving
EDL 560	Methods, Theories, and Models of Creative Learning
EDL 590	Advanced School Law (course by contract)
EDL 602	Administration of Special Education Programs
EDL 608	Administration of Programs for the Young Child
EDL 610	Methods of Adult Education
EDL 640	Conflict Resolution and Peaceable Schools
EDL 652	Special Education School Law
EDL 683	Facilitation of Group Problem Solving
EDL 686	Seminar in Inner City Education
EDL 706	Problems in Leadership
EDL 707	Computer Applications in Education Administration
EDL 714	Personnel Administration in Schools
EDL 715	School Administration and Research
EDL 735	Administrators and the Reading Program

**Total Required Credit Hours** .....**33 cr**  
 All courses are 3 credit hours unless otherwise indicated.

## ENGLISH

**Master of Arts Program**  
 Program Code: MA-AH  
 Major Code: ENG  
 HEGIS 1501

**English Department**  
 Ralph L. Wahlstrom, *Chair*  
 Ketchum Hall 326, (716) 878-5417  
[www.buffalostate.edu/english](http://www.buffalostate.edu/english)

The M.A. in English program is designed to provide flexibility in meeting individual student interests while ensuring a broad understanding of the significant areas within the professional study of English. The program offers in-depth study while significantly broadening students' knowledge. It also serves as an excellent preparatory program for doctoral-level study in English.

**Admission Requirements:**

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale) in English and 2.75 overall.
  2. 36 credit hours in English, exclusive of freshman English.
- In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

**Language Requirement:**

Prior to the completion of 18 credit hours, students must demonstrate competence in one foreign language, as well as in written and oral English.

**Advisement:** Each student is assigned an academic adviser. All students must apply for candidacy after the completion of 6 credit hours and before the completion of 12 credit hours.

**Program Requirements**

<b>Required Courses</b> <sup>1</sup> .....	<b>18–24 cr</b>
<i>Select from the following areas, so that the combined undergraduate and graduate record includes at least one course from each area:</i>	
Linguistics or history of the English language	
Chaucer or Milton	
Shakespeare or Elizabethan writers	
Seventeenth- or eighteenth-century English literature	
Nineteenth-century English literature	
American literature	
World literature	
Twentieth-century literature	
Criticism	
Research in literature and language	

<b>Elective Courses</b> <sup>1</sup> .....	<b>6 cr</b>
In English or other academic areas	
<b>Master's Thesis, Master's Project, or Comprehensive Examination</b> <sup>1</sup> .....	<b>0–6 cr</b>
<i>Select one option:</i>	
ENG 690	Master's Project
ENG 695	Master's Thesis (6)
	Comprehensive Examination (0)
<b>Total Required Credit Hours</b> .....	<b>30 cr</b>
<sup>1</sup> <i>Selected under advisement</i>	
All courses are 3 credit hours unless otherwise indicated.	

## ENGLISH EDUCATION (7–12)

**Master of Science in Education Program**  
 Program Code: MSED-AH  
 Major Code: ENS  
 HEGIS 1501.01

**English Department**  
 National Council Accreditation of Teacher Education (NCATE) Accredited  
 Ralph L. Wahlstrom, *Chair*  
 Ketchum Hall 326, (716) 878-5417  
[www.buffalostate.edu/english](http://www.buffalostate.edu/english)

This graduate program is designed to provide maximum flexibility in meeting individual interests while ensuring a broad understanding of the various aspects of the teaching of English. The program develops highly qualified teachers who are prepared to exercise leadership as accomplished professional educators.

Culminating Activity (students choose one of three options): In consultation with a full-time faculty member in the English education program, students choose to (1) complete the master's thesis, a traditional in-depth exploration, usually of a literary topic and/or theme; (2) complete a master's project consisting of applied research in English education; or (3) take an English comprehensive examination.

**Admission Requirements:**

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale).
2. A New York State Certificate of Qualification (CQ), provisional certificate, or initial certificate to teach English in grades 7–12.
3. 36 credit hours in English beyond freshman composition, including preparation in linguistics, young adult literature, American literature (including ethnic American literature), British literature (including Shakespeare), and World literature.
4. 27 credit hours in professional education, including secondary English methods and student teaching in middle or secondary schools.

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

**Advisement:** Each student is assigned an academic adviser. All students must apply for candidacy after the completion of 6 credit hours and before the completion of 12 credit hours.

**Program Requirements**

<b>English Courses</b> .....	<b>9–15 cr</b>
At least three courses must be in literature	
<b>English Education and Professional Education Courses</b> .....	<b>15–21 cr</b>
EDF 500	Multicultural Education
ENG 691	Advanced Study in the Teaching of English
or	
ENG 692	Teaching of Writing
ENG 693	Research in the Teaching of English
<i>(recommended after ENG 691 or ENG 692 when possible)</i>	
Two additional English education and/or professional education courses*	

## ENGLISH EDUCATION (7–12) *continued*

\*Possible English courses: ENG 691, ENG 692, ENG 694, or ENG 670. Students may take both ENG 691 and ENG 692. Students also may select graduate courses from other appropriate departments, such as exceptional education, educational foundations, and elementary education and reading, under advisement.

**Master's Project, Master's Thesis, or Comprehensive Examination** .....0–6 cr

*Select one option:*

ENG 690      Master's Project  
ENG 695      Master's Thesis (6)  
Comprehensive Examination (0)

**Total Required Credit Hours** .....30 cr

All courses are 3 credit hours unless otherwise indicated.

## ENGLISH EDUCATION (7–12)

### Postbaccalaureate Teacher Certification Program

Program Code: PBC-AH

Major Code: ENS

HEGIS 1501.01

#### English Department

National Council Accreditation of Teacher Education (NCATE) Accredited

Ralph L. Wahlstrom, *Chair*

Ketchum Hall 326, (716) 878-5417

[www.buffalostate.edu/english](http://www.buffalostate.edu/english)

The English education (7–12) postbaccalaureate teacher certification program leads to eligibility for New York State initial certification to teach English in grades 7–12. This program is designed for students who have earned a baccalaureate degree in English or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach English in secondary or middle schools.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

Students are responsible for any additional certification requirements, including the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills written test for provisional/initial certification, and child abuse certification.

It takes approximately three to four semesters to complete certification requirements at Buffalo State. Students in this program take both undergraduate- and graduate-level courses and are billed appropriately for each level. Graduate-level credits may be applied to a master's degree at Buffalo State.

*Advisement:* Each student is assigned an academic adviser.

*Financial Assistance:* For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

*Admission Requirements:*

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale) and a major in English (or a related discipline with a minimum of 36 credit hours in English), including courses in Shakespeare, ethnic American literature, young adult literature, and world literature.\*
2. A minimum GPA of 2.75 in English coursework.\*
3. Two years of high school or two semesters of college study in one foreign language.\* Applicants must verify foreign language study with high school or college transcripts.
4. Coursework in exceptional education and educational technology (3 credit hours each) or demonstrated expertise in these areas.\*

\*Applicants who do not meet these requirements should apply as a premajor to the postbaccalaureate certificate program.

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

#### Program Requirements

**Undergraduate-Level Education Courses** .....15 cr

EDF 403      Historical/Philosophical Forces on Secondary Education  
EDU 416      Teaching Reading  
ENG 311      Teaching Language  
ENG 463      Methods in the Teaching of Secondary English (6)

**Graduate-Level Education Courses** .....9 cr

EDF 500      Multicultural Education  
EDF 503      Educational Psychology  
or  
EDF 529      Adolescent Psychology  
ENG 692      The Teaching of Writing

**Student Teaching Courses** .....12 cr

ENG 464/ENG 465      Supervised Student Teaching

**Total Required Credit Hours** .....36 cr

All courses are 3 credit hours unless otherwise indicated.

## FRENCH EDUCATION (7–12)

### Postbaccalaureate Teacher Certification Program

Program Code: PBC-AH

Major Code: FRS

HEGIS 1102.01

#### Modern and Classical Languages Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Deborah L. Hovland, *Chair*

William L. White, *Program Coordinator and Assistant Professor*

Bishop Hall 122, (716) 878-5414

[www.buffalostate.edu/languages](http://www.buffalostate.edu/languages)

The French education (7–12) postbaccalaureate teacher certification program leads to eligibility for New York State initial certification to teach French in grades 7–12.

This program is designed for students who have earned a baccalaureate degree in French or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach French in secondary or middle schools.

The program provides the background necessary for teachers to implement the New York State learning standards for Languages Other Than English (LOTE) 7–12. It also meets the standards set by such national professional organizations as the American Council of Teachers of Foreign Languages and the National Council for Accreditation of Teacher Education.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

It takes approximately three to four semesters to complete certification requirements at Buffalo State College.

Students are responsible for any additional certification requirements, including the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills written test for provisional/initial certification, and child abuse certification.

To student teach, a student must have achieved a minimum cumulative GPA of 2.75 in French coursework and overall, and must have earned a minimum grade of C in FLE 405 and FLE 406. Also, the student must complete an ACTFL-Approved Oral

Proficiency Interview (OPI) in order to demonstrate Advanced-Low Proficiency in French. If Advanced-Low Proficiency is not achieved, an additional upper-level French course, chosen in consultation with the student's advisor, must be successfully completed.

*Financial Assistance:* For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

*Admission Requirements:*

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale) and a major in French language, literature, and culture (or a related discipline with a minimum of 36 credit hours in French).\*
2. A minimum GPA of 2.75 in French coursework and overall.
3. Successful completion of two written essays (one English, one French), administered by the department as part of the interview process.
4. A personal interview with the program coordinator, department chair, or other designated official.

\*Applicants who do not meet these admission requirements may take courses at Buffalo State to become eligible to apply to the program.

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

**Program Requirements**

**Required French Courses<sup>1</sup> .....6 cr**

*Select two courses from the following:*

FRE 305	Phonetics and Orthography
FRE 306	The Civilization of France
FRE 307	Survey of French Literature
FRE 308	Survey of French Literature
FRE 309	Survey of Nineteenth- and Twentieth-Century French Literature
FRE 410	French Poetry from Baudelaire to Present
FRE 411	Studies in French Poetry
FRE 412	Studies in the French Novel
FRE 413	Studies in French Theater
FRE 415	Advanced Grammar and Composition
FRE 416	Advanced Conversation and Composition
FRE 417	Business French
FRE 496	Seminar I
FRE 497	Seminar II

**Professional Education Courses .....24 cr**

EDF 303	Educational Psychology
EDF 403	Historical and Philosophical Foundations of Secondary Education
EDU 416	Teaching Reading in Secondary Schools
EXE 372	Foundations of Teaching Secondary Students with Disabilities
FLE 200	Field Experience in Foreign Language Education
FLE 316	Teaching Reading in a Foreign Language in Middle School
FLE 405	Methods and Materials for Teaching Foreign Languages in the Secondary Schools
FLE 406	Techniques for Teaching and Evaluating Foreign Languages in Middle and Secondary Schools

**Student Teaching Courses .....12 cr**

FLE 407	Student Teaching of Foreign Languages in the Middle/Junior High School (6)
FLE 408	Student Teaching of Foreign Languages in the High School (6)

**Total Required Credit Hours .....42 cr**

<sup>1</sup>*Selected under advisement*

All courses are 3 credit hours unless otherwise indicated.

# HISTORY

**Master of Arts Program**

Program Code: MA-NS

Major Code: HIS

HEGIS 2205

**History and Social Studies Education Department**

David A. Carson, *Chair*

Classroom Building C205, (716) 878-5412

www.buffalostate.edu/history

*Admission Requirements:*

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale) in history and 2.75 overall.
2. 30 credit hours in history.
3. Two letters of recommendation.
4. A 500-word statement describing the applicant's graduate education goals and preferred fields of history.

The department may grant conditional admission to the program if minimum requirements are not met. Additional work requirements or waivers of general prerequisites for admission shall be set forth by the Instruction Committee at the time of acceptance.

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

*Advisement:* The student, with the approval of the department chair, selects an academic adviser who specializes in the student's principal areas of interest.

*Graduation Requirements:*

1. At least 15 credit hours of coursework at the 600 or 700 level.
2. Master's thesis and defense: The student, in consultation with his or her academic adviser and second reader, prepares and submits a written thesis. Once approved, the student must successfully provide an oral defense. The approved thesis is submitted as three bound copies.
3. An oral defense of the thesis. The student will answer questions from his or her graduate committee on all aspects of the thesis, as well as questions relating to the student's coursework.
4. Demonstrated competence in a foreign language may be required. If applicable, competency examinations will be arranged by the thesis adviser and approved by the department chair.

**Program Requirements**

**Required Courses<sup>1</sup> .....18 cr**

*Select from the following areas:*

- American history
  - European history
  - Third World history
- Up to 6 credit hours may be taken in related disciplines with prior approval of the student's adviser and the department chair

**Seminars .....6 cr**

6 credits at the 700 level

**Master's Thesis .....6 cr**

HIS 795 Master's Thesis (6)

**Total Required Credit Hours .....30 cr**

<sup>1</sup>*Selected under advisement*

All courses are 3 credit hours unless otherwise indicated.

# HISTORY WITH MUSEUM STUDIES CONCENTRATION

## Master of Arts Program

Program Code: MA-NS

Major Code: HIS

HEGIS 2205

### History and Social Studies Education Department

David A. Carson, *Chair*

Classroom Building C205, (716) 878-5412

www.buffalostate.edu/history

This program leads to the master of arts degree in history with a concentration in museum studies, and prepares candidates for professional work in museums and historical agencies. The program provides training in a museum setting while refining scholarship and research skills within the discipline of history.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale) in history and 2.75 overall.
2. Two letters of recommendation.
3. A 500-word personal statement describing the applicant's graduate educational goals and interest in the museum field.
4. Demonstrated competence in a foreign language, statistics, or computer programming may be necessary. If applicable, competency examinations will be arranged by the thesis adviser and approved by the department chair.

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

#### Graduation Requirements:

Master's thesis and defense: The student, in consultation with his or her academic adviser and second reader, prepares and submits a written thesis. Once approved, the student must successfully provide an oral defense. The approved thesis is submitted as three bound copies.

### Program Requirements

#### Required Courses .....12 cr

HIS 500	American History Seminar
HIS 660	Museums and Society
HIS 665	Critical Issues in Museum Studies
HIS 704	American, European, and Third World History
or	
HIS 709	Local Regional Research Methods

#### Independent Study or Internship .....3 cr

Select one option:

HIS 590	Independent Study
HIS 688	Internship

#### Elective Courses .....9 cr

Select three courses from the following or other courses under advisement:

AED 505	Foundations in Museum Education Studies
COM 519	Communication for Managers
CRS 559	Principles of Creative Problem Solving
CRS 560	Methods, Theories, and Models of Creative Learning
DES 640	Graduate Studio in Design

#### Master's Thesis .....6 cr

HIS 795	Master's Thesis (6)
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#### Total Required Credit Hours .....30 cr

All courses are 3 credit hours unless otherwise indicated.

# HUMAN RESOURCE DEVELOPMENT

## Graduate Certificate Program

Program Code: GRCT-ED

Major Code: HRD

HEGIS 0807

### Educational Foundations Department

Warren L. Gleckel, *Interim Chair*

Susan K. Birden, *Program Coordinator and Associate Professor*

Bacon Hall 306, (716) 878-3905

www.buffalostate.edu/adulteducation

This graduate certificate program is designed to serve the advanced educational needs of professionals who educate and train workers and volunteers but do not need a master's degree. The certificate program consists of 12 graduate credit hours, and is designed to address the essential skills and competencies for professional practitioners in human resource development. Graduates will use their skills to develop and administer training programs to produce a more effective and competitive workforce.

The certificate in human resource development can be applied toward a master's degree in adult education at Buffalo State. Students wishing to complete the graduate certificate in human resource development and the master of science in adult education within 30 credit hours must complete the entire graduate certificate and then apply for admission to the master's degree in adult education. This program does not lead to teaching certification.

*Online Availability:* The graduate certificate in human resource development is offered both on the Buffalo State campus and through computer-based online learning.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale), or a master's degree from an accredited institution with a minimum GPA of 3.0 (4.0 scale).
2. Applicants who hold a bachelor's degree but do not meet either of the above criteria may be admitted if they attain a minimum combined quantitative/verbal score of 1000 on the GRE and a minimum score of 45 on the Miller Analogies Test.
3. A letter describing the applicant's interest.

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

### Program Requirements

#### Required Courses .....12 cr

ADE 610	Methods in Adult Education
ADE 625	Designing and Evaluating Programs for Adult Learners
ADE/BUS 640	Human Resource Development
BUS/EDF/SWK 603	Human Resource Management

#### Total Required Credit Hours .....12 cr

All courses are 3 credits unless otherwise indicated.

# INDUSTRIAL TECHNOLOGY

## Master of Science Program

Program Code: MS-SP

Major Code: IDT

HEGIS 0925

### Technology Department

Richard A. Butz, *Chair*

John J. Earshen, *Program Coordinator and Associate Professor*

Upton Hall 314, (716) 878-6018

[www.buffalostate.edu/technology](http://www.buffalostate.edu/technology)

This program prepares professionals for positions of leadership and responsibility in business, industry, and government. It provides direct exposure to actual business and industrial problems in an applications-oriented environment. It encourages part-time study while the participant is involved in full-time employment. Representative undergraduate degrees include industrial technology, engineering technology, computer information systems, and business. Required courses include engineering economics, operations management, integrated industrial systems and research design. These courses provide a common core of knowledge enabling the graduate to effectively function in diverse settings. Elective courses allow the student to pursue topics of interest that may be of immediate professional benefit. A research project, often based on current work experiences, completes the program.

This part-time program is designed to provide a 30-hour degree that blends the management and technology disciplines, and can be completed in three years of part-time study.

#### Admission Requirements:

1. A bachelor's degree in technology, engineering, business, or information systems from an accredited college or university. Candidates holding other baccalaureate degrees but having significant work experience in one of the previously mentioned disciplines will be considered.

2. A minimum cumulative GPA of 2.5 (4.0 scale) in the baccalaureate degree.

3. Three letters of reference, including one from the applicant's current or most recent employer.

4. Letter of intent. A brief statement describing the applicant's experience and how this degree is expected to help achieve his or her career goals.

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

#### Application Procedures:

1. Obtain application materials online at [www.buffalostate.edu/graduateschooladmissions](http://www.buffalostate.edu/graduateschooladmissions) or from the Graduate School.

2. Request sealed official transcripts from all higher education institutions attended and submit them with the complete application packet to Graduate School.

3. Obtain approval from the Graduate Studies Committee, the department chair, and the Graduate School.

Admission applications are not complete until all required forms, documents, and data are received.

### Program Requirements

**Required Courses** .....12 cr

INT/ECO 601	Engineering Economy
INT 602	Operations Management
INT 659	Integrated Industrial Systems
INT 689	Research Design and Methods

**Elective Courses**<sup>1</sup> .....12-18 cr

*Select from the following:*

BUS/HIS 536	American Enterprise System
HIS 607	The U.S. in Contemporary World Affairs
INT 610	Managerial Marketing
INT 611	Network Theory
INT 612	Quality Control Management
INT 630	Work Measurement
INT 661	Manufacturing Properties of Materials
INT 662	Manufacturing Case Studies

INT 670	Production and Inventory Management
INT 675	Just-in-Time Manufacturing
PSC 500	Public Administration and Policy

**Master's Project, Master's Thesis, or Comprehensive Examination** .....0-6 cr

*Select one option:*

INT 690	Master's Project
INT 695	Master's Thesis (6)
	Comprehensive Examination (0)

**Total Required Credit Hours** .....30 cr

<sup>1</sup>*Selected under advisement*

All courses are 3 credit hours unless otherwise indicated.

# LITERACY SPECIALIST

## Master of Professional Studies Program

Program Code: MPS-ED

Major Code: LTS

## Master of Science in Education Program

Program Code: MSED-ED

Major Code: LTB

HEGIS 0830

### Elementary Education and Reading Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Accredited by International Reading Association

Wendy A. Paterson, *Chair*

Ellen S. Friedland, *Assistant Chair for Graduate Programs and Associate Professor*

Keli A. Garas-York, *Program Coordinator and Assistant Professor*

Bacon Hall 302, (716) 878-5916

[www.buffalostate.edu/elementaryeducation](http://www.buffalostate.edu/elementaryeducation)

The Elementary Education and Reading Department offers two programs leading to New York State certification as a literacy specialist: one for the elementary grades and another for middle and secondary grades. Both programs prepare professional literacy specialists to provide instruction for students with reading or writing difficulties. Graduates of these programs also will be able to serve as effective resources and leaders for school-wide literacy curriculum and instruction.

Students should expect to complete the last four required courses (EDU 642, EDU 643 or EDU 645, EDU 647, and EDU 655) in sequence, on a part-time basis, beginning in a fall semester. EDU 647 is offered as a summer course.

#### Admission Requirements (Both Programs):

1. A bachelor's degree from an accredited college or university.

2. A minimum cumulative GPA of 3.0 (4.0 scale), or a combined quantitative/verbal minimum score of 1000 on the Graduate Record Examination (GRE), or a minimum score of 50 on the Miller Analogies Test (MAT).

3. Submit a copy of a New York State Certificate of Qualification (CQ), Provisional Certificate, or Initial Certificate along with the admission application. Recent graduates or those just completing their undergraduate programs at the time of application, write in the date of the expected certification on the admission application. Submit a copy of certification to the Elementary Education and Reading Department by the time of application for degree candidacy (after completing 6 credits and before the completion of 12 credits).

4. A written statement of professional interests, goals, and relevant professional or personal experience, including the applicant's interest in working with students who are experiencing reading and/or writing difficulties.

5. Three letters of reference that attest to the applicant's potential as a literacy specialist. Forms are available at [www.buffalostate.edu/graduateschool/admissions](http://www.buffalostate.edu/graduateschool/admissions).

6. Demonstrated command of oral and written English.

## LITERARY SPECIALIST *continued*

In addition, all applicants should review the Admission to a Graduate Program section in this catalog. Admission to both programs is limited and consequently highly competitive. Admission decisions are based on a combination of candidates' previous academic performance, letters of recommendation, experience working with children, and statement of professional interests.

*Degree Candidacy:* A student who has completed at least 6 credit hours must submit an Admission to Degree Candidacy form before completing 12 credit hours.

### Master of Professional Studies Program (6251)

Graduates of the program earn eligibility for certification as literacy specialists (grades 5–12). Applicants to the 36-credit program must be certified in a secondary subject, art, music, physical education, or other area. Graduate students with elementary, early childhood, or childhood education certification also are eligible for admission.

#### Program Requirements

##### Required Courses ..... 27 cr

EDU 513	Survey of Basic Concepts of Elementary Reading Instruction
EDU 606	Literacy Instruction for Linguistically Diverse Students
EDU 609	Improving Reading in Content Areas
EDF 689	Methods and Techniques of Educational Research
EDU 642	Reading Assessment and Evaluation
EDU 645	Teaching Students with Reading Difficulties: Adolescents
EDU 647	Clinical Practicum (6)
EDU 655	Teaching of Reading: Graduate Seminar

##### Elective Courses<sup>1</sup> ..... 9 cr

Select three courses from the following:

EDU 546	Improvement of Instruction in Language Arts
EDU 584	Literacy Skills and the Adult Learner
EDU 612	Developing Literacy through Literature
EDU 615	Applying Psychology to the Teaching of Reading
ENG 692	Teaching of Writing

Other courses in language arts, young adult literature, linguistics, or other literacy-related areas may be selected under advisement.

##### Total Required Credit Hours ..... 36 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

### Master of Science in Education Program (6261)

Graduates of the program earn eligibility for certification as literacy specialists (birth through grade 6). Applicants to the 36-credit program must be certified in elementary education, early childhood education, or childhood education.

#### Program Requirements

##### Required Courses ..... 27 cr

EDU 513	Survey of Basic Concepts of Elementary Reading Instruction
EDU 606	Literacy Instruction for Linguistically Diverse Students
EDU 611	Literacy in the Primary Grades
EDF 689	Methods and Techniques of Educational Research
EDU 642	Reading Assessment and Evaluation
EDU 643	Teaching Students with Reading Difficulties: Childhood
EDU 647	Clinical Practicum (6)
EDU 655	Teaching of Reading: Graduate Seminar

##### Elective Courses<sup>1</sup> ..... 9 cr

Select three courses from the following:

EDU 535	Teaching Writing in the Elementary School
EDU 546	Improvement of Instruction in Language Arts
EDU 609	Improving Reading in the Content Areas
EDU 612	Developing Literacy through Literature
EDU 615	Applying Psychology to the Teaching of Reading

Other courses in language arts, young adult literature, linguistics, or other literacy-related areas may be selected under advisement.

##### Total Required Credit Hours ..... 36 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

## MATHEMATICS EDUCATION (7-12)

### Master of Science in Education Program

Program Code: MSED-NS

Major Code: MTS

HEGIS 1701.01

#### Mathematics Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

David C. Wilson, *Chair*

Bishop Hall 317, (716) 878-5621

www.buffalostate.edu/mathematics

This program is designed to develop, enhance, and extend the content knowledge and professional competencies of secondary mathematics teachers. Completion of this master of science program does not lead to New York State initial teaching certification. Those interested in receiving initial certification should consider the postbaccalaureate teacher certification program in mathematics education grades 7-12 (7055).

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale) in all undergraduate mathematics courses.
2. Completion of at least 18 credit hours beyond calculus, including one semester of linear algebra or abstract algebra, one semester of geometry, and at least one semester of analysis, discrete mathematics, calculus-based probability, or calculus-based statistics. Those with minor deficiencies may enter the premajor program with written permission from the Mathematics Department chair; a copy of this statement will be filed in the Mathematics Department Office and the Graduate School.
3. Acceptance as a graduate student by the department chair and the Graduate School dean.

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

The program is under revision. Contact the Mathematics Department for current requirements.

#### Program Requirements

##### Mathematics Courses ..... 12–15 cr

Select from the following:

MAT 501	Mathematics for Teachers Algebra
MAT 521	Mathematics for Teachers Geometry
MAT 581	Mathematics for Teachers Probability and Statistics
MAT 601*	Topics in Modern Algebra
MAT 603	Theory of Matrices
MAT 611*	Topics in Real Analysis
MAT 620	Modern Geometry: Selected Topics
MAT 631	Foundations of Mathematics
MAT 651	Theory of Numbers
MAT 670	Discrete Math and Foundations of Computer Science
MAT 681	Intermediate Probability
MAT 683	Statistical Theory
MAT 696	History of Mathematics
MAT 699	Advanced Special Topics
MAT 701	Modern Algebra I
MAT 711	Analysis I

\*Required if not part of student's undergraduate program

##### Mathematics Education Courses ..... 6–9 cr

Select from the following:

MED 601	Seminar in Teaching of Mathematics
MED 602	Mathematics for the Secondary School Teacher: Special Topics (3-9)
MED 604	Teaching of Geometric Concepts
MED 605	Teaching of Algebraic Concepts
MED 606	Logo: Computer Programming II for Education
MED 607	Technology in Math Education
MED 683	Problem Solving and Problem Posing

**Curriculum and Research Courses .....6 cr**

- MED 595 Research Methods and Techniques in Mathematics Education
- MED 600 Contemporary Mathematics Curriculum Development

**Master's Project or Master's Thesis .....3-6 cr**

Select one option:

- MED 690 Master's Project
- MED 795 Thesis in Mathematics Education (3-6)

**Total Required Credit Hours .....30 cr**

All courses are 3 credit hours unless otherwise indicated.

# MATHEMATICS EDUCATION (7-12)

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: MTS

HEGIS 1701.01

### Mathematics Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

David C. Wilson, *Chair*

Bishop Hall 317, (716) 878-5621

[www.buffalostate.edu/mathematics](http://www.buffalostate.edu/mathematics)

The mathematics education (7-12) postbaccalaureate teacher certification program leads to eligibility for a New York State initial certificate to teach mathematics in grades 7-12. This program is designed for students who have earned a baccalaureate degree in mathematics from an accredited college or university and intend to complete coursework required for New York State certification to teach mathematics.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

*Financial Assistance:* For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

#### Admission Requirements:

1. A bachelor's degree in mathematics or an applied mathematics field from an accredited college or university with 36 credit hours of mathematics courses and a minimum GPA of 2.5 (4.0 scale) in mathematics courses.

2. Must have passed the New York State certification exams: the Liberal Arts and Sciences Test (LAST) and the Mathematics Content Specialty Test for provisional/initial certification. Contact the Teacher Certification Office, (716) 878-6121, for details.

3. Two years of high school or one year of college-level foreign language.

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

#### Program Requirements

Requirements may be fulfilled entirely with graduate courses, entirely with undergraduate courses, or with a combination of undergraduate and graduate courses. Graduate-level courses are numbered 500 and higher; undergraduate-level courses are numbered 100-499.

**Mathematics Education Courses .....18-25 cr**

Select one course from the following:

- MED 200 Field Experience in Secondary Education Mathematics
- MED 500 Practicum I: Graduate Field Experience in Secondary Mathematics Education

Select one course from the following:

- MED 307 Uses of Technology in the Teaching of Mathematics
- MED 607 Technology in Mathematics Education

Select one option from the following:

- MED 308W Methods in the Teaching of Secondary School Mathematics and Field Experience (1)
- or
- MED 601 Seminar in the Teaching of Mathematics

Select one course from the following:

- MED 383W Learning and Teaching Problem Solving
- MED 683 Problem Solving and Problem Posing

Select one option from the following:

- MED 407 Student Teaching of Mathematics in Junior High/Middle School (6)
- MED 408 Student Teaching of Mathematics in Senior High School (6)
- or
- MED 501 Practicum II: Practice Teaching Mathematics in the Middle School
- MED 502 Practicum III: Practice Teaching Mathematics in the High School

**Professional Education Courses .....13-15 cr**

Select one course from the following:

- EDF 303 Educational Psychology
- EDF 503 Educational Psychology

Select one course from the following:

- EDF 403 Historical and Philosophical Forces Influencing Secondary Education
- EDF 525 Philosophy of Education

Select one course from the following:

- EDU 417 Parents, Schools, and Community
- EDU 609 Improving Reading in the Content Areas

Select one course from the following:

- EDU 416 Teaching Literacy in Middle and Secondary Schools
- EDU 513 Survey of Basic Concepts of Elementary Reading Instruction

Select one course from the following:

- EXE 100 Nature and Needs of Individuals with Special Needs
- MED 524 Mathematics Instruction at the Secondary Level (1)

**Total Required Credit Hours .....31-40 cr**

All courses are 3 credit hours unless otherwise indicated.

# MATHEMATICS EDUCATION (7-12; 5-6 EXTENSION)

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: MTX

HEGIS 1701.01

### Mathematics Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

David C. Wilson, *Chair*

Bishop Hall 317, (716) 878-5621

[www.buffalostate.edu/mathematics](http://www.buffalostate.edu/mathematics)

This program is designed for students who are currently enrolled in the mathematics education 7-12 postbaccalaureate teacher certification program (7055) or who have been approved for candidacy in the mathematics education master's program (6620). It allows them to extend certification in mathematics to grades 5-12.

## MATHEMATICS EDUCATION (7-12; 5-6 EXTENSION) *continued*

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

**Financial Assistance:** For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

**Admission Requirements:** A New York State Certificate of Qualification (CQ), provisional certificate, or initial certificate to teach mathematics in grades 7–12 or candidacy in the M.S.Ed. in mathematics education program (6620).

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

### Program Requirements

This program requires 6 additional credit hours of coursework in middle school education. Courses are selected under advisement. Study includes early adolescent development and the application of diverse instructional strategies in middle childhood education, including interdisciplinary teaching and teaming of students and faculty to maximize student learning.

## MULTIDISCIPLINARY STUDIES

### Master of Arts Program

Program Code: MA-GR

Major Code: MUL

### Master of Science Program

Program Code: MS-GR

Major Code: MUL

### HEGIS 4999

Kevin Railey, *Associate Provost and Dean, The Graduate School*  
Kimberly J. Jackson, *Program Coordinator and Assistant Dean for Strategic and Enrollment Planning, The Graduate School*  
Cleveland Hall 204, (716) 878-5601  
[www.buffalostate.edu/graduateschool/multi](http://www.buffalostate.edu/graduateschool/multi)

Multidisciplinary studies programs are designed for individuals with unique professional and educational objectives not readily met by traditional master's degree programs. Through advisement and within certain guidelines, students may design their own programs.

There are five program options available: individualized, environmental research and education, human services administration, museum studies, or public relations management.

### Admission Requirements (All Options):

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale).
2. A statement of intent as detailed for each option.
3. An interview with the program coordinator. The program coordinator will contact the student for an appointment after the completed application is received.

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

Prior to admission, applicants must obtain a principal adviser from the graduate faculty, who must sign the Principal Adviser Consent Form. Assistance in selecting a principal adviser may be available during the student's interview.

Upon satisfactory completion of an approved course of study, either a master of arts or a master of science degree is awarded, depending on the scope and content of the program.

### Individualized Option

Kimberly J. Jackson, *Program Coordinator and Assistant Dean for Strategic and Enrollment Planning, The Graduate School*  
The Graduate School  
Cleveland Hall 204, (716) 878-5601

Through advisement and within certain guidelines, this option allows students to design their own programs by selecting graduate courses from any department at the college or from other accredited institutions.

**Admission Requirements:** See above. In addition, the applicant should include in his or her statement of intent: (a) the professional or educational objectives of a multidisciplinary approach to the master's degree; (b) a brief explanation of the reasons for interest in a nontraditional study format; and (c) a detailed outline of the proposed plan of study, including specific courses.

### Environmental Research and Education Option

Alexander Karatayev, *Program Coordinator, Great Lakes Center Director*  
Classroom Building C215, (716) 878-4329

This option focuses on study of the environment of the Great Lakes. The primary disciplines include anthropology, biology, chemistry, earth science and earth science education, and geography and planning. Secondary disciplines include creative thinking, economics, and history. The program imparts the broad-based understanding and technical knowledge necessary to deal with complex issues facing the lakes and their contributing watersheds.

**Admission Requirements:** See above. In addition, the applicant should include:

1. A statement of intent that includes the following: (a) the professional or educational objectives of a multidisciplinary approach to the master's degree; (b) reasons for interest in pursuing the environmental research and education option; and (c) a detailed outline of the proposed plan of study, including specific courses.
2. Three letters of recommendation.
3. Acceptable scores on the Graduate Record Exam (GRE).

### Human Services Administration Option

Angelo A. Conorozzo, *Program Coordinator*  
Educational Foundations Department  
Cleveland Hall 215, (716) 878-4698

This option provides students with the conceptual, technical, and professional tools required for leadership roles in modern human-service agencies. The program is designed for individuals employed in human-service organizations, especially as middle managers.

**Admission Requirements:** See above. In addition, the applicant should include:

1. A statement of intent that includes the following: (a) the professional or educational objectives; (b) reasons for interest in human services administration option.
2. Two letters of recommendation.

### Museum Studies Option

Cynthia Conides, *Program Coordinator and Associate Professor*  
*History Department*  
Classroom Building 205, (716) 878-5412

This option provides students with the conceptual and professional tools required for leadership roles in contemporary museums. The program is designed for individuals seeking employment in the evolving world of contemporary museums, and offers students maximum flexibility to design a museum studies program that suits their background, interests, and career plans. Primary disciplines contributing to the program typically include history and social studies education, fine art, design, anthropology, art education, and design. Secondary disciplines might include creative studies, science education, business, economics, communication, art conservation, and educational technology. Students need to meet with the program coordinator to assess their goals and plans, and to create an appropriate course of study.

*Admission Requirements:* See above. In addition, the applicant should include:

1. A statement of intent that includes educational and professional objectives and reasons for interest in museum studies.
2. Two letters of recommendation.

### Public Relations Management Option

Ronald D. Smith, *Program Coordinator and Chair*  
*Communication Department*  
Bishop Hall 207, (716) 878-6008

This option is designed for students who hold undergraduate degrees in areas other than public relations, although public relations graduates can be admitted. Those interested in the public relations programs who do not wish to pursue a master's degree in multidisciplinary studies may choose a four-course certificate option. The certificate program will assist those making the transition to public relations management by focusing on formal perspectives of the professional and managerial dimensions of the field.

*Admission Requirements:* See above. In addition, the applicant should include:

1. A statement of intent, which must include the following information: (a) work experience, if any, relevant to public relations or public communication fields; (b) career goals and how this program will help the applicant achieve them; and (c) a detailed outline of the proposed plan of study, including specific courses, if applying to the master of science degree (if applying only to the certificate program, no list of courses is required).

### Program Requirements (All Options)

1. Completion of a minimum of 30 credit hours, comprising at least 15 hours of 600- and 700-level courses, including the master's thesis or master's project.
2. A maximum of 12 credit hours may be taken in a discipline that offers a master's degree. [Exceptions: A maximum of 18 credit hours may be taken in a discipline that offers a master's degree when the student does a master's thesis (6 credits). A maximum of 15 credit hours may be taken in a discipline that offers a master's degree when the student does a master's project (3 credits).]
3. A maximum of 18 credit hours may be taken in a discipline that does not offer a master's degree.
4. A maximum of 15 credit hours may be taken at another accredited institution. This coursework must conform to the limitations stated in 2 and 3 (above) and must have the prior approval of the principal adviser and the program advisory committee.
5. Only grades of B or better will be accepted as transfer credit. An official transcript showing transfer credit must be submitted to the Graduate School.
6. Coursework (including transfer credit) must be completed within the six-year period immediately preceding the date of completion of the program.
7. A maximum of 6 credit hours of independent study may be included in the program.
8. Students must maintain a minimum cumulative GPA of 3.0 (4.0 scale).
9. Master of arts candidates must complete a thesis and must orally defend it to the satisfaction of the principal adviser and the advisory committee. Master of science candidates must complete either a thesis or a supervised project and also must successfully defend it in an oral examination by the principal adviser and the advisory committee.
10. An application for admission to candidacy, approved by the student's principal adviser and members of the advisory committee, must be submitted to the Graduate School before the completion of 12 credit hours at Buffalo State.

### Advisement (All Options)

Each student must convene an academic advisory committee for his or her program consisting of a principal adviser (PA) and two additional graduate advisers. (Human services administration and public relations management options have assigned PAs; see the option coordinator for details.) It is the student's responsibility to initiate and maintain contact with the advisory committee.

The PA works closely with the student throughout his or her course of study and usually supervises the student's thesis or project. The PA works with the student to select two graduate faculty members to serve on his or her program advisory committee.

The advisory committee approves the student's plan of study (candidacy application) and the thesis or project, and attests to the student's successful completion of the approved program. At least two of the college's four schools (arts and humanities, education, natural and social sciences, and professions) must be represented on the committee. One committee member from outside the college (a member of a graduate faculty at another institution) may be recommended but must meet the approval of the corresponding Buffalo State department and the dean of the Graduate School. A copy of the non-Buffalo State faculty member's curriculum vitae must accompany the candidacy application. All committee memberships must be approved by the dean of the Graduate School.

## MUSEUM STUDIES

### Graduate Certificate Program

Program Code: GRCT-NS

Major Code: MST

HEGIS 1099

### History and Social Studies Education Department

David A. Carson, *Chair*

Classroom Building C205, (716) 878-5412

[www.buffalostate.edu/history](http://www.buffalostate.edu/history)

The museum studies certificate is a flexible program designed to allow students to tailor a program to their background and primary work experience. Each student is assigned an academic adviser who works closely with the student to create an appropriate program. The certificate in museum studies can be applied toward a master's degree program at Buffalo State in art education (K–12), history, social studies education (7–12), creative studies, or applied economics. Students interested in combining the museum studies certificate with a degree program are advised to first discuss this option with an adviser from the corresponding degree program.

*Admission Requirements:*

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale).
2. Two letters of recommendation.
3. A 500-word personal statement describing the applicant's graduate education goals and interest in the museum field.

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

## MUSEUM STUDIES *continued*

### Program Requirements

#### Required Courses .....6 cr

HIS 660	Museums and Society
HIS 665	Critical Issues in Museum Studies

#### Elective Courses<sup>1</sup> .....12 cr

AED 505	Foundations in Museum Education Studies
COM 519	Communication for Leaders and Managers
CRS 559	Principles of Creative Problem Solving
or	
CRS 560	Methods, Theories, and Models of Creative Learning
DES 640	Graduate Studio in Design
ECO 508	Applied Macroeconomic Theory
HIS 500	Studies in American History
HIS 590	Independent Study
HIS 620	Exceptional Hispanic Individuals: Historic and Cultural Concerns
HIS 623	Problems in U.S. History Since
HIS 688	Museum Internship (with approval of adviser)
HIS 709	Local History: Research Methods and Techniques
Or other course(s) under advisement	

#### Total Required Credit Hours .....18 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

## PHYSICS EDUCATION (7-12)

### Master of Science in Education Program

Program Code: MSED-NS

Major Code: PHS

HEGIS 1902.01

#### Physics Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Michael DeMarco, *Chair*

Science Building 262, (716) 878-5004

Dan L. MacIsaac, *Director of Graduate Programs and Associate Professor*

Science Building 222, (716) 878-3802

[www.buffalostate.edu/physics](http://www.buffalostate.edu/physics)

The master of science in physics education is designed for teachers who wish to combine advanced work in physics with graduate work in education.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale).
2. A New York State Certificate of Qualification (CQ), provisional certificate, or professional or initial certificate in a secondary science or mathematics.
3. An application packet, including a personal statement and three letters of reference.
4. An interview may be required.

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

#### Program Requirements

#### Physics Teaching Methods .....6 cr

PHY 510	Process Skills in Physics Teaching (6)
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#### Physics Content with Model Pedagogy .....12 cr

PHY 620	Powerful Ideas and Quantitative Modeling: Force, Motion, and Energy (6)
PHY 622	Powerful Ideas and Quantitative Modeling: Electricity and Magnetism (6)

#### Elective Courses .....9 cr

Select three courses from the following:

PHY 518	Wave Phenomena and Optics
PHY 520	Modern Physics
PHY 525	Nuclear and Particle Physics
SCI 527	Current Topics in Science
SCI 632	Curriculum Trends in Science Teaching in the Secondary School
SCI 664	Teaching Science with Media
SCI 685	Evaluation in Science Education

#### Seminar .....3 cr

PHY 500	Physics Education Research Seminar
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#### Master's Project .....3 cr

PHY 690	Master's Project
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#### Total Required Credit Hours .....33 cr

All courses are 3 credit hours unless otherwise indicated.

## PHYSICS EDUCATION (7-12)

### Master of Science in Education with Alternative Certification Program

Program Code: MSED-NS

Major Code: PHA

HEGIS 1902.01

#### Physics Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Michael DeMarco, *Chair*

Science Building 262, (716) 878-5004

Dan L. MacIsaac, *Director of Graduate Programs and Associate Professor*

Science Building 222, (716) 878-3802

[www.buffalostate.edu/physics](http://www.buffalostate.edu/physics)

This master of science in physics education is designed for individuals who did not attain certification as part of their undergraduate curriculum. After completion of 200 clock hours of instruction, including 40 hours of field study, candidates may qualify for a NYSED transitional B certificate allowing them to teach in New York State.

#### Admission Requirements:

1. A bachelor's degree in physics or a related area from an accredited four-year institution with a minimum cumulative undergraduate GPA of 3.0 (4.0 scale) or approval of the department chair.
2. A minimum of 18 credit hours (total) in two sciences other than physics (may be completed during the program if not completed by the time of admission).
3. One year of college study or two years of high school study of a language other than English (may be completed during the program if not completed by the time of admission).
4. Passing scores on two New York State examinations: the Liberal Arts and Sciences Test (LAST) and the Physics Content Specialty Test (CST). (These exams may be taken after admission to the program but must be passed before a teaching position is accepted).
5. A written personal statement.
6. Three letters of reference.
7. An interview may be required.

(Note: These admission requirements are mandated in the Transitional B certification regulations.)

#### Program Requirements

#### Exceptional Education and Educational Foundations .....6 cr

EDF 529	Adolescent Psychology
Select one course from the following:	
EXE 500	Individuals with Special Needs
EXE 577	Teaching Individuals with Exceptionalities in the Regular Classroom

<b>Literacy</b> .....	<b>6 cr</b>
EDU 417 Adolescent Literacy	
<i>Select one course from the following:</i>	
EDU 416 Teaching Literacy in Middle and Secondary Schools	
EDU 609 Improving Reading in the Content Areas	
<b>Physics Teaching Methods</b> .....	<b>6 cr</b>
PHY 510 Process Skills in Physics Teaching (6)	
<b>Physics Content with Model Pedagogy</b> .....	<b>12 cr</b>
PHY 620 Powerful Ideas and Quantitative Modeling: Force, Motion, and Energy (6)	
PHY 622 Powerful Ideas and Quantitative Modeling: Electricity and Magnetism (6)	
<b>Electives</b> .....	<b>6 cr</b>
PHY 518 Wave Phenomena and Optics	
PHY 520 Modern Physics	
PHY 525 Nuclear and Particle Physics	
PHY 616 Advanced Dynamics	
PHY 618 Advanced Electricity and Magnetism I	
SCI 527 Current Topics in Science	
SCI 632 Curricular Trends in Science Teaching in the Secondary School	
SCI 664 Teaching Science with Media	
SCI 685 Evaluation in Science Education	
Or other courses by advisement.	
<b>Seminar</b> .....	<b>3 cr</b>
PHY 500 Physics Education Research Seminar	
<b>Mentored Physics Teaching</b> .....	<b>3 cr</b>
PHY 502 Initial Teaching Experience for Alternative Certification	
<b>Master's Project</b> .....	<b>3 cr</b>
PHY 690 Master's Project	
<b>Other science courses</b> .....	<b>18 cr</b>
18 credits spread over two other sciences. These may be undergraduate courses.	
<b>Total required Credit Hours</b> .....	<b>45 cr</b>
All courses are 3 credit hours unless otherwise indicated.	

## SOCIAL STUDIES EDUCATION (7-12)

### Master of Science in Education Program

Program Code: MSED-NS

Major Code: SSS

HEGIS 2201.01

#### History and Social Studies Education Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

David A. Carson, *Chair*

Classroom Building C205, (716) 878-5412

[www.buffalostate.edu/history](http://www.buffalostate.edu/history)

The master of science in social studies education (7-12) program helps candidates become educational leaders and innovative change agents as they acquire eligibility for permanent/professional teaching certification for grades 7-12.

The program is based on a model that gives equal weight to pedagogy and content matter. Fifteen credit hours of social studies education/pedagogy and 15 credit hours of history/social sciences are required for the M.S. in education degree. The social studies education/pedagogy portion of the program consists of courses in social studies curriculum, social studies methods, theory, and research methods to address the curricular concerns of the National Council for the Social Studies. The history/social science portion is divided into 9 credit hours of concentration and 6 credit hours of electives. Furthermore, the program links pedagogy and the content area by requiring two block courses (6 credit hours each) so students concurrently take a history and related pedagogy course in the same semester.

At the completion of 12 credit hours of coursework in the program, the student must have achieved a minimum GPA of 3.0 (4.0 scale). Prior to the completion of 12 credit hours, the student must file an application for candidacy, which is a written contract specifying the courses to be completed in the master's program. Advisement: Each student is assigned an academic adviser. It is imperative that students regularly consult with their advisers. All students must have their programs of study approved by their advisers and the department chair.

#### *Admission Requirements:*

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale).
2. A New York State Certificate of Qualification (CQ), provisional certificate, or initial certificate to teach social studies.
3. 36 credit hours in history and/or the social sciences.

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

*Graduation Requirements:* (a) Successful completion of a master's thesis (SSE 795), or (b) a comprehensive examination, or (c) defense of a graduate portfolio.

#### **Program Requirements**

At least 15 credit hours must be from 600- or 700-level courses.

#### **Required Courses**<sup>1</sup> .....

**15 cr**  
History and/or social science courses; 9 or more credit hours must be concentrated in a single discipline.

#### **Professional Education Courses** .....

SSE 502*	Teaching Social Studies
SSE 513	Seminar in Secondary Social Studies Education
SSE 655*	Social Studies Laboratory
SSE 689	Research Methods and Techniques in Secondary Social Studies
SSE XXX	Social Studies Education Elective

\*Must be taken concurrently with one History content course

#### **Master's Thesis, Portfolio Defense, or Comprehensive Examination** .....

<i>Select one option:</i>	
SSE 795	Master's Thesis (3-6)
	Defense of Graduate Portfolio (0)
	Comprehensive Examination (0)

#### **Total Required Credit Hours** .....

**30-36 cr**  
<sup>1</sup>*Selected under advisement*  
All courses are 3 credit hours unless otherwise indicated.

## SOCIAL STUDIES EDUCATION (7-12)

### Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: SSS

HEGIS 2201.01

#### History and Social Studies Education Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

David A. Carson, *Chair*

Classroom Building C205, (716) 878-5412

[www.buffalostate.edu/history](http://www.buffalostate.edu/history)

The social studies education (7-12) postbaccalaureate teacher certification program leads to eligibility for a New York State initial certificate to teach social studies in grades 7-12. This program is designed for students who have earned a baccalaureate degree from an accredited college or university in history or social science, or another discipline with a 36-credit concentration in history and/or social science courses, and who intend to complete the coursework required for New York State certification to teach social studies in secondary or middle schools.

## SOCIAL STUDIES EDUCATION (7-12) *continued*

The program supplies the background knowledge necessary for teachers to implement the New York State learning standards for social studies in grades 7–12. It also meets the standards set by national professional organizations, such as the National Council for the Social Studies and the National Council for the Accreditation of Teacher Education.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

To student teach, a student must have a minimum cumulative GPA of 2.75 in the program, as well as maintain grades of C or higher in SSE 303 and SSE 309.

Financial Assistance: For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale) in all history and social science courses and overall.
2. 36 credit hours in history and/or the social sciences.
3. Acceptable evaluations on the PRAXIS II exam in social studies content. Students with deficient scores must take coursework to remedy areas of deficiency.

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

### Program Requirements

Content Area Courses or equivalents .....39-50 cr

#### A. Basic U.S. History Courses

HIS 106	American Life I
HIS 107	American Life II
HIS 415	History and Government of New York State

#### B. Basic World History Courses

Select two courses from the following:

HIS 115	Foundations of Western Civilization
HIS 116	Europe Since 1500
HIS 117	Twentieth Century Europe

HIS 230	World Civilizations
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#### C. Other World History Courses

Any two Asian, Middle Eastern, African, or Latin American history courses

#### D. Geography Courses

GEG 300	World Regional Geography
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Select from the following: GEG 102, 206, 309, 320, 360, 362, 364

#### E. Political Science Course

Select one course from the following:

PSC 102	Introduction to American Government
PSC 220	Development of American Constitutional Law
PSC 320	U.S. Constitution/Civil Liberties

#### F. Economics Course

Select one course from the following:

ECO 101	The Economic System
ECO 201	Principles of Macroeconomics
ECO 202	Principles of Microeconomics

#### G. Cultural Diversity Course

SSE 363	American Identity in Transition: Diversity and Pluralism in the United States
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#### H. Elective Courses<sup>1</sup> (0-11 cr)

History and/or social science courses

Foreign Language Courses .....6 cr  
One year or equivalent

Professional Education Courses .....30 cr

EDF 303	Educational Psychology
EDU 416	Teaching Reading in Middle and Secondary Schools
ENG 309	Teaching and Evaluating Writing
PSY 357	Adolescent and Young Adult Development
SSE 200	Introduction to Secondary Teaching
SSE 303	Methods and Materials in Teaching Middle School Social Studies
SSE 309	Methods and Materials in Teaching High School Social Studies
SSE 370	Computer Technology in the Social Studies Classroom

Select one course from the following:

EXE 100	Nature and Needs of Individuals with Special Needs
EXE 372	Foundations of Teaching Secondary Students with Disabilities

Select one course from the following:

SSE 402	Historical and Philosophical Foundations of Social Education
SSE 407	The Teaching of History

Student Teaching Courses .....12 cr

SSE 409	Student Teaching of Social Studies in the Middle School (6)
SSE 410	Student Teaching of Social Studies in Senior High School (6)

Total Required Credit Hours .....92 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

## SOCIAL STUDIES EDUCATION (7-12; 5-6 EXTENSION)

### Postbaccalaureate Teacher Certification Program

Program Code: PBC-NS

Major Code: SSX

HEGIS 2201.01

### History and Social Studies Education Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

David A. Carson, *Chair*

Classroom Building C205, (716) 878-5412

[www.buffalostate.edu/history](http://www.buffalostate.edu/history)

The social studies education (7–12 with 5–6 extension) postbaccalaureate teacher certification program leads to eligibility for a New York State initial certificate to teach social studies in grades 5–12. This program is designed for students who have earned a baccalaureate degree in history, a social science, or another discipline with a 36-credit concentration in history and/or social science courses from an accredited college or university and who intend to complete the coursework required for New York State certification to teach social studies in secondary or middle schools.

The program supplies the background knowledge necessary for teachers to implement the New York State learning standards for social studies in grades 5–12. It also meets the standards set by national professional organizations, such as the National Council for the Social Studies and the National Council for the Accreditation of Teacher Education.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

To student teach, a student must have a minimum cumulative GPA of 2.75 in the program, as well as maintain grades of C or higher in SSE 303 and SSE 309.

Financial Assistance: For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale) in all history and social science courses and overall.

2. 36 credit hours in history and/or the social sciences.
3. Acceptable evaluations on the PRAXIS II exam in social studies content. Students with deficient scores must take coursework to remedy areas of deficiency.

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

### Program Requirements

**Content Area Courses** .....39–50 cr  
Or equivalents:

#### A. History of the Western Hemisphere Courses

HIS 106	American Life I
HIS 107	American Life II
HIS 308	History of Canada
or	
HIS 316	Modern Canada
HIS 314	Modern Latin America
HIS 415	History and Government of New York State

#### B. History of the Eastern Hemisphere Courses

Select two courses from the following:

HIS 115	Foundations of Western Civilization
HIS 116	Europe Since 1500
HIS 117	Twentieth Century Europe
HIS 230	World Civilizations

#### C. Geography Courses (by advisement)

GEG 300	World Regional Geography
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Select from the following: GEG 102, 206, 309, 320, 360, 362, 364

#### D. Political Science Course

Select one course from the following:

PSC 102	Introduction to American Government
PSC 220	Development of American Constitutional Law
PSC 320	U.S. Constitution/Civil Liberties

#### E. Economics Course

Select one course from the following:

ECO 101	The Economic System
ECO 201	Principles of Macroeconomics
ECO 202	Principles of Microeconomics

#### F. Cultural Diversity Course

SSE 363	American Identity in Transition: Diversity and Pluralism in the United States
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#### G. Elective Courses<sup>1</sup> (0-11 cr)

History and/or social science courses  
Foreign Language Courses (6 cr)  
One year or equivalent

**Professional Education Courses** .....30 cr

EDF 303	Educational Psychology
EDU 416	Teaching Reading in Middle and Secondary Schools
ENG 309	Teaching and Evaluating Writing
PSY 357	Adolescent and Young Adult Development
SSE 200	Introduction to Secondary Teaching
SSE 303	Methods and Materials in Teaching Middle School Social Studies
SSE 309	Methods and Materials in Teaching High School Social Studies
SSE 370	Computer Technology in the Social Studies Classroom

Select one course from the following:

EXE 100	Nature and Needs of Individuals with Special Needs
EXE 372	Foundations of Teaching Secondary Students with Disabilities

Select one course from the following:

SSE 402	Historical and Philosophical Foundations of Social Education
SSE 407	The Teaching of History

**Student Teaching Courses** .....15 cr

SSE 409	Student Teaching of Social Studies in the Middle School (6)
SSE 410	Student Teaching of Social Studies in Senior High School (6)
SSE 488	Internship: Middle Childhood and Adolescence Education

**Total Required Credit Hours** .....95 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

## SPANISH EDUCATION (7–12)

### Postbaccalaureate Teacher Certification Program

Program Code: PBC-AH

Major Code: SPS

HEGIS 1105.01

#### Modern and Classical Languages Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Deborah L. Hovland, *Chair*

Mark K. Warford, *Program Coordinator and Associate Professor*

Bishop Hall 122, (716) 878-5414

[www.buffalostate.edu/languages](http://www.buffalostate.edu/languages)

The Spanish education (7–12) postbaccalaureate teacher certification program leads to eligibility for a New York State initial certificate to teach Spanish in grades 7–12. This program is designed for students who have earned a baccalaureate degree in Spanish or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach Spanish in secondary or middle schools.

The program provides the background necessary for teachers to implement the New York State learning standards for Languages Other Than English (LOTE) 7–12. It also meets the standards set by national professional organizations, such as the American Council of Teachers of Foreign Languages and the National Council for Accreditation of Teacher Education.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

It takes approximately three to four semesters to complete certification requirements at Buffalo State College.

Students are responsible for any additional certification requirements, including the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills written test for provisional/initial certification, and child abuse certification.

To student teach, a student must have achieved a minimum GPA of 2.75 in Spanish coursework and overall, and must have earned a minimum grade of C in FLE 405 and FLE 406. Also, the student must complete an ACTFL-Approved Oral Proficiency Interview (OPI) in order to demonstrate Advanced-Low Proficiency in Spanish. If Advanced-Low Proficiency is not achieved, an additional upper-level Spanish course, chosen in consultation with the student's advisor, must be successfully completed.

*Financial Assistance:* For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

#### *Admission Requirements:*

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.75 (4.0 scale) and a major in Spanish language, literature, and culture (or a related discipline with a minimum of 36 credit hours in Spanish).\*

2. A minimum GPA of 2.75 in Spanish coursework and overall.

3. Successful completion of two written essays (one in English, one in Spanish) administered by the department as part of the interview process.

4. A personal interview with the program coordinator, department chair, or other designated official.

\*Applicants who do not meet these admission requirements may take courses at Buffalo State to become eligible to apply to the program.

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

## SPANISH EDUCATION (7-12) *continued*

### Program Requirements

#### Required Spanish Courses<sup>1</sup> .....6 cr

*Select two courses from the following:*

SPA 303	Introduction to Spanish Literature
SPA 305	Spanish Phonetics
SPA 306	The Civilization of Spain
SPA 307	Survey of Spanish Literature
SPA 308	Survey of Spanish Literature
SPA 309	The Civilization of Latin America
SPA 310	Survey of Spanish American Literature
SPA 311	Survey of Spanish American Literature
SPA 405	Old Spanish
SPA 415	Advanced Grammar and Composition
SPA 416	Advanced Conversation
SPA 495	Special Project
SPA 496	Seminar <sup>1</sup>

#### Professional Education Courses .....24 cr

EDF 303	Educational Psychology
EDF 403	Historical and Philosophical Foundations of Secondary Education
EDU 416	Teaching Reading in Secondary Schools
EXE 372	Foundations of Teaching Secondary Students with Disabilities
FLE 200	Field Experience in Foreign Language Education
FLE 316	Teaching Reading in a Foreign Language in Middle School
FLE 405	Methods and Materials for Teaching Foreign Languages in the Secondary Schools
FLE 406	Techniques for Teaching and Evaluating Foreign Languages in Middle and Secondary Schools

#### Student Teaching Courses .....12 cr

FLE 407	Student Teaching of Foreign Languages in the Middle/Junior High School (6)
FLE 408	Student Teaching of Foreign Languages in the High School (6)

#### Total Required Credit Hours .....42 cr

<sup>1</sup> *Selected under advisement*

All courses are 3 credit hours unless otherwise indicated.

## SPECIAL EDUCATION: EARLY CHILDHOOD

## SPECIAL EDUCATION: CHILDHOOD

## SPECIAL EDUCATION: ADOLESCENCE

## TEACHING BILINGUAL EXCEPTIONAL INDIVIDUALS

### Master of Science in Education Programs

Special Education: Early Childhood Program Code:

MSED-Ed

Major Code: EXC

Special Education: Childhood Program Code: MSED-ED

Major Code: XCE

Special Education: Adolescence Program Code:

MSED-ED

Major Code: EXA

Teaching Bilingual Exceptional Individuals Program

Code: MSE-ED

Major Code: BXE

HEGIS 0808

### Exceptional Education Department

National Council for Accreditation of Teacher Accreditation (NCATE) Accredited

Kerin Miller, *Interim Chair and Bilingual Program Coordinator*

Ketchum Hall 201, (716) 878-5317

General Information (voice mail): (716) 878-5317

[www.buffalostate.edu/exceptionaleducation](http://www.buffalostate.edu/exceptionaleducation)

The special education and teaching bilingual exceptional individuals programs lead to a master of science in education degree and eligibility for New York State certification in special education. These graduate programs are designed for students with undergraduate majors in education or special education.

The Exceptional Education Department offers three specialty programs in special education: early childhood, childhood, and adolescence. Students who are not provisionally/initially certified in special education must complete 15–18 credit hours of preliminary coursework in addition to the program area requirements. Required preliminary courses are listed under each program area below. All four programs require the completion of a research component: EXE 684 and EXE 690, which must be taken in sequential order at the end of the program.\*

*Advisement:* Because of the variety of options available in the department, it is imperative that majors and premajors seek advisement as early as possible. Students should contact their assigned academic advisers. The student designs programs of study with his or her adviser according to the student's goals and background.

*Practicum:* Practicum assignments link theoretical coursework with the applied demands of a wide variety of internship settings. Practicum sites are available to meet the needs and interests of nearly all students and are selected by the program coordinator.

**Certification:** Students in the department who are certified in early childhood education, childhood education, or adolescent education must fulfill course and degree requirements for New York State certification in special education and/or teaching bilingual exceptional education.

**Admission Requirements:**

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.5 (4.0 scale). Admission is competitive; not all qualified applicants are admitted.
  2. Certification in early childhood special education, childhood special education, or adolescence special education. Applicants with certification in early childhood education, childhood education, or adolescence education must meet additional special education certification requirements once enrolled.
  3. Employment or other experience relevant to the graduate course of study.
  4. A written statement describing the applicant's philosophy of education and relevant experiences in the field. This statement must adhere to standard written English.
  5. Faculty review.
  6. Completion of a special application (available from the department or download from [www.buffalostate.edu/graduateschool/admissions](http://www.buffalostate.edu/graduateschool/admissions)).
  7. The ability to speak English and Spanish, and an oral interview (for teaching bilingual exceptional individuals program applicants only).
- In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

Successful completion of the undergraduate program in exceptional education at Buffalo State is not a guarantee of admission to a graduate program. A point system based on the above criteria is used to evaluate applicants. Applicants with the highest point totals are admitted to the program each admission period. Only students admitted to the major (as majors or premajors) may take courses other than EXE 500.

**Premajor Status:** Students may not apply for premajor status. They apply to the graduate program, and the department decides if they are accepted to the program as majors or premajors. Premajors may enroll, by advisement, in two EXE courses at the 500 level (e.g., EXE 500, EXE 501) only. Premajors may not register for courses identified as "majors only" during the preregistration period. Student teaching and other fieldwork experiences are closed to premajors. There is no waiting list for admission to the Exceptional Education Department. Premajors apply for admission as majors by submitting a change of major form to the Graduate School during or after the completion of two EXE courses. Premajors are not guaranteed admission to the program.

**Special Education: Early Childhood Program (6340)**

This program prepares early interventionists and teachers to work with infants and young children with disabilities—or young children at risk for becoming disabled—and their families. The program is cross-categorical; prospective teachers receive coursework related to working with students with physical, intellectual, sensory, communication, and/or behavioral disabilities.

The role of the early interventionist or preschool teacher is to facilitate the child's development of social, motor, communication, self-help, cognitive, and behavioral skills. Interventionists are expected to design activities and environments to enhance the child's concept of self, sense of competence and control, and independence. Because a number of educational programs serving this population subscribe to an interdisciplinary approach, much of the assessment, planning, and implementation of programs is done in collaboration with other members of the professional team.

\*Admission to EXE 684 is by special permission. An application is completed the semester prior to admission. See the department office for application deadlines.

**Preliminary Courses.....15 cr**  
 Required for students without provisional/initial certification in special education

EXE 500	Individuals with Special Needs
EXE 501	Educational Assessment Techniques for Special Education
EXE 502	Contingency Management
EXE 504	Graduate Practicum in Special Education (6)

**Required Courses .....24 cr**

EXE 510	Strategies for Cognition and Emergent Literacy in Young Children with Disabilities
EXE 612	Managing the Behavior of Young Children with Disabilities
EXE 620	Curriculum for Individuals with Moderate and Severe Disabilities
EXE 628	Collaboration and Consultative Practices in Inclusive Settings
EXE 650	Assessment of Young Children with Disabilities
EXE 652	Intervention for Young Children with Disabilities
EXE 682	Instructional Field Experience in Special Education
EXE 684	Graduate Seminar in Exceptional Education

**Elective Courses<sup>1</sup> .....6 cr**  
*Select two courses from the following:*

EXE 518	Individuals with Physical Disabilities
EXE 530	Parent and Family Involvement in Special Education Programs
EXE 534	Understanding Students with Behavior Problems in the Classroom
EXE 544	Models of Classroom Discipline for Students with Disabilities
EXE 631	Adapting Language Arts and Reading Instruction for Students with Mild Disabilities
EXE 632	Direct Instruction Intervention Models for Students with Special Needs
SLP 540	Childhood Language Disabilities

**Master's Project or Master's Thesis .....3-6 cr**  
*Select one option:*

EXE 690	Master's Project
EXE 695	Master's Thesis (6)

**Total Required Credit Hours .....33-51 cr**  
<sup>1</sup>*Selected under advisement*  
 All courses are 3 credit hours unless otherwise indicated.

**Special Education: Childhood Program (6341)**

This program prepares teachers for delivery of educational services in classrooms with typical students. It prepares special education teachers to work closely with general educators in a consultative or collaborative role to help infuse special education practices into the general education class. The coursework is designed to familiarize teachers with curricular expectations and content in general education. It also prepares teachers to make appropriate modifications to the curriculum for students with mild disabilities in general educational settings.

The goal of this program is to prepare special educators, working closely with general educators, to provide the best teaching strategies to promote student learning, as well as to design positive environments that foster learning for students both with and without disabilities.

**Preliminary Courses.....18 cr**  
 Required for students without provisional/initial certification in special education

EXE 500	Individuals with Special Needs
EXE 501	Educational Assessment Techniques for Special Education
EXE 502	Contingency Management
EXE 503	Instructional Strategies (Foundations)
EXE 504	Graduate Practicum in Special Education (6)

**Required Courses.....24 cr**

EXE 620	Curriculum for Individuals with Moderate and Severe Disabilities
EXE 628	Collaboration and Consultative Practices in Inclusive Settings
EXE 631	Adapting Language Arts and Reading for Students with Mild Disabilities
EXE 632	Direct Instruction Intervention Models for Students with Special Needs
EXE 633	Adapting Content Area Instruction for Children and Adolescents with Disabilities
EXE 634	Applied Behavior Analysis
EXE 636	Promoting Effective Social Interaction in the Schools
EXE 684	Graduate Seminar in Exceptional Education

## SPECIAL EDUCATION: CHILDOOD *continued*

### Elective Courses<sup>1</sup> .....3 cr

Select one course from the following:

EXE 518	Individuals with Physical Disabilities
EXE 530	Parent and Family Involvement in Special Education Programs
EXE 534	Understanding Students with Behavior Problems in the Classroom
EXE 544	Models of Classroom Discipline for Students with Disabilities
EXE 627	Transition from School to Adult Community Life
EXE 644	Advanced Behavior Analysis for Challenging Behaviors
EXE 650	Assessment of Young Children with Disabilities
EXE 652	Intervention for Young Children with Disabilities
EXE 682	Instructional Field Experience in Special Education

### Master's Project or Master's Thesis .....3-6 cr

Select one option:

EXE 690	Master's Project
EXE 695	Master's Thesis (6)

### Total Required Credit Hours .....30-51 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

## Special Education: Adolescence Program (6342)

This program prepares teachers to work with students with mild disabilities at the secondary level. It is intended to develop multifaceted teachers who possess a number of key competencies. Secondary special educators are prepared to work collaboratively with general education subject matter specialists, as well as with career education personnel. Graduates of this program become knowledgeable in subject matter content, as well as career and vocational education. They also acquire a solid base in the technology of teaching, with knowledge related to direct and interactive instruction (cooperative learning and peer tutoring).

The adolescence program recognizes the unique needs of adolescents with learning problems. Many students who continue to experience learning difficulties at the secondary level (due to the lack of appropriate instruction or services) may become frustrated and drop out of school. Others who continue in the educational system until they reach age 21 and are no longer eligible to receive services are unprepared to enter the community as independent, participating members of the workforce or community. A major goal of this program is to prepare teachers to address students' skill deficits, social adaptation problems, and vocational competence.

### Preliminary Courses .....18 cr

Required for students without provisional/initial certification in special education

EXE 500	Individuals with Special Needs
EXE 501	Educational Assessment Techniques for Special Education
EXE 502	Contingency Management
EXE 503	Instructional Strategies (Foundations)
EXE 504	Graduate Practicum in Special Education (6)

### Required Courses .....27 cr

EDF 500	Multicultural Education
EXE 530	Parent and Family Involvement in Special Education Programs
EXE 544	Models of Classroom Discipline for Students with Disabilities
EXE 627	Transition from School to Adult Community Life
EXE 628	Collaboration and Consultative Practices in Inclusive Settings
EXE 632	Direct Instruction Intervention Models for Students with Special Needs
EXE 682	Instructional Field Experience in Special Education
EXE 684	Graduate Seminar in Exceptional Education
CTE 605	Vocational Guidance for Career Exploration

### Elective Courses<sup>1</sup> .....3 cr

Select one course from the following:

EXE 518	Individuals with Physical Disabilities
EXE 534	Understanding Students with Behavior Problems in the Classroom
EXE 620	Curriculum for Individuals with Moderate and Severe Disabilities
EXE 631	Adapting Language Arts and Reading Instruction for Students with Mild Disabilities
EXE 634	Applied Behavior Analysis
EXE 636	Promoting Effective Social Interaction in the Schools

EXE 644 Advanced Behavior Analysis for Challenging Behaviors

### Master's Project or Master's Thesis .....3-6 cr

Select one option:

EXE 690	Master's Project
EXE 695	Master's Thesis (6)

### Total Required Credit Hours .....33-54 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

## Teaching Bilingual Exceptional Individuals (6326)

Graduates of this program receive a master of science in education degree and are recommended for New York State certification in special education and bilingual education. Job opportunities are available for a full range of services to individuals with disabilities. Graduates will be eligible for placements in inclusion settings, resource rooms, self-contained classrooms, and residential services. State certification allows graduates to work with individuals with mild disabilities, from early childhood to adult, in both monolingual and bilingual (Spanish-English) settings.

All courses must be planned with an academic adviser and approved by the department chair.

*Admission Requirements:*

1. Current enrollment in one of the special education master's programs (i.e., early childhood, childhood, or adolescence), or
2. Current enrollment in the speech-language pathology master's program, or
3. A master's degree in special education.

### Required Courses .....18 cr

BXE 623	Policies and Practices of Bilingual Education and Bilingual Special Education
BXE 625	Curriculum I: Strategies for Culturally and Linguistically Diverse Exceptional Students
BXE 626	Assessment Techniques in Bilingual Special Education
BXE 627	Curriculum II: Applied Strategies in Bilingual Education
BXE 628	Bilingual Special Education Field Practicum
EXE 684	Graduate Seminar in Exceptional Education

### Total Required Credit Hours .....18 cr

All courses are 3 credit hours unless otherwise indicated.

## Doctor of Philosophy Degree in Special Education

The Buffalo State College Exceptional Education Department and the University at Buffalo Learning and Instruction Department have developed a doctor of philosophy degree in special education. Students interested in more information about this program should contact Sharon Raimondi, Ph.D., (716) 645-2455, ext. 1143.

# SPEECH-LANGUAGE PATHOLOGY

## Master of Science in Education Program

Program Code: MSED-SP

Major Code: SLP

HEGIS 1220

### Speech-Language Pathology Department

Accredited by the Council on Academic Accreditation (CAA)

of the American Speech-Language-Hearing Association

National Council for Accreditation of Teacher Education (NCATE) Accredited

Constance Dean Qualls, *Chair*

Ketchum Hall 209, (716) 878-5502

www.buffalostate.edu/speech

Programs must be planned under advisement and approved by the director of graduate studies and the department chair. Students are expected to complete academic and clinical education requirements to qualify for the Certificate of Clinical Competence (CCC) in speech-language pathology issued by the American Speech-Language-Hearing Association (ASHA) and New York State licensure in speech-language pathology. Additional coursework may be required for teacher certification. Students must complete a minimum of three semesters of supervised practica in the Speech-Language-Hearing Clinic prior to placement at off-campus practica. Only students in good standing are permitted to enroll in SLP 505 Graduate Practicum in an Educational Setting and SLP 611 Externship in Communication Disorders. Students must meet with their academic adviser before initial registration to plan a program that will ensure completion of ASHA certification, New York State licensure, and New York State teacher certification requirements.

The speech-language pathology program is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association and is registered with the State Education Department for licensure in speech-language pathology and for the initial/professional teaching certificate (Teacher of the Speech and Hearing Handicapped).

Curriculum is currently under revision. Contact Department Chair for details.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 3.0 (4.0 scale).
  2. A minimum of 22 credit hours of undergraduate coursework in speech-language pathology that includes courses related to the normal development of speech, language, and hearing processes; courses related to disordered speech, language, and hearing; and courses related to the speech and hearing sciences. For ASHA and NCATE certification, the following courses are also required. If they were not taken at the undergraduate level, they will be added to the graduate program:
    - 3 credits in a biological science
    - 3 credits in the physical sciences
    - 3 credits in math (can be MAT 311)
    - 3 credits in the social and behavioral sciences
    - EDF 202 Child Development and Education
    - EDF 302 Educational Psychology: Elementary Education
    - EXE 100 Nature and Needs of Individuals with Special Needs
  3. Three letters of recommendation that attest to the applicant's potential as a graduate student. For students with an undergraduate major in speech-language pathology or communication sciences and disorders, two of the letters must come from faculty in the major. For students from other majors, two of the letters must come from faculty in the major.
  4. Graduate Record Examination (GRE) scores. All three scores will be evaluated.
  5. A written personal statement reflecting reasons for choosing this discipline.
- In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

*Application Deadline:* Applicants must apply by February 1 for summer or fall admission. No applications are accepted for spring admission.

### Program Requirements

<b>Required Courses</b> <sup>1</sup> .....	<b>35 cr</b>
SLP 501	Clinical Methods (2)
SLP 511	Neural Processes of Communication (2)
SLP 516	Diagnostic Principles and Procedures (2)
SLP 541	Language Disorders: Birth to Age 5
SLP 580	Research Methods in Speech-Language Pathology (2)
SLP 605	Contemporary Issues in Clinical Interactions: Families and Culture (2)
SLP 606	Fluency Disorders and Cleft Palate
SLP 607	Dysphagia Across the Life Span (2)
SLP 608	Neuromotor Speech Disorders Across the Life Span (2)
SLP 609	Disorders of Voice (2)
SLP 610	Evaluation and Treatment of Phonological Disorders (2)
SLP 615	Aural Rehabilitation
SLP 621	Augmentative and Alternative Communication (2)
SLP 622	Language Disorders of School-Aged Individuals
SLP 623	Acquired Language Disorders
<b>Practicum</b> <sup>1</sup> .....	<b>19 cr</b>
SLP 505	Graduate Practicum in an Educational Setting (6)
SLP 515	Clinical Practicum (7; 1-3 cr per semester)
SLP 611	Externship in Communication Disorders (6)
<b>Master's Project or Master's Thesis</b> <sup>1</sup> .....	<b>3-6 cr</b>
<i>Select one option:</i>	
SLP 690	Master's Project
SLP 695	Master's Thesis (3-6)
<b>Total Required Credit Hours</b> .....	<b>57-60 cr</b>

<sup>1</sup>*Selected under advisement*

All courses are 3 credit hours unless otherwise indicated.

## STUDENT PERSONNEL ADMINISTRATION

### Master of Science Program

Program Code: MS-SP

Major Code: SPD

HEGIS 0826

### Student Personnel Administration Department

Richard J. Herdlein, *Chair*

Bacon Hall 214C, (716) 878-3789

www.buffalostate.edu/spa

Founded in 1970, the student personnel administration (SPA) program has produced 1,400 alumni and continues to be one of the largest and most diverse programs in the country. The department provides students with the theoretical background and practical experience for professional work in many student personnel areas. The academic program includes an overview of knowledge, practice, problems, and administrative procedures related to institutions of higher education. It emphasizes the role of the student affairs professional in admissions, residence halls, financial aid, registration, orientation, academic and personal advisement, counseling, international student activities, minority student services, career development, student union activities, athletics, alumni affairs, and student affairs administration. The program is relevant not only to individuals currently involved in college personnel work, but also to those interested in working in client-centered careers in community agencies, health delivery, law enforcement, human resource administration, marketing, teaching, and consulting.

## STUDENT PERSONNEL ADMINISTRATION

*continued*

Students may focus on courses and internships in four concentration areas: administration, counseling and student development, community education, and research and evaluation.

**Internships:** The professional training of the student affairs professional depends heavily on internships that provide practical experience in applying classroom theories. The internship is a vehicle for diversified professional training that encompasses research, planning, and organization; the development of priorities; and principles of student personnel administration and services-oriented work. Furthermore, the internship meets the student's self-education needs, inspires self-confidence and self-reliance, provides experience in ethical behavior when dealing with students and colleagues, and encourages a sense of responsibility to the profession.

**Assistantships:** Graduate assistantships and other employment opportunities are available in student affairs, academic affairs, and other areas at Buffalo State. Recipients may receive a stipend, as well as waivers of tuition and room costs. For information about hall director positions, contact the director of residence life, Porter Hall; for information about other positions, contact the appropriate campus offices or the Career Development Center, Cleveland Hall 306. Employment opportunities may be available, on a competitive basis, in nearby institutions of higher education or in community agencies. For college-wide assistantship opportunities, visit [www.buffalostate.edu/graduateschool](http://www.buffalostate.edu/graduateschool).

**Professional Organizations:** SPA graduates gain mentoring, networking, and professional development support through several organizations, including the Buffalo State Graduate Association for Student Personnel Administrators (GASPA), the Buffalo State Student Personnel Administration (SPA) Alumni Chapter, the College Student Personnel Association of New York State (CSPA), the American College Personnel Association (ACPA), and the National Association of Student Personnel Administrators (NASPA). Information and applications are available through the SPA faculty or in the Student Personnel Administration Department.

**Graduation Requirements:** A minimum of 36 credit hours are needed for degree completion: 27 credit hours of required coursework and 9 hours of electives. After completing 6 to 12 credit hours, students apply for degree candidacy and are subject to continuous review by the faculty to ensure adherence to professional standards in the classroom and internships. A written comprehensive examination must be completed during a student's final semester (offered in November and April of each academic year).

Contact a program faculty adviser for details on course changes and assistance in choosing an area of concentration (9 elective credit hours and 6 internship/practicum credit hours), and to plan and complete the degree candidacy form.

### **Admission Requirements:**

1. A bachelor's degree from an accredited college or university with a minimum cumulative GPA of 2.8 (4.0 scale). Applicants who hold a bachelor's degree but do not meet the minimum GPA requirement may be admitted if they either attain a minimum combined quantitative/verbal score of 1000 on the Graduate Record Examination (GRE) or enroll in adviser-designated graduate work as an accepted provisional student and achieve a minimum cumulative GPA of 3.5.

2. Prerequisite academic work and skill development that provides evidence of the applicant's capability to accomplish the master's degree program requirements.

3. Consideration can be given to work-related experience and involvement in the field.

4. Three letters of recommendation.

5. A letter/essay indicating reasons for interest in the program. This will be evaluated as a writing sample.

6. A current résumé.

7. An interview with SPA program faculty may be required.

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

## Program Requirements

### Required Courses .....27 cr

CSP 616	American Higher Education
CSP 617	Student Development and Learning
CSP 618	Student Personnel Administration
CSP 622	Techniques of Counseling I
CSP 623	Techniques of Counseling II
CSP 624	Internship/Practicum I
CSP 625	Internship/Practicum II
CSP 650	Student Assessment Tests
CSP 689	Methods of Educational Research
Comprehensive Examination (offered in November and April; 0 cr)	

### Elective Courses<sup>1</sup> .....9 cr

*Select three courses from any of the following areas:*

- A. Administration
- |         |   |
|---------|---|
| CSP 504 | Community College Administration                      |
| CSP 619 | Management Systems and Leadership in Higher Education |
| CSP 620 | Planning and Finance in Higher Education              |
| CSP 651 | The Law and Higher Education                          |
| CSP 670 | The College Student Movement 1955–1975                |
- B. Counseling and Student Development
- |         |   |
|---------|---|
| CSP 630 | Group Counseling                                      |
| CSP 632 | Vocational Development and Career Counseling          |
| CSP 670 | The College Student Movement 1955–1975                |
| CSP 711 | Seminar in Techniques of Counseling and Psychotherapy |
- C. Community Education
- |         |   |
|---------|---|
| CSP 504 | Community College Administration                      |
| CSP 619 | Management Systems and Leadership in Higher Education |
| CSP 632 | Vocational Development and Career Counseling          |
| CSP 670 | The College Student Movement 1955–1975                |
- D. Research and Evaluation
- |         |  |
|---------|--|
| CSP 690 | Master's Project                                       |
| CSP 695 | Thesis; may be substituted for Master's Project (6)    |
| EDF 520 | Educational Statistics I (Descriptive and Inferential) |
- E. Any Concentration Area
- |         |                                       |
|---------|---------------------------------------|
| CSP 590 | Independent Study (if research-based) |
| CSP 690 | Master's Project                      |

Other elective courses may be selected from related courses/workshops in various disciplines or interdisciplinary areas with adviser approval.

\*Can apply to other concentrations

### Total Required Credit hours .....36 cr

<sup>1</sup>Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

## TEACHING BILINGUAL EXCEPTIONAL INDIVIDUALS

See Special Education

# TECHNOLOGY EDUCATION

## Master of Science in Education Program

Program Code: MSED-SP

Major Code: TED

HEGIS 0839.01

### Technology Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Richard A. Butz, *Chair*

Upton Hall 314, (716) 878-6018

www.buffalostate.edu/technology

This program develops and enhances technological and professional competencies in technology education and provides a basis for advanced study. Completion of the program leads to the master of science in education degree and satisfies the requirements for eligibility for professional New York State teaching certification.

Program variations must be approved by the student's academic adviser and the department chair. At least half the credit hours in the program must be in technology education.

#### Admission Requirements:

1. A bachelor's degree in industrial arts/technology education from an accredited college or university with a minimum cumulative GPA of 2.3 (4.0 scale), or a New York State initial certificate to teach industrial arts/technology.

2. Acceptance by the program coordinator.

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

This program is currently under review. Please contact the Technology Department for further information.

### Program Requirements

#### Required Courses .....15-18 cr

CTE/BUS 602	Curriculum Development and Planning
EDF 611	Evaluation in Education
EDF/INT 689	Methods and Techniques of Educational Research
TED 600	Foundations of Technology Education

#### Elective Courses<sup>1</sup> .....12-15 cr

#### Master's Project or Master's Thesis .....3-6 cr

Select one option:

TED 690	Master's Project
TED 695	Master's Thesis (6)

#### Total Required Credit Hours .....30 cr

<sup>1</sup> Selected under advisement

All courses are 3 credit hours unless otherwise indicated.

# TECHNOLOGY EDUCATION

## Postbaccalaureate Teacher Certification Program

Program Code: PBC-SP

Major Code: TED

HEGIS 0839.01

### Technology Department

National Council for Accreditation of Teacher Education (NCATE) Accredited

Richard A. Butz, *Chair*

Upton Hall 314, (716) 878-6018

www.buffalostate.edu/technology

The technology education postbaccalaureate teacher certification program leads to eligibility for a New York State initial certificate to teach technology education in grades kindergarten-12. This program is designed for students who have earned a baccalaureate degree in a technology-related field from an accredited college or university and intend to complete coursework required for New York State certification to teach technology.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

*Financial Assistance:* For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

#### Admission Requirements:

1. A bachelor's degree from an accredited college or university.

2. Completion of 30 credit hours in technology coursework, including biotechnology, communication, construction, manufacturing, and transportation systems or their equivalents.

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

### Program Requirements

#### Required Courses .....21 cr

BME 301	Principles of Occupational Education
BME 302	Curriculum and Evaluation in Occupational Education
EDF 303	Educational Psychology
EDU 416	Teaching Literacy in the Secondary School
EXE 372	Teaching Adolescents with Disabilities
TEC 360	Technology Education Methods and Evaluation
TED 100	Introduction to Technology Education

#### Professional Semesters .....12 cr

TED 450	Professional Semester (6)
TED 451	Professional Semester (6)

#### Total Required Credit Hours .....33 cr

All courses are 3 credit hours unless otherwise indicated.