

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Computer Science Education, Advanced Certificate Post Master's

Hegis Number: 0701.01

Program Code: 43000/ CSEDU-ADVT

Effective Term: Fall 2026

1. **Type of Change:** Certificate Requirements (addition of a new sequence)

2. **From:**

Computer Science Education, Advanced Certificate Post Master's (21 Credits)

This Advanced Certificate will prepare candidates to teach Computer Science Education at all grade levels. Courses will be offered in an online format. ~~Candidates will complete 7 courses and a minimum of 100 clock hours of field/clinical experience.~~

Program of Study:

~~The program of study consists of 21 credits (7 core courses). Program completion qualifies a teacher who currently holds a valid teaching certificate to add computer science to the base certificate.~~

Fulfill ALL of the following requirements:

Computer Science Education

Complete ALL of the following Courses:

• ESC 537 - Principles of Computer Science Education I	3
• ESC 538 - Principles of Computer Science Education II	3
• ESC 539 - Fieldwork in Computer Science Education	3

AND

Computer Science Content

Complete ALL of the following Courses:

• CMP 566 - Computer Thinking for Educators	3
• CMP 567 - Programming Methods I for Educators	3
• CMP 568 - Programming Methods II for Educators	3
• CMP 569 - Data Structures and Algorithms for Educators	3

Prerequisite

Additional Comments:

- Valid Initial/Provisional or Professional Teaching Certificate
- Grades of B or better in a Pre-Calculus Course
- Two letters of recommendation

- College or university instructor (required)
- Second recommendation can be obtained from another instructor or supervisor in a work setting.
- A 500-word essay focused on career goals.
- A current resume
- Applicants who satisfy the preliminary admission requirements will be invited to an individual interview with the program coordinator. If a candidate does not meet preliminary admission requirements, they can request a meeting to discuss conditional admission.

Course Sequence:**Fall 1**

- ~~ESC 537: Principles of Computer Science Education I~~
- ~~CMP 567: Programming Methods I for Educators~~

Spring 1

- ~~ESC 538: Principles of Computer Science Education II~~
- ~~CMP 568: Programming Methods II for Educators~~

Fall 2

- ~~CMP 566: Computer Thinking for Educators~~
- ~~CMP 569: Data Structures and Algorithms for Educators~~

Spring 2

- ~~ESC 539: Principles of Project Design and Evaluation in Computer Science Education~~

3. To:**Computer Science Education, Advanced Certificate Post Master's**

This Advanced Certificate will prepare candidates to teach Computer Science Education at all grade levels. Courses will be offered in an online format. Candidates can apply for one of two sequences below based on their qualifications and experience.

Program of Study

This program offers two distinct sequences. Candidates must select the sequence that aligns with their prior computer science teaching experience:

- Sequence 1 is for candidates who have no prior computer science teaching experience.
- Sequence 2 is for candidates with prior computer science teaching experience but do not hold a computer science teaching certificate.

Upon successful completion of the program, certified teachers will be eligible to add computer science to their existing base teaching certificate.

Sequence 1 (21 Credits): This sequence consists of 21 credits (7 core courses) and a minimum of 100 clock hours of field/clinical experience. Program completion qualifies a teacher who currently holds a valid teaching certificate to add computer science to the base certificate. This sequence is intended for candidates without prior computer science teaching experience in K-12, and who seek computer science certification at all grade levels.

Fulfill ALL of the following requirements:

Computer Science Education

Complete ALL of the following Courses:

• ESC 537 - Principles of Computer Science Education I	3
• ESC 538 - Principles of Computer Science Education II	3
• ESC 539 - Fieldwork in Computer Science Education	3

AND

Computer Science Content

Complete ALL of the following Courses:

• CMP 566 - Computer Thinking for Educators	3
• CMP 567 - Programming Methods I for Educators	3
• CMP 568 - Programming Methods II for Educators	3
• CMP 569 - Data Structures and Algorithms for Educators	3

Sequence 2 (12 Credits): This sequence consists of 12 credits (4 core courses). Program completion qualifies a teacher who currently holds a valid teaching certificate to add computer science to the base certificate. This sequence is intended for candidates who have prior computer science teaching experience in K-12 and seek computer science certification for all grades.

Fulfill ALL of the following requirements:

Computer Science Education

Complete ALL of the following Courses:

• CMP 566 - Computer Thinking for Educators	3
• CMP 567 - Programming Methods I for Educators	3
• CMP 568 - Programming Methods II for Educators	3
• CMP 569 - Data Structures and Algorithms for Educators	3

Prerequisite

Additional Comments:

- Valid Initial/Provisional or Professional Teaching Certificate
- Grades of B or better in a Pre-Calculus Course
- Two letters of recommendation
 - College or university instructor (required)

- Second recommendation can be obtained from another instructor or supervisor in a work setting.
- A 500-word essay focused on career goals.
- A current resume
- Applicants who satisfy the preliminary admission requirements will be invited to an individual interview with the program coordinator. If a candidate does not meet preliminary admission requirements, they can request a meeting to discuss conditional admission.

4. Rationale:

The Advanced Certificate in Computer Science Education was developed to prepare certified teachers to teach computer science at all grade levels, in alignment with the requirements set forth by the New York State Education Department (NYSED). This revision is being implemented in direct response to updated certification requirements issued by NYSED.

Previously, NYSED required candidates seeking Computer Science Education certification through an advanced certificate program to complete a minimum of 21 credit hours. In a recent policy update, NYSED has reduced the minimum credit requirement to 12 credit hours, provided these credits are drawn from core computer science, including computational thinking, programming principles, and data structures.

In response to this revised regulatory framework, the program will now offer two distinct sequences:

- A 21-credit sequence: for candidates without prior computer science teaching experience, which retains the original program structure and provides a comprehensive foundation in the discipline.
- A new 12-credit sequence: for candidates with prior experience teaching computer science, designed to meet NYSED's updated credit-hour minimum while still addressing the required content domains.

Both sequences continue to prepare certified teachers to effectively teach computer science at all grade levels and lead to an institutional recommendation for Computer Science certification through NYSED, contingent on candidates meeting all other certification criteria.

This change ensures continued compliance with state certification requirements while improving flexibility for experienced educators. Importantly, the program's learning outcomes and instructional objectives remain unchanged.

The program remains fully online to support accessibility and accommodate the needs of working professionals.

5. Date of departmental approval:

Department of Computer Science: 11/26/2025

Middle and High School Education: 11/15/2025

**LEHMAN COLLEGE
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DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: English Teacher, Grades 7-12 Alternative Transitional B Certification, MSED

Hegis Number: 0899.50

Program Code: 25802

1. Type of Change: Addition of Distance Education Format; Change in Degree Requirements

2. From:

Fulfills the academic requirements for Initial and Professional Certifications.

This program offers two tracks for candidates possessing a Trans B license from New York State.

- Track 1 (32 crs.): Alternative Transitional B candidates seeking initial certification in English Education 7-12.
- Track 2 (36 crs.): Alternative Transitional B candidates seeking dual certification in English Education 7-12 and SWD 7-12 Generalist.

Major Requirements - Admission Requirements

- Possess a bachelor's degree in English or its equivalent from an accredited college or university.
- Have earned a minimum cumulative index of 3.0 in the undergraduate record.
- A 500-word essay on interest in the program as it relates to long-term career goals.
- Two letters of recommendation.
- An interview with an English Education program coordinator that includes a transcript review.

Major Requirements – Overall

Earn at least 32 credits

Major Requirements - Track 1

Trans B Alternative Certification in English Education 7-12

Candidates who hold a valid Transitional B certificate in English Education grades 7-12 from New York State.

Core Education

Earn at least 9 credits from the following:

- ESC 501 - Psychological Foundations of Education
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

Methods of Teaching English in Middle and High School

Earn at least 12 credits from the following:

- ESC 522 - Teaching English in Middle and High School
- ESC 720 - Reading and Reading Materials for Adolescents
- ESC 721 - Literature for Middle and High School Students
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 730 - Methods of Teaching English in Middle and High School: Selected Topics
- ESC 772 - Evaluation and Assessment of Student Learning
- ESC 725 - Teaching English Grammar

English Electives

Earn at least 3 credits

Consult with an adviser in the English Education program for the appropriate course to satisfy this requirement.

Master's Project

Earn at least 3 credits from the following:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Teaching Internship

Earn at least 5 credits from the following:

- ESC 595 - Internship in Classroom Teaching
- ESC 612 - Student Teaching Seminar in Secondary Education

Major Requirements - Track 2

Trans B Alternative Dual Certification in English Language Arts 7-12 and Students with Disabilities, Generalist, Grades 7-12

Candidates with an undergraduate degree in English, who lack core education requirements and seek Trans B, Initial, and Professional Certifications in English 7-12 and Students with Disabilities (SWD), Generalist, Grades 7-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

Fulfill ALL of the following requirements:

Introductory Core

Complete ALL of the following Courses:

- EDS 780—Adolescent Development
- EDS 743 - Behavioral Assessment, Management, and Change

Foundations Core

Complete ALL of the following Courses:

- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

Pedagogical Core

Complete ALL of the following Courses:

- EDS 712 – The Adolescent with Disabilities
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- ESC 522 - Teaching English in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

Student Teaching

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Major Requirements - Additional Certification Requirements

Type: Completion requirement

~~In order to be recommended for initial certification in English Education 7-12, students must: (a) complete the master's degree with a cumulative index of 3.0 or better; (b) present passing scores on the following New York State examinations: Educating All Students (EAS), and English CST and (c) demonstrate successful completion of a liberal arts and sciences core.~~

~~In order to qualify for professional certification in English Education 7-12, in addition to the master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school which serves grades 7-12, and must meet any additional New York State requirements.~~

~~Qualified English Education 7-12 candidates may also apply to one of the following Advanced Certificates and extend their certifications accordingly:~~

- ~~(1) Teaching English to Speakers of Other Languages (TESOL P-12);~~
- ~~(2) Middle Childhood Extension, Grades 5-6;~~
- ~~(3) Bilingual Extension~~

3. To:

Initial and Professional Certifications.

This program offers three tracks for candidates possessing a Trans B license from New York State.

- Track 1 (32 credits): English 7-12 Hybrid/Campus.
- Track 2 (42 credits): Dual certification in English 7-12 and Students with Disabilities P-12 Hybrid/Campus
- Track 3 Online Option (an add-on sequence that permits Alternative Certification Trans B candidates in English 7-12 or Dual Certification English 7-12 and Students with Disabilities P-12 to complete Tracks 1-2 courses as asynchronous or video synchronous)

Major Requirements - Admission Requirements

- Possess a bachelor's degree in English or its equivalent from an accredited college or university.
- Have earned a minimum cumulative index of 3.0 in the undergraduate record.
- A 500-word essay on interest in the program as it relates to long-term career goals.
- Two letters of recommendation.
- An interview with an English Education program coordinator that includes a transcript review.

Major Requirements – Overall

Earn at least 32 credits

Major Requirements - Track 1 Hybrid/Campus Trans B Alternative Certification in English 7-12

Trans B Alternative Certification in English 7-12

Candidates who hold a valid Transitional B certificate in English 7-12 from New York State.

Core Education

Earn at least 9 credits from the following:

- ESC 501 - Psychological Foundations of Education
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

Methods of Teaching English in Middle and High School

Earn at least 12 credits from the following:

- ESC 522 - Teaching English in Middle and High School
- ESC 720 - Reading and Reading Materials for Adolescents
- ESC 721 - Literature for Middle and High School Students
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 730 - Methods of Teaching English in Middle and High School: Selected Topics
- ESC 772 - Evaluation and Assessment of Student Learning
- ESC 725 - Teaching English Grammar

English Electives

Earn at least 3 credits

Consult with an adviser in the English Education program for the appropriate course to satisfy this requirement.

Master's Project

Earn at least 3 credits from the following:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Teaching Internship

Earn at least 5 credits from the following:

- ESC 595 - Internship in Classroom Teaching
- ESC 612 - Student Teaching Seminar in Secondary Education

Major Requirements - Track 2 Hybrid/ Campus Trans B Alternative Dual Certification in English 7-12 and Students with Disabilities P-12 (42 credits)**Trans B Alternative Dual Certification in English 7-12 and Students with Disabilities P-12**

Candidates with an undergraduate degree in English, who lack core education requirements and seek Trans B, Initial, and Professional Certifications in English 7-12 and Students with Disabilities P-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

Fulfill ALL of the following requirements:**Introductory Core****Complete ALL of the following Courses:**

- EDS 701 – Understanding the Individual with Disabilities
- EDS 743 - Behavioral Assessment, Management, and Change

Foundations Core**Complete ALL of the following Courses:**

- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

Pedagogical Core**Complete ALL of the following Courses:**

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings
- EDS 712 – The Adolescent with Disabilities
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- ESC 522 - Teaching English in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools

- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

Student Teaching**Complete ALL of the following Courses:**

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Track 3 Online Option (an add-on sequence that permits Alternative Certification Trans B candidates in English 7-12 or Dual Certification English 7-12 and Students with Disabilities P-12 to complete Tracks 1-2 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

4. Rationale:

- We are requesting a distance education option so candidates can complete their courses online. This will not affect the program's learning objectives since only the course delivery mode is changing.
- We have simplified the descriptions and eliminated extraneous information.
- The Students with Disabilities program has replaced EDS 780 with EDS 701.
- NYSED has changed the SWD certification to include all grades (P-12). We added the new early childhood/childhood methods courses (EDE 723 and EDE 724) to meet this new certification requirement.
- None of these changes affect learning outcomes for this department or program.

5. Date of departmental approval: September 11, 2025

**LEHMAN COLLEGE
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DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: English Education 7-12, MSED

Hegis Number: 1501.01

Program Code: 25803

1. Type of Change: Addition of Distance Education Format; Admission Requirements; Change in Degree Requirements

2. From:

~~Fulfills the academic requirements for Initial and Professional Certifications.~~

This program offers ~~five~~ sequences and is designed for students seeking a master's degree in English Education, ~~grades 7-12~~ and ~~offers dual certification options for~~ Teaching Students with Disabilities (SWD) 7-12 Generalist.

Major Requirements - Admission Requirements

Type: Prerequisite

- Possess a bachelor's degree in English or its equivalent from an accredited college or university.
- Have earned a minimum cumulative index of 3.0 in the undergraduate record.
- If conditionally admitted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.
- For Sequence 1, present evidence of NYS teacher certification in English Education 7-12.
- For Sequence 2, present evidence of meeting core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.
- For Sequences 1-4, evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.
- For Sequence 5, submit passing scores on the New York State Content Specialty Tests (CSTs) in English and Students with Disabilities.
- A 500-word essay on interest in the program as it relates to long-term career goals.
- Two letters of recommendation.
- An interview with an English Education program coordinator that includes a transcript review.

Major Requirements - Overall

Type: Completion requirement

Earn at least 30 credits

Major Requirements - Sequence 1

Type: Completion requirement

English Content Intensive for Certified Teachers

Fulfill ALL of the following requirements:

Methods of Teaching English in Middle and High School

Earn at least 15 credits from the following:

- ESC 522 - Teaching English in Middle and High School
- ESC 721 - Literature for Middle and High School Students
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 725 - Teaching English Grammar
- ESC 730 - Methods of Teaching English in Middle and High School: Selected Topics
- ESC 720 - Reading and Reading Materials for Adolescents

ESC 522: *Except for those who completed ESC 422 or equivalent as undergraduates.*

AND

English Electives

Earn at least 9 credits

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement. (9-12 credits)

AND

Master's Project

Earn at least 3 credits from the following:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Candidates who are already certified in English Education 7-12.

Major Requirements - Sequence 2

Type: Completion requirement

Undergraduate Education Minor Option

Fulfill ALL of the following requirements:

Methods of Teaching English in Middle and High School

Complete ALL of the following Courses:

- ESC 522 - Teaching English in Middle and High School
- ESC 721 - Literature for Middle and High School Students
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 725 - Teaching English Grammar
- ESC 730 - Methods of
• +Teaching English in Middle and High School: Selected Topics
- ESC 772 - Evaluation and Assessment of Student Learning

ESC 522: *Except for those who completed ESC 422 or equivalent as undergraduates.*

AND

English Electives

Earn at least 3 credits

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement. (3-6 credits)

AND

Master's Project

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Student Teaching or Teaching Internship

Complete at least 1 of the following:

Teaching Internship

Complete ALL of the following Courses:

- ESC 595 - Internship in Classroom Teaching
- ESC 612 - Student Teaching Seminar in Secondary Education

OR

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates seeking initial certification in English Education 7-12 who have completed the undergraduate education minor but are not certified.

Major Requirements - Sequence 3

Type: Completion requirement

English Undergraduate Major Option

Fulfill ALL of the following requirements:

Core Education

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

AND

Methods of Teaching English in Middle and High School

Earn at least 12 credits from the following:

- ESC 522 - Teaching English in Middle and High School
- ESC 720 - Reading and Reading Materials for Adolescents
- ESC 721 - Literature for Middle and High School Students
- ESC 722 - Teaching Communication Skills in the Content Areas
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 730 - Methods of Teaching English in Middle and High School: Selected Topics
- ESC 772 - Evaluation and Assessment of Student Learning
- ESC 725 - Teaching English Grammar

AND

English Electives

Earn at least 3 credits

Consult with an adviser in the English Education program for the appropriate course to satisfy this requirement. (3 credits)

AND

Master's Project

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Student Teaching or Teaching Internship

Complete at least 1 of the following:

Teaching Internship

Complete ALL of the following Courses:

- ESC 595 - Internship in Classroom Teaching
- ESC 612 - Student Teaching Seminar in Secondary Education

OR

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates seeking initial certification in English ~~Education~~ 7-12 but who lack any coursework in education.

Major Requirements - Sequence 4

Type: Completion requirement

Dual Certification English Language Arts and Teaching Students with Disabilities

Generalist Grades 7-12 Option

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 780 - Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core

Complete ALL of the following Courses:

- ESC 522 - Teaching English in Middle and High School
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in English who lack core education requirements and seek initial certification in English ~~Language Arts Education~~ and Students with Disabilities (SWD) ~~grades 7-12~~.

Major Requirements - Sequence 5

Type: Completion requirement

**Residency Program Dual Certification English ~~Language Arts and Teaching~~
Students with Disabilities ~~Generalist Grades 7-12 Option~~**

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 780 - Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND**Pedagogical Core****Complete ALL of the following Courses:**

- ESC 522 - Teaching English in Middle and High School
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND**Student Teaching****Complete ALL of the following Courses:**

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in English who lack core education requirements and seek initial certification in English ~~Language Arts Education~~ and Students with Disabilities (SWD) ~~grades 7-12~~.

Additional Comments:

~~In addition to the requirements above, Sequence 4 and 5 candidates will also need to complete (a) an application for the Initial Students with Disabilities Generalist 7-12 certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; and (c) passing scores on the Special Education Content Specialty Test.~~

Major Requirements – Additional Certification Requirements**Type:** Completion requirement

~~In order to be recommended for initial certification in English Education 7-12, students must: (a) complete the master's degree with a cumulative index of 3.0 or better; (b) present passing scores on the following New York State examinations: Educating All Students (EAS), and English CST and (c) demonstrate successful completion of a liberal arts and sciences core.~~

~~In order to qualify for professional certification in English Education 7-12, in addition to the master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school which serves ~~grades 7-12~~, and must meet any additional New York State requirements.~~

~~Qualified English Education 7-12 candidates may also apply to one of the following Advanced Certificates and extend their certifications accordingly:~~

(1) ~~Teaching English to Speakers of Other Languages (TESOL P-12);~~
(2) ~~Middle Childhood Extension, Grades 5-6;~~
(3) ~~Bilingual Extension~~

3. To:

Initial and Professional Certifications.

This program offers six sequences and is designed for students seeking a Master's degree in English 7-12 and dual certification Students with Disabilities P-12.

Major Requirements - Admission Requirements

Type: Prerequisite

- Possess a bachelor's degree in English or its equivalent from an accredited college or university.
- Have earned a minimum cumulative index of 3.0 in the undergraduate record.
- If conditionally admitted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.
- For Sequence 1, present evidence of NYS teacher certification in English Education 7-12.
- For Sequence 2, present evidence of meeting core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.
- For Sequences 1-4, evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.
- For Sequence 5, submit passing scores on the New York State Content Specialty Tests (CSTs) in English and Students with Disabilities.
- A 500-word essay on interest in the program as it relates to long-term career goals.
- Two letters of recommendation.
- An interview with an English Education program coordinator that includes a transcript review.

Major Requirements - Overall

Type: Completion requirement

Earn at least 30 credits

Major Requirements - Sequence 1

Type: Completion requirement

Hybrid/Campus English Content Intensive for Certified Teachers

Fulfill ALL of the following requirements:

Methods of Teaching English in Middle and High School

Earn at least 15 credits from the following:

- ESC 522 - Teaching English in Middle and High School
- ESC 721 - Literature for Middle and High School Students
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 725 - Teaching English Grammar
- ESC 730 - Methods of Teaching English in Middle and High School: Selected Topics
- ESC 720 - Reading and Reading Materials for Adolescents

ESC 522: *Except for those who completed ESC 422 or equivalent as undergraduates.*

AND

English Electives

Earn at least 9 credits

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement. (9-12 credits)

AND

Master's Project

Earn at least 3 credits from the following:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Candidates who are already certified in English 7-12.

Major Requirements - Sequence 2

Type: Completion requirement

Hybrid/Campus Undergraduate Education Minor Option

Fulfill ALL of the following requirements:

Methods of Teaching English in Middle and High School

Complete ALL of the following Courses:

- ESC 522 - Teaching English in Middle and High School
- ESC 721 - Literature for Middle and High School Students
- ESC 724 - Methods of Teaching Writing in Middle and High School

- ESC 725 - Teaching English Grammar
- ESC 730 - Methods of
• +Teaching English in Middle and High School: Selected Topics
- ESC 772 - Evaluation and Assessment of Student Learning

ESC 522: *Except for those who completed ESC 422 or equivalent as undergraduates.*

AND

English Electives

Earn at least 3 credits

Consult with an adviser in the English Education program for the appropriate course(s) to satisfy this requirement. (3-6 credits)

AND

Master's Project

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Student Teaching or Teaching Internship

Complete at least 1 of the following:

Teaching Internship

Complete ALL of the following Courses:

- ESC 595 - Internship in Classroom Teaching
- ESC 612 - Student Teaching Seminar in Secondary Education

OR

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates seeking initial certification in English 7-12 who have completed the undergraduate education minor but are not certified.

Major Requirements - Sequence 3

Type: Completion requirement

Hybrid/Campus English Undergraduate Major Option

Fulfill ALL of the following requirements:

Core Education

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

AND

Methods of Teaching English in Middle and High School

Earn at least 12 credits from the following:

- ESC 522 - Teaching English in Middle and High School
- ESC 720 - Reading and Reading Materials for Adolescents
- ESC 721 - Literature for Middle and High School Students
- ESC 722 - Teaching Communication Skills in the Content Areas
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 730 - Methods of Teaching English in Middle and High School: Selected Topics
- ESC 772 - Evaluation and Assessment of Student Learning
- ESC 725 - Teaching English Grammar

AND

English Electives

Earn at least 3 credits

Consult with an adviser in the English Education program for the appropriate course to satisfy this requirement. (3 credits)

AND

Master's Project

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Student Teaching or Teaching Internship

Complete at least 1 of the following:

Teaching Internship

Complete ALL of the following Courses:

- ESC 595 - Internship in Classroom Teaching

- ESC 612 - Student Teaching Seminar in Secondary Education

OR

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates seeking initial certification in English 7-12 but who lack any coursework in education.

Major Requirements - Sequence 4

Type: Completion requirement

Hybrid/Campus Dual Certification English Students with Disabilities P-12

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core

Complete ALL of the following Courses:

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings
- ESC 522 - Teaching English in Middle and High School

- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in English who lack core education requirements and seek initial certification in English 7-12 and Students with Disabilities P-12.

Major Requirements - Sequence 5

Type: Completion requirement

Residency Program Dual Certification English and Students with Disabilities P-12
Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core

Complete ALL of the following Courses:

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings
- ESC 522 - Teaching English in Middle and High School
- ESC 724 - Methods of Teaching Writing in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in English who lack core education requirements and seek initial certification in English 7-12 and Students with Disabilities P-12.

Sequence 6: Online Option (an add-on sequence that permits MSED candidates in English 7-12 or dual certification in English 7-12 and Students with Disabilities P-12 to complete Sequences 1-5 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

4. Rationale:

- We are requesting a distance education option so candidates can complete their courses online. This will not affect the program's learning objectives since only the course delivery mode is changing.
- We have simplified the descriptions and eliminated extraneous information.
- The Students with Disabilities program has replaced EDS 780 with EDS 701.

- NYSED has changed the SWD certification to include all grades (P-12). We added the new early childhood/childhood methods courses (EDE 723 and EDE 724) to meet this new certification requirement.
- None of these changes affect learning outcomes for this department or program.

5. **Date of departmental approval:** September 11, 2025

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Mathematics Teacher Grade 7-12 Alternative Transitional B Certification, MSED

Hegis Number: 0899.50

Program Code: 25826

1. **Type of Change:** Addition of Distance Education Format; Change in Degree Requirements

2. From:

The Transitional B Alternative Certification program for middle and high school mathematics teachers leads to a Master of Science in Education degree. Registered with the State Education Department, this program leads to both initial and professional certification to teach mathematics in grades 5-9, 7-12, and Students with Disabilities provided all other requirements have been satisfied.

Certificate Requirements - Admission Requirements

Earn a minimum GPA of 3.0

- A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
- Mathematics course work of at least 18 credits that include Calculus I and II, with an overall index of 3.0 or better in all mathematics courses taken.
- For Track 1, must be eligible for the NYS Transitional B Certificate.
- For Track 2, mathematics major and eligible for the NYS Transitional B Certificate.
- For Track 3, mathematics course work includes Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; Must be eligible for the NYS Transitional B Certificate.
- For Track 4, mathematics course work includes Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics. Must be eligible for the NYS Transitional B Certificate.

Certificate Requirements - Overall

This program offers four tracks for candidates possessing a Trans B license from New York State.

- **Track 1 (33– 36 credits).** Alternative Transitional B Non-Math Majors seeking initial certification in Math 5-9.
- **Track 2 (33– 36 credits).** Alternative Transitional B Math Majors seeking initial certification in Math 7-12.
- **Track 3 (40– 43 credits).** Alternative Transitional B Non-Math majors seeking initial certification in Math 7-12.
- **Track 4 (39 credits).** Alternative Transitional B Math Majors seeking dual certification in Math 7-12 and ~~SWD 7-12 Generalist~~.

~~The graduate program for middle and high school mathematics teachers leads to a Master of Science in Education degree. Registered with the State Education Department, this program leads to both initial and professional certification to teach mathematics in grades 5-9 or 7-12, provided all other requirements have been satisfied.~~

Earn at least 33 credits

Certificate Requirements - Course Requirements

Complete at least 1 of the following:

Track 1 (33- 36 credits). Alternative Transitional B non-math majors seeking initial certification in Math 5-9

Fulfill ALL of the following requirements:

Core Education Courses

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 532 - Teaching Mathematics in Middle and High School

AND

Advanced Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School

AND

Mathematics

Complete ALL of the following Courses:

- MAT 601 - Secondary School Mathematics from an Advanced Standpoint
- MAT 602 - Introduction to Number Theory and Modern Algebra I
- MAT 655 - Exploring Mathematics Using Technology
- MAT 661 - History of Mathematics

AND

Culminating Experience

Complete ALL of the following Courses:

- ~~ESC 706 - Project Seminar I~~
- ~~ESC 707 - Project Seminar II~~

Or Comprehensive Examination:

~~A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in 3 additional credits of research related course work.~~

OR

Track 2 (33— 36 credits). Alternative Transitional B Math Majors seeking initial certification in Math 7-12

Fulfill ALL of the following requirements:

Core Education Courses

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 532 - Teaching Mathematics in Middle and High School

AND

Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics

Three graduate electives in mathematics chosen in consultation with a program adviser.

Earn at least 9 credits

AND

Culminating Experience

~~Students who elect to write a Master's thesis must concurrently enroll in the following courses.~~

Complete ALL of the following Courses:

- ~~ESC 706 - Project Seminar I~~
- ~~ESC 707 - Project Seminar II~~

~~Or Comprehensive Examination:~~

~~A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in three additional credits of research related course work.~~

OR

Track 3 (40—43 credits). Alternative Transitional B Non-Math majors seeking initial certification in Math 7-12

Candidates who are eligible for a NYS Transitional B certificate grades 7-12 and with liberal arts and sciences degree who do not hold a bachelor's degree in mathematics but who have completed 15 credits in mathematics, including Statistics, Calculus I, Calculus II, Linear Algebra, and History of Mathematics, but who lack professional education coursework.

Fulfill ALL of the following requirements:

Core Education

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 532 - Teaching Mathematics in Middle and High School
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

AND

Advanced Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education

- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics

Complete ALL of the following Courses:

- MAT 601 - Secondary School Mathematics from an Advanced Standpoint
- MAT 604 - Application of the Real and Complex Number Systems
- MAT 637 - Topics in Discrete Mathematics
- MAT 655 - Exploring Mathematics Using Technology
- MAT 615 - Modern Algebra

AND

Culminating Experience

Complete ALL of the following Courses:

- ~~ESC 706 - Project Seminar I~~
- ~~ESC 707 - Project Seminar II~~

~~Or Comprehensive Examination:~~

~~A comprehensive written examination or research project after all course work has been completed. Students who elect to conduct a research project must enroll in three additional credits of research related course work.~~

OR

Track 4 (39 credits). Alternative Transitional B Math Majors seeking dual certification in Math 7-12 and ~~SWD 7-12 Generalist~~

Candidates who hold a bachelor's degree in mathematics, and who are eligible for a Transitional B Certificate in Mathematics Education and Students with Disabilities (~~SWD~~) ~~grades~~ 7-12.

Candidates must have the following pre-requisite courses in mathematics: Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics.

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 780 - Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Earn at least 6 credits from the following:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
AND ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Additional Certification Requirements

After fulfilling the degree requirements including New York State distribution requirements in mathematics education, candidates are recommended for initial certification in Mathematics Education 5-9 or 7-12. To be eligible for certification in New York State, the candidate's TEACH account must include (a) an application for the Initial Mathematics Education (Grades 5-9 or Grades 7-12) certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; (c) passing scores on the following New York State examinations: Educating All Students EAS and Mathematics CST; and (d) the completed fingerprinting clearance. Please see adviser for more information.

In order to qualify for Professional Certification in Mathematics Education 5-9 or 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school, which serves grades 5-9 or 7- 12, and must meet any additional New York State requirements.

3. To:

Certificate Requirements - Admission Requirements

Earn a minimum GPA of 3.0

- A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
- Mathematics course work of at least 18 credits that include Calculus I and II, with an overall index of 3.0 or better in all mathematics courses taken.
- For Track 1, must be eligible for the NYS Transitional B Certificate.
- For Track 2, mathematics major and eligible for the NYS Transitional B Certificate.
- For Track 3, mathematics course work includes Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; Must be eligible for the NYS Transitional B Certificate.

- For Track 4, mathematics course work includes Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics. Must be eligible for the NYS Transitional B Certificate.

Certificate Requirements – Overall

Earn at least 36 credits

This program offers five tracks for candidates possessing a Trans B license from New York State.

- **Track 1 (36 credits).** Alternative Transitional B Non-Math Majors seeking initial certification in Math 5-9 Hybrid/Campus.
- **Track 2 (36 credits).** Alternative Transitional B Math Majors seeking initial certification in Math 7-12 Hybrid/Campus.
- **Track 3 (43 credits).** Alternative Transitional B Non-Math majors seeking initial certification in Math 7-12 Hybrid/Campus.
- **Track 4 (45 credits).** Alternative Transitional B Math Majors seeking dual certification in Math 7-12 and Students with Disabilities P-12 Hybrid/Campus.
- **Track 5 Online Option (an add-on sequence that permits Alternative Certification Trans B candidates in Math 5-9 or 7-12 or Dual Certification Math 7-12 and Students with Disabilities P-12 to complete Tracks 1-4 courses as asynchronous or video synchronous)**

Certificate Requirements - Course Requirements

Complete at least 1 of the following:

Track 1 (36 credits). Alternative Transitional B non-math majors seeking initial certification in Math 5-9 Hybrid/Campus

Fulfill ALL of the following requirements:

Core Education Courses

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 532 - Teaching Mathematics in Middle and High School

AND

Advanced Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School

AND

Mathematics

Complete ALL of the following Courses:

- MAT 601 - Secondary School Mathematics from an Advanced Standpoint
- MAT 602 - Introduction to Number Theory and Modern Algebra I
- MAT 655 - Exploring Mathematics Using Technology
- MAT 661 - History of Mathematics

AND

Culminating Experience

Complete the following Course:

- ESC 708 – Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

OR

Track 2 (36 credits). Alternative Transitional B Math Majors seeking initial certification in Math 7-12 Hybrid/Campus

Fulfill ALL of the following requirements:

Core Education Courses

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 532 - Teaching Mathematics in Middle and High School

AND

Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics

Three graduate electives in mathematics chosen in consultation with a program adviser.

Earn at least 9 credits

AND

Culminating Experience

Complete the following Course:

- ESC 708 – Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

OR

Track 3 (43 credits). Alternative Transitional B Non-Math majors seeking initial certification in Math 7-12 Hybrid/Campus

Candidates who are eligible for a NYS Transitional B certificate grades 7-12 and with liberal arts and sciences degree who do not hold a bachelor's degree in mathematics but who have completed 15 credits in mathematics, including Statistics, Calculus I, Calculus II, Linear Algebra, and History of Mathematics, but who lack professional education coursework.

Fulfill ALL of the following requirements:

Core Education

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 532 - Teaching Mathematics in Middle and High School
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

AND

Advanced Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics

Complete ALL of the following Courses:

- MAT 601 - Secondary School Mathematics from an Advanced Standpoint
- MAT 604 - Application of the Real and Complex Number Systems
- MAT 637 - Topics in Discrete Mathematics
- MAT 655 - Exploring Mathematics Using Technology
- MAT 615 - Modern Algebra

AND

Culminating Experience

Complete the following Course:

- ESC 708 – Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

OR

Track 4 (45 credits). Alternative Transitional B Math Majors seeking dual certification in Math 7-12 and Students with Disabilities P-12 Hybrid/Campus

Candidates who hold a bachelor's degree in mathematics, and who are eligible for a Transitional B Certificate in Mathematics Education and Students with Disabilities P-12.

Candidates must have the following pre-requisite courses in mathematics: Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics.

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set

- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core

Complete ALL of the following Courses:

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings
- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Earn at least 6 credits from the following:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
AND ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Track 5 Online Option (an add-on sequence that permits Alternative Certification Trans B candidates in Math 5-9 or 7-12 or Dual Certification Math 7-12 and Students with Disabilities P-12 to complete Tracks 1-4 courses as asynchronous or video

synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

Additional Certification Requirements

After fulfilling the degree requirements including New York State distribution requirements in mathematics education, candidates are recommended for initial certification in Mathematics Education 5-9 or 7-12. To be eligible for certification in New York State, the candidate's TEACH account must include (a) an application for the Initial Mathematics Education (Grades 5-9 or Grades 7-12) certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; (c) passing scores on the following New York State examinations: Educating All Students EAS and Mathematics CST; and (d) the completed fingerprinting clearance. Please see adviser for more information.

In order to qualify for Professional Certification in Mathematics Education 5-9 or 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school, which serves grades 5-9 or 7- 12, and must meet any additional New York State requirements.

4. Rationale:

- We are requesting a distance education option so candidates can complete their courses online. This will not affect the program's learning objectives since only the course delivery mode is changing.
- We have simplified the descriptions and eliminated extraneous information.
- The Students with Disabilities program has replaced EDS 780 with EDS 701.
- NYSED has changed the SWD certification to include all grades (P-12). We added the new early childhood/childhood methods courses (EDE 723 and EDE 724) to meet this new certification requirement.
- None of these changes affect learning outcomes for this department or program.

5. Date of departmental approval: September 11, 2025

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Mathematics 7-12, MSED

Hegis Number: 1701.01

Program Code: 25827

1. Type of Change: Addition of Distance Education Format; Admission Requirements; Change in Degree Requirements

2. From:

The graduate program for middle and high school mathematics teachers leads to a Master of Science in Education degree. Registered with the State Education Department, this program leads to both initial and professional certification to teach mathematics in grades 5-9 or 7-12, provided all other requirements have been satisfied. Applicants will apply for one of 6 sequences based on their qualifications:

Sequence 1 (40–42 credits): Non-math majors: For liberal arts and sciences graduates who have completed 18 credits in mathematics, including Calculus I and Calculus II, who lack professional education coursework, and who seek mathematics certification, grades 5-9.

Sequence 2 (47–49 credits): Non-math majors: For liberal arts and sciences graduates who do not hold a bachelor's degree in mathematics but who have completed 18 credits in mathematics, including Statistics, Calculus I, Calculus II, Linear Algebra, and History of Mathematics, and who lack professional education coursework and seek mathematics certification, grades 7-12.

Sequence 3 (40-42 credits): Mathematics majors: For candidates who hold a bachelor's degree in mathematics, but lack professional education coursework, and who seek mathematics certification, grades 7-12.

Sequence 4 (31-33 credits): Mathematics majors with an education minor that meets NYS core requirements in educational psychology, educational foundations, literacy, technology, special education, and supervised field experiences; candidates seek mathematics certification, grades 7-12.

Sequence 5 (42 credits): Mathematics majors: For candidates who hold a bachelor's degree in mathematics and seek certification in Mathematics Education and Students with Disabilities (SWD) ~~grades 7-12~~.

Sequence 6 (45 credits): Mathematics majors: For Residency Program candidates who hold a bachelor's degree in mathematics and seek initial certification in Mathematics Education and Students with Disabilities (SWD) ~~grades 7-12~~.

Requirements

[Collapse All](#)

Master's Requirements - Admission Requirements**Type:** Completion requirement

1. A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
2. For Sequence 1 (non-math majors): Mathematics course work of at least 18 credits that include Calculus I and II, with an overall index of 3.0 or better in all mathematics courses taken; candidates seek mathematics certification, grades 5-9.
3. For Sequence 2 (non-math majors): Mathematics course work to include Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; with an overall index of 3.0 or better in all mathematics courses taken; candidates seek mathematics certification, grades 7-12.
4. For Sequence 3: mathematics majors who lack education coursework and who seek mathematics certification, grades 7-12.
5. For Sequence 4: mathematics major with an education minor that meets NYS core requirements in educational psychology, educational foundations, literacy, technology, special education, and supervised field experiences. Candidates seek mathematics certification, grades 7-12.
6. For Sequence 5: mathematics major and mathematics coursework to include Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics. Candidates seek certification in both Mathematics and Students With Disabilities (SWD).
7. For Sequence 6 (Residency Program candidates), mathematics major and submission of passing scores on the New York State Content Specialty Tests (CSTs) in both Mathematics and in Students with Disabilities (SWD).
8. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
9. Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.
10. A 500-word essay on career goals.
11. A personal interview.

Masters Requirements - Overall**Earn at least 30 credits**

Masters Requirements - Sequence 1

Fulfill ALL of the following requirements:**Core Education****Earn at least 16 credits from the following:**

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 532 - Teaching Mathematics in Middle and High School

- ESC 595 - Internship in Classroom Teaching
AND ESC 612 - Student Teaching Seminar in Secondary Education
- ESC 596 - Student Teaching in the Middle and High School Grades
AND ESC 612 - Student Teaching Seminar in Secondary Education

AND

Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School

AND

Mathematics

Complete ALL of the following Courses:

- MAT 601 - Secondary School Mathematics from an Advanced Standpoint
- MAT 602 - Introduction to Number Theory and Modern Algebra I
- MAT 655 - Exploring Mathematics Using Technology
- MAT 661 - History of Mathematics

AND

Culminating Experience

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Masters Requirements - Sequence 2

Fulfill ALL of the following requirements:

Core Education

Earn at least 16 credits from the following:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 532 - Teaching Mathematics in Middle and High School

- ESC 595 - Internship in Classroom Teaching
AND ESC 612 - Student Teaching Seminar in Secondary Education
- ESC 596 - Student Teaching in the Middle and High School Grades
AND ESC 612 - Student Teaching Seminar in Secondary Education

AND

Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics

Complete ALL of the following Courses:

- MAT 601 - Secondary School Mathematics from an Advanced Standpoint
- MAT 604 - Application of the Real and Complex Number Systems
- MAT 637 - Topics in Discrete Mathematics
- MAT 655 - Exploring Mathematics Using Technology
- MAT 615 - Modern Algebra

AND

Culminating Experience

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Masters Requirements - Sequence 3

Fulfill ALL of the following requirements:

Core Education

Earn at least 16 credits from the following:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

- ESC 532 - Teaching Mathematics in Middle and High School
- ESC 595 - Internship in Classroom Teaching
AND ESC 612 - Student Teaching Seminar in Secondary Education
- ESC 596 - Student Teaching in the Middle and High School Grades
AND ESC 612 - Student Teaching Seminar in Secondary Education

AND

Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics

Earn at least 9 credits

- Three graduate electives in mathematics chosen in consultation with a program adviser.

AND

Culminating Experience

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Masters Requirements - Sequence 4

Fulfill ALL of the following requirements:

Core Education

Complete course(s) and earn 19 - 21 credit(s) from the following:

- ESC 532 - Teaching Mathematics in Middle and High School
- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

- ESC 595 - Internship in Classroom Teaching
OR ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

AND

Mathematics

Earn at least 9 credits

- Three or four graduate electives in mathematics chosen in consultation with a program adviser.

AND

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Masters Requirements - Sequence 5

Dual Certification in Mathematics Education and Teaching Students with Disabilities Generalist Grades 7-12 Option

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 780—Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with a bachelor's degree in mathematics with no relevant secondary education coursework and seek initial certification in Mathematics Education and Students with Disabilities (SWD) grades 7- 12.

- Candidates must have the following pre-requisite courses in mathematics: Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics.

Masters Requirements - Sequence 6

Dual Certification in Mathematics Education and Teaching Students with Disabilities Generalist Grades 7-12 Option

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 780—Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with a bachelor's degree in mathematics with no relevant secondary education coursework and seek initial certification in Mathematics Education and Students with Disabilities (SWD) grades 7- 12.

- Candidates must have the following pre-requisite courses in mathematics: Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics.

Masters Requirements – Additional Certification Requirements

~~After fulfilling the Sequences 1 through 6 degree requirements including New York State distribution requirements in mathematics education, candidates are recommended for initial certification in Mathematics Education 5-9 or 7-12. To be eligible for certification in New York State, the candidate's TEACH account must include (a) an application for the Initial Mathematics Education (Grades 5-9 or Grades 7-12) certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; (c) passing scores on the following New York State examinations: Educating All Students (EAS), and Mathematics CST; and (d) the completed fingerprinting clearance. Please see adviser for more information.~~

~~In addition to the requirements above, Sequence 6 candidates will also need to complete (a) an application for the Initial Students with Disabilities Generalist 7-12 certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; and (c) passing scores on the Special Education Content Specialty Test.~~

~~In order to qualify for Professional Certification in Mathematics Education 5-9 or 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school, which serves grades 5-9 or 7-12, and must meet any additional New York State requirements.~~

~~Masters Requirements - Extension to the New York State Initial Certificate to Teach Mathematics in Grades 5-9~~

~~Masters Requirements - Extension to the New York State Initial Certificate to Teach Mathematics in Grades 5-9~~

Extension Program in Mathematics Education

Fulfill ALL of the following requirements:

Admission Requirements

- Possess New York State initial certification to teach mathematics in grades 5-9.
- Have at least two semesters of successful experience teaching mathematics in grades 7, 8, or 9; or one semester of supervised student teaching in mathematics in grades 7, 8, or 9 (with a grade of B or better).
- Mathematics coursework in Calculus I, Calculus II, Linear Algebra, Statistics, and History of Mathematics with a GPA of 3.0 or better.
- Submit two (2) letters of recommendation, at least one of which is from a college or university instructor of mathematics.
- Submit a 500-word essay on career goals.
- Participate in an interview.
- Meet additional departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

AND

Continuation Requirements

- Students must maintain a 3.0 grade point average throughout the course of study.

AND

Certificate Requirements

The Extension Program in Mathematics Education consists of 17 credits, as outlined below. A minimum of a B average must be maintained throughout the course of the Program. All students are to consult with an adviser in Mathematics Education before starting the Program.

AND

Curriculum and Instruction

Complete ALL of the following Courses:

- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics Content

Complete ALL of the following Courses:

- MAT 604 - Application of the Real and Complex Number Systems
- MAT 615 - Modern Algebra
- MAT 637 - Topics in Discrete Mathematics

This program is designed for candidates who hold New York State initial certification to teach Mathematics in grades 5-9 (Middle Childhood Education) and wish to extend their certification to include grades 7-12 (Adolescent Education).

3. To:

The graduate program for middle and high school mathematics teachers leads to a Master of Science in Education degree. Registered with the State Education Department, this program leads to both initial and professional certification to teach mathematics in grades 5-9 or 7-12, provided all other requirements have been satisfied. Applicants will apply for one of 7 sequences based on their qualifications:

Sequence 1 (40-42 credits): Non-math majors: For liberal arts and sciences graduates who have completed 18 credits in mathematics, including Calculus I and Calculus II, who lack professional education coursework, and who seek mathematics certification, grades 5-9 Hybrid/Campus.

Sequence 2 (47-49 credits): Non-math majors: For liberal arts and sciences graduates who do not hold a bachelor's degree in mathematics but who have completed 18 credits in mathematics, including Statistics, Calculus I, Calculus II, Linear Algebra, and History of Mathematics, and who lack professional education coursework and seek mathematics certification, grades 7-12 Hybrid/Campus.

Sequence 3 (40-42 credits): Mathematics majors: For candidates who hold a bachelor's degree in mathematics, but lack professional education coursework, and who seek mathematics certification, grades 7-12 Hybrid/Campus.

Sequence 4 (31-33 credits): Mathematics majors with an education minor that meets NYS core requirements in educational psychology, educational foundations, literacy, technology, special education, and supervised field experiences; candidates seek mathematics certification, grades 7-12 Hybrid/Campus.

Sequence 5 (48 credits): Mathematics majors: For candidates who hold a bachelor's degree in mathematics and seek certification in Mathematics Education and Students with Disabilities P-12 Hybrid/Campus.

Sequence 6 (51 credits): Mathematics majors: For Residency Program candidates who hold a bachelor's degree in mathematics and seek initial certification in Mathematics Education and Students with Disabilities P-12 Hybrid/Campus.

Sequence 7: Online Option (an add-on sequence that permits MSED candidates in Math 5-9 or 7-12 or dual certification in Math 7-12 and Students with Disabilities P-12 to complete Sequences 1-6 courses as asynchronous or video synchronous)

Requirements

[Collapse All](#)

Master's Requirements - Admission Requirements

1. A bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
2. For Sequence 1 (non-math majors): Mathematics course work of at least 18 credits that include Calculus I and II, with an overall index of 3.0 or better in all mathematics courses taken; candidates seek mathematics certification, grades 5-9.
3. For Sequence 2 (non-math majors): Mathematics course work to include Statistics; Calculus I; Calculus II; Linear Algebra; and History of Mathematics; with an overall index of 3.0 or better in all mathematics courses taken; candidates seek mathematics certification, grades 7-12.
4. For Sequence 3: mathematics majors who lack education coursework and who seek mathematics certification, grades 7-12.
5. For Sequence 4: mathematics major with an education minor that meets NYS core requirements in educational psychology, educational foundations, literacy, technology, special education, and supervised field experiences. Candidates seek mathematics certification, grades 7-12.
6. For Sequence 5: mathematics major and mathematics coursework to include Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics. Candidates seek certification in both Mathematics and Students With Disabilities (SWD).
7. For Sequence 6 (Residency Program candidates), mathematics major and submission of passing scores on the New York State Content Specialty Tests (CSTs) in both Mathematics and in Students with Disabilities (SWD).
8. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
9. Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.
10. A 500-word essay on career goals.
11. A personal interview.

Masters Requirements - Overall

Earn at least 31 credits

Masters Requirements - Sequence 1 Hybrid/Campus

Type: Completion requirement

Fulfill ALL of the following requirements:

Core Education

Earn at least 16 credits from the following:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

- ESC 532 - Teaching Mathematics in Middle and High School
- ESC 595 - Internship in Classroom Teaching
AND ESC 612 - Student Teaching Seminar in Secondary Education
- ESC 596 - Student Teaching in the Middle and High School Grades
AND ESC 612 - Student Teaching Seminar in Secondary Education

AND

Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School

AND

Mathematics

Complete ALL of the following Courses:

- MAT 601 - Secondary School Mathematics from an Advanced Standpoint
- MAT 602 - Introduction to Number Theory and Modern Algebra I
- MAT 655 - Exploring Mathematics Using Technology
- MAT 661 - History of Mathematics

AND

Culminating Experience

Complete the following Course:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Masters Requirements - Sequence 2 Hybrid/Campus

Fulfill ALL of the following requirements:

Core Education

Earn at least 16 credits from the following:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 532 - Teaching Mathematics in Middle and High School

- ESC 595 - Internship in Classroom Teaching
AND ESC 612 - Student Teaching Seminar in Secondary Education
- ESC 596 - Student Teaching in the Middle and High School Grades
AND ESC 612 - Student Teaching Seminar in Secondary Education

AND

Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics

Complete ALL of the following Courses:

- MAT 601 - Secondary School Mathematics from an Advanced Standpoint
- MAT 604 - Application of the Real and Complex Number Systems
- MAT 637 - Topics in Discrete Mathematics
- MAT 655 - Exploring Mathematics Using Technology
- MAT 615 - Modern Algebra

AND

Culminating Experience

Complete the following Course:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Masters Requirements - Sequence 3 Hybrid/Campus

Fulfill ALL of the following requirements:

Core Education

Earn at least 16 credits from the following:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

- ESC 532 - Teaching Mathematics in Middle and High School
- ESC 595 - Internship in Classroom Teaching
AND ESC 612 - Student Teaching Seminar in Secondary Education
- ESC 596 - Student Teaching in the Middle and High School Grades
AND ESC 612 - Student Teaching Seminar in Secondary Education

AND

Pedagogical Content in Mathematics Education

Complete ALL of the following Courses:

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics

Earn at least 9 credits

- Three graduate electives in mathematics chosen in consultation with a program adviser.

AND

Culminating Experience

Complete the following Course:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Masters Requirements - Sequence 4 Hybrid/Campus

Fulfill ALL of the following requirements:

Core Education

Complete course(s) and earn 19 - 21 credit(s) from the following:

- ESC 532 - Teaching Mathematics in Middle and High School
- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 742 - Research in Mathematics Education
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

- ESC 595 - Internship in Classroom Teaching
OR ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

AND

Mathematics

Earn at least 9 credits

- Three or four graduate electives in mathematics chosen in consultation with a program adviser.

AND

Complete the following Course:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Masters Requirements - Sequence 5 Hybrid/Campus

Dual Certification in Mathematics 7-12 and Teaching Students with Disabilities P-12

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core

Complete ALL of the following Courses:

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings

- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with a bachelor's degree in mathematics with no relevant secondary education coursework and seek initial certification in Mathematics Education and Students with Disabilities (SWD) grades 7- 12.

- Candidates must have the following pre-requisite courses in mathematics: Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics.

Masters Requirements - Sequence 6 Hybrid/Campus

Dual Certification in Mathematics 7-12 and Students with Disabilities P-12

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change

- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND**Pedagogical Core****Complete ALL of the following Courses:**

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings
- ESC 740 - Teaching Mathematics in Grades 7-10
- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND**Student Teaching****Complete ALL of the following Courses:**

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with a bachelor's degree in mathematics with no relevant secondary education coursework and seek initial certification in Mathematics Education and Students with Disabilities P- 12.

- Candidates must have the following pre-requisite courses in mathematics: Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics.

Masters Requirements Sequence 7: Online Option (an add-on sequence that permits MSEd candidates in Math 5-9 or 7-12 or dual certification in Math 7-12 and Students with Disabilities P-12 to complete Sequences 1-6 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit

and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

Extension Program in Mathematics Education

Fulfill ALL of the following requirements:

Admission Requirements

- Possess New York State initial certification to teach mathematics in grades 5-9.
- Have at least two semesters of successful experience teaching mathematics in grades 7, 8, or 9; or one semester of supervised student teaching in mathematics in grades 7, 8, or 9 (with a grade of B or better).
- Mathematics coursework in Calculus I, Calculus II, Linear Algebra, Statistics, and History of Mathematics with a GPA of 3.0 or better.
- Submit two (2) letters of recommendation, at least one of which is from a college or university instructor of mathematics.
- Submit a 500-word essay on career goals.
- Participate in an interview.
- Meet additional departmental, divisional, and New York State requirements, if any.
- If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.

AND

Continuation Requirements

- Students must maintain a 3.0 grade point average throughout the course of study.

AND

Certificate Requirements

The Extension Program in Mathematics Education consists of 17 credits, as outlined below. A minimum of a B average must be maintained throughout the course of the Program. All students are to consult with an adviser in Mathematics Education before starting the Program.

AND

Curriculum and Instruction

Complete ALL of the following Courses:

- ESC 748 - Teaching Problem Solving in Mathematics in Middle and High School
- ESC 749 - Teaching Mathematics in Grades 11 and 12

AND

Mathematics Content

Complete ALL of the following Courses:

- MAT 604 - Application of the Real and Complex Number Systems
- MAT 615 - Modern Algebra
- MAT 637 - Topics in Discrete Mathematics

This program is designed for candidates who hold New York State initial certification to teach Mathematics in grades 5-9 (Middle Childhood Education) and wish to extend their certification to include grades 7-12 (Adolescent Education).

4. Rationale:

- We are requesting a distance education option so candidates can complete their courses online. This will not affect the program's learning objectives since only the course delivery mode is changing.
- We have simplified the descriptions and eliminated extraneous information.
- The Students with Disabilities program has replaced EDS 780 with EDS 701.
- NYSED has changed the SWD certification to include all grades (P-12). We added the new early childhood/childhood methods courses (EDE 723 and EDE 724) to meet this new certification requirement.
- None of these changes affect learning outcomes for this department or program.

5. Date of departmental approval: September 11, 2025

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Science Teacher Grade 7-12 Alternative Trans B Certification

Hegis Number: 0899.50

Program Code: 25790

1. **Type of Change:** Addition of Distance Education Format; Degree Requirements

2. **From:**

Major Requirements - Admission Requirements

1. Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
2. Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
3. Submission of scores on the Content Specialty Test (CST).
4. Satisfy appropriate voice, speech, and health standards.
5. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
6. Personal interview.

Degree Requirements - Overall

Earn at least 33 credits

This program offers two tracks for candidates possessing a Trans B license from New York State.

- Track 1 (33-38 crs.): ~~Alternative Transitional B candidates seeking initial certification in Science Education 7-12.~~
- Track 2 (42-44 crs.): ~~Alternative Transitional B candidates seeking dual certification in Science Education 7-12 and SWD 7-12 Generalist.~~

Science Education Degree Requirements

Complete at least 1 of the following:

Track 1: Trans B Alternative Certification in Science Education 7-12 Sequence (33-38 credits).

Fulfill ALL of the following requirements:

Core Education Sequence (12-15 credits)

Fulfill ALL of the following requirements:

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
OR ESC 713 - Restorative Practices & Restorative Justice
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 789 - Independent Study in Curriculum Development
- ESC 595 - Internship in Classroom Teaching
OR ESC 596 - Student Teaching in the Middle and High School Grades

AND

Curriculum and Instruction (12 credits)

Complete ALL of the following Courses:

- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 536 - Teaching and Learning with Technology in Education
- ESC 767 - The Museum as a Resource for Teaching Science in Secondary Settings.
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics

ESC 536: Or equivalent.

ESC 767: Or equivalent.

AND

Research and Culmination Projects (3 credits)

Complete ALL of the following Courses:

- ESC 705 - Methods of Educational Research

AND

Graduate Science Content (6-8 credits)

Earn at least 6 credits from the following:

- BIO 611 - Problems in Microbiology
- BIO 612 - Plant Growth and Development
- BIO 618 - Problems in Ecology
- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry
- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- PHY 601 - Advanced General Physics
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy
- BIO 618 - Problems in Ecology
- CHE 542 - Advanced Inorganic Chemistry
- GEO 501 - Earth Processes
- PHY 601 - Advanced General Physics

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

For candidates with at least 36 credits in biology, chemistry, geology, or physics, who lack core education requirements and seek alternative Trans B, Initial and Professional certification in Science ~~Education~~ 7-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

OR

Track 2: Trans B Alternative Dual Certification in Science ~~Education~~ 7-12 and Students with Disabilities, Generalist, Grades 7-12 (42-44 credits)

Fulfill ALL of the following requirements:

Introductory Core (6 credits)

Complete ALL of the following Courses:

- EDS 780 - Adolescent Development
- EDS 743 - Behavioral Assessment, Management, and Change

AND

Foundations Core (12 credits)

Complete ALL of the following Courses:

- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems

- EDS 712 - The Adolescent with Disabilities
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core (12 credits)

Complete ALL of the following Courses:

- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics

AND

Student Teaching (6 credits)

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

AND

Graduate Science Content (6 credits)

Earn at least 6 credits from the following:

- BIO 501 - Topics in Genetics
- BIO 502 - Medicinal Plants

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry
- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems
- PHY 601 - Advanced General Physics
- PHY 605 - Physics for Teachers
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy
- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

Candidates with at least 36 credits in biology, chemistry, geology, or physics, who lack core education requirements and seek alternative Trans B, Initial and Professional certification in Science Education 7-12 and Students with Disabilities (SWD) ~~Generalist Grades 7-12~~. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

Additional Comments:

Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program.

3. To:

Major Requirements - Admission Requirements

7. Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
8. Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
9. Submission of scores on the Content Specialty Test (CST).
10. Satisfy appropriate voice, speech, and health standards.
11. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
12. Personal interview.

Degree Requirements - Overall

Earn at least 33 credits

This program offers three tracks for candidates possessing a Trans B license from New York State.

- Track 1 (33-38 credits): Science 7-12 Hybrid/Campus.
- Track 2 (48-50 credits): Science 7-12 and Students with Disabilities P-12 Hybrid/Campus.
- Track 3 Online Option (an add-on track that permits MSED candidates in Science 7-12 or dual certification in Science 7-12 and Students with Disabilities P-12 to complete Tracks 1-2 courses as asynchronous or video synchronous).

Science Education Degree Requirements

Complete at least 1 of the following:

Track 1: Hybrid/Campus Trans B Alternative Certification in Science 7-12 Sequence (33-38 credits).

Fulfill ALL of the following requirements:

Core Education Sequence (12-15 credits)

Fulfill ALL of the following requirements:

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
OR ESC 713 - Restorative Practices & Restorative Justice
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 789 - Independent Study in Curriculum Development
- ESC 595 - Internship in Classroom Teaching
OR ESC 596 - Student Teaching in the Middle and High School Grades

AND

Curriculum and Instruction (12 credits)

Complete ALL of the following Courses:

- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 536 - Teaching and Learning with Technology in Education
- ESC 767 - The Museum as a Resource for Teaching Science in Secondary Settings.
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics

ESC 536: Or equivalent.

ESC 767: Or equivalent.

AND

Research and Culmination Projects (3 credits)

Complete ALL of the following Courses:

- ESC 705 - Methods of Educational Research

AND

Graduate Science Content (6-8 credits)

Earn at least 6 credits from the following:

- BIO 611 - Problems in Microbiology
- BIO 612 - Plant Growth and Development
- BIO 618 - Problems in Ecology
- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry
- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- PHY 601 - Advanced General Physics
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy
- BIO 618 - Problems in Ecology
- CHE 542 - Advanced Inorganic Chemistry
- GEO 501 - Earth Processes
- PHY 601 - Advanced General Physics
- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

For candidates with at least 36 credits in biology, chemistry, geology, or physics, who lack core education requirements and seek alternative Trans B, Initial and Professional certification in Science 7-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

OR

Track 2: Hybrid/Campus Trans B Alternative Dual Certification in Science 7-12 and Students with Disabilities P-12 (48-50 credits)

Fulfill ALL of the following requirements:

Introductory Core (6 credits)

Complete ALL of the following Courses:

- EDS 701 – Understanding the Individual with Disabilities
- EDS 743 - Behavioral Assessment, Management, and Change

AND

Foundations Core (12 credits)

Complete ALL of the following Courses:

- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 712 - The Adolescent with Disabilities
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Pedagogical Core (18 credits)

Complete ALL of the following Courses:

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics

AND

Student Teaching (6 credits)

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

AND

Graduate Science Content (6 credits)

Earn at least 6 credits from the following:

- BIO 501 - Topics in Genetics
- BIO 502 - Medicinal Plants
- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry

- CHE 548 - Special Topics in Modern Organic Chemistry
- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems
- PHY 601 - Advanced General Physics
- PHY 605 - Physics for Teachers
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy
- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to:

Candidates with at least 36 credits in biology, chemistry, geology, or physics, who lack core education requirements and seek alternative Trans B, Initial and Professional certification in Science 7-12 and Students with Disabilities P-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

Track 3 Online Option (an add-on track that permits MSED candidates in Science 7-12 or dual certification in Science 7-12 and Students with Disabilities P-12 to complete Tracks 1-2 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

Additional Comments:

Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program.

4. Rationale:

- We are requesting a distance education option so candidates can complete their courses online. This will not affect the program's learning objectives since only the course delivery mode is changing.
- We have simplified the descriptions and eliminated extraneous information.
- The Students with Disabilities program has replaced EDS 780 with EDS 701.
- NYSED has changed the SWD certification to include all grades (P-12). We added the new early childhood/childhood methods courses (EDE 723 and EDE 724) to meet this new certification requirement.
- None of these changes affect learning outcomes for this department or program.

5. Date of departmental approval: September 11, 2025

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Science Education

Hegis Number: 0834.00

Program Code: 25791

1. Type of Change: Addition of Distance Education Format; Degree Requirements

2. From:

This program offers ~~five~~ sequences and is designed for candidates seeking a Master's degree in Science Education and dual certification options for Teaching Students with Disabilities (SWD) ~~7-12 Generalist~~.

Masters Requirements - Admission Requirements

1. Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
2. Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
3. For Sequence 1 admission: An undergraduate science major or the equivalent and initial certification.
4. For Sequence 2 and the dual certification and Trans B sequences admission: At least 36 credits in biology, chemistry, geology, or physics. Matriculants may be asked to complete undergraduate and/or graduate prerequisite coursework in addition to degree requirements, based on the evaluation of their credentials by an adviser in the Science Education Program.
5. For Sequence 3 admission: An undergraduate science major and must have completed at least 12 credits of the Middle and High School education minor.
6. For Sequence 5, submit passing scores on the New York State Content Specialty Tests (CSTs) in science content and Students with Disabilities.
7. Satisfy appropriate voice, speech, and health standards.
8. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
9. Personal interview.

Masters Requirements - Master of Science in Education

Earn at least 34 credits

- **Sequence 1 (32-36 credits):** is for candidates with an undergraduate science major or the equivalent and who have, or are eligible for, Initial Certification.

- **Sequence 2 (42-48 credits):** is for candidates with an undergraduate science major but who lack professional education coursework and who seek initial certification.
- **Sequence 3 (31-35 credits):** is for candidates with an undergraduate science major who previously completed an education minor or equivalent courses and are seeking initial certification.
- **Sequence 4 (43-45 credits):** is for candidates with an undergraduate science major with no previous secondary education coursework and an interest in dual Science Education 7-12 and SWD 7-12 Generalist certification.
- **Sequence 5 (46-48 credits):** is for Residency Program candidates with an undergraduate science major with no previous secondary education coursework and an interest in dual Science Education 7-12 and SWD 7-12 Generalist certification.

Advisement

- Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program. Students must complete one of the three sequences outlined below.

Masters Requirements - Sequence 1

Fulfill ALL of the following requirements:**Core Education (3-6 credits)****Earn at least 3 credits from the following:**

- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 519 - Teaching Science in Middle and High School
- ESC 519: Candidates may also be required to take based on the Program Coordinator's assessment of prior experience and qualification.

AND

Curriculum and Instruction (11-12 credits)**Earn at least 11 credits from the following:**

- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 713 - Restorative Practices & Restorative Justice
OR ESC 595 - Internship in Classroom Teaching
- ESC 767 - The Museum as a Resource for Teaching Science in Secondary Settings.
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics
- ESC 767: Or equivalent.

AND

Research and Culmination Projects (6 credits)**Complete ALL of the following Courses:**

- ESC 705 - Methods of Educational Research
- ESC 706 - Project Seminar I
- ESC 707 - Project Seminar II
- ESC 705 - Methods of Educational Research
AND ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Graduate Science Content (12 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 501 - Topics in Genetics
- BIO 502 - Medicinal Plants

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- PHY 605 - Physics for Teachers

- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR**Computer Science****Complete ANY of the following Courses:**

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For candidates with an undergraduate science major or the equivalent and who have, or are eligible for, Initial Certification.

Masters Requirements - Sequence 2**Fulfill ALL of the following requirements:****Core Education (18 credits)****Complete ALL of the following Courses:**

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
OR ESC 713 - Restorative Practices & Restorative Justice
- ESC 519 - Teaching Science in Middle and High School
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

AND**Curriculum and Instruction (12 credits)****Complete ALL of the following Courses:**

- ESC 506 - Special Needs Education in TESOL and Secondary Settings

- ESC 536 - Teaching and Learning with Technology in Education
OR ESC 537 - Principles of Computer Science Education I
- ESC 767 - The Museum as a Resource for Teaching Science in Secondary Settings.
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics

AND

Research and Culmination Projects (6 credits)

Complete ~~ALL~~ of the following Courses:

- ESC 705 - Methods of Educational Research
- ESC 706 - Project Seminar I
- ESC 707 - Project Seminar II
- ESC 705 - Methods of Educational Research
AND ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Graduate Science Content (6-12 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 501 - Topics in Genetics
- BIO 502 - Medicinal Plants

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History

- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems

OR**Physics****Complete ANY of the following Courses:**

- PHY 601 - Advanced General Physics
- PHY 605 - Physics for Teachers
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR**Computer Science****Complete ANY of the following Courses:**

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For Candidates with at least 36 credits in biology, chemistry, geology, or physics with no previous secondary education coursework and are seeking initial certification in Science Education grades 7-12.

Masters Requirements - Sequence 3**Fulfill ALL of the following requirements:****Core Education (10-12 credits)****Earn at least 10 credits from the following:**

- ESC 519 - Teaching Science in Middle and High School
- ESC 789 - Independent Study in Curriculum Development
- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

AND

Curriculum and Instruction (9 credits)

Complete ALL of the following Courses:

- ESC 536 - Teaching and Learning with Technology in Education
- ESC 767 - The Museum as a Resource for Teaching Science in Secondary Settings.
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics
- **ESC 536:** Or equivalent.
- **ESC 767:** Or equivalent.

AND

Research and Culmination Projects (6 credits)

Complete ALL of the following Courses:

- ESC 705 - Methods of Educational Research
- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Graduate Science Content (6-8 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 611 - Problems in Microbiology
- BIO 612 - Plant Growth and Development
- BIO 618 - Problems in Ecology

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes

- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR

General Science

Complete ANY of the following Courses:

- BIO 618 - Problems in Ecology
- CHE 542 - Advanced Inorganic Chemistry
- GEO 501 - Earth Processes
- PHY 601 - Advanced General Physics

OR

Computer Science

Complete ANY of the following Courses:

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For candidates with an undergraduate science major who previously completed an education minor or equivalent courses and are seeking initial certification.

Masters Requirements - Sequence 4

Dual Certification Science Education and Teaching Students with Disabilities

Generalist Grades 7-12

Fulfill ALL of the following requirements:

Foundations Core (21 credits)

Complete ALL of the following Courses:

- EDS 780—Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Curriculum and Instruction (12 credits)

Complete ALL of the following Courses:

- ESC 519 - Teaching Science in Middle and High School
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching (6 credits)

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

AND

Graduate Science Content (6-8 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 501 - Topics in Genetics

- BIO 502 - Medicinal Plants

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR

Computer Science

Complete ANY of the following Courses:

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser

in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above. For Candidates with at least 36 credits in biology, chemistry, geology, or physics with no previous secondary education coursework and an interest in dual Science Education 7-12 and ~~SWD 7-12 Generalist certification~~.

Masters Requirements - Sequence 5

**Residency Program in Dual Certification Science Education and Teaching
Students with Disabilities Generalist Grades 7-12**

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 780—Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Curriculum and Instruction

Complete ALL of the following Courses:

- ESC 519 - Teaching Science in Middle and High School
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

AND

Graduate Science Content (6-8 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 501 - Topics in Genetics
- BIO 502 - Medicinal Plants

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR

Computer Science

Complete ANY of the following Courses:

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For Candidates with at least 36 credits in biology, chemistry, geology, or physics with no previous secondary education coursework and an interest in dual Science Education 7-12 and ~~SWD 7-12 Generalist certification~~.

3. To:

This program offers six sequences and is designed for candidates seeking a Master's degree in Science Education and dual certification options for Teaching Students with Disabilities P-12.

Masters Requirements - Admission Requirements

1. Possess a bachelor's degree (or its equivalent) from an accredited college or university with an overall index of 3.0 or better.
2. Demonstrate the ability to successfully pursue graduate study. (Above-average achievement in academic work and in the teaching specialization is required).
3. For Sequence 1 admission: An undergraduate science major or the equivalent and initial certification.
4. For Sequence 2 and the dual certification and Trans B sequences admission: At least 36 credits in biology, chemistry, geology, or physics. Matriculants may be asked to complete undergraduate and/or graduate prerequisite coursework in addition to degree requirements, based on the evaluation of their credentials by an adviser in the Science Education Program.
5. For Sequence 3 admission: An undergraduate science major and must have completed at least 12 credits of the Middle and High School education minor.
6. For Sequence 5, submit passing scores on the New York State Content Specialty Tests (CSTs) in science content and Students with Disabilities.
7. Satisfy appropriate voice, speech, and health standards.
8. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
9. Personal interview.

Masters Requirements - Master of Science in Education

Earn at least 30 credits

- **Sequence 1 (30-36 credits):** is for candidates with an undergraduate science major or the equivalent and who have, or are eligible for, Initial Certification Hybrid/Campus.
- **Sequence 2 (42-44 credits):** is for candidates with an undergraduate science major but who lack professional education coursework and who seek initial certification Hybrid/Campus.
- **Sequence 3 (31-35 credits):** is for candidates with an undergraduate science major who previously completed an education minor or equivalent courses and are seeking initial certification Hybrid/Campus.
- **Sequence 4 (45-47 credits):** is for candidates with an undergraduate science major with no previous secondary education coursework and an interest in dual Science 7-12 and Students with Disabilities P-12 Hybrid/Campus.
- **Sequence 5 (48-50 credits):** is for Residency Program candidates with an undergraduate science major with no previous secondary education coursework and an interest in dual Science 7-12 and Students with Disabilities P-12 Hybrid/Campus.
- **Sequence 6 Online Option (an add-on sequence that permits MSED candidates in Science 7-12 or dual certification in Science 7-12 and Students with Disabilities P-12 to complete Sequences 1-5 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.**

Advisement

- Students must consult with an adviser in the Science Education Program before starting their master's program. During their first semester, matriculated students are required to plan their graduate program with an adviser in the Science Education Program. Students must complete one of the six-sequences outlined below.

Masters Requirements - Sequence 1 Hybrid/Campus

Fulfill ALL of the following requirements:

Core Education (3-6 credits)

Earn at least 3 credits from the following:

- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 519 - Teaching Science in Middle and High School
- ESC 519: Candidates may also be required to take based on the Program Coordinator's assessment of prior experience and qualification.

AND

Curriculum and Instruction (12 credits)

- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 713 - Restorative Practices & Restorative Justice
OR ESC 596 – Student Teaching in Middle and High School Grades
- ESC 767 - The Museum as a Resource for Teaching Science in Secondary Settings.
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics
- ESC 767: Or equivalent.

AND

Research and Culmination Projects (6 credits)

- ESC 705 - Methods of Educational Research
- ESC 706 - Project Seminar I
- ESC 707 - Project Seminar II

OR

- ESC 705 - Methods of Educational Research
AND ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Graduate Science Content (9-12 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 501 - Topics in Genetics
- BIO 502 - Medicinal Plants

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- PHY 605 - Physics for Teachers
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR

Computer Science

Complete ANY of the following Courses:

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For candidates with an undergraduate science major or the equivalent and who have, or are eligible for, Initial Certification.

Masters Requirements - Sequence 2 Hybrid/Campus

Fulfill ALL of the following requirements:

Core Education (18 credits)

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education

- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
OR ESC 713 - Restorative Practices & Restorative Justice
- ESC 519 - Teaching Science in Middle and High School
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

AND

Curriculum and Instruction (12 credits)

Complete ALL of the following Courses:

- ESC 506 - Special Needs Education in TESOL and Secondary Settings
- ESC 536 - Teaching and Learning with Technology in Education
OR ESC 537 - Principles of Computer Science Education I
- ESC 767 - The Museum as a Resource for Teaching Science in Secondary Settings.
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics

AND

Research and Culmination Projects (6 credits)

- ESC 705 - Methods of Educational Research
- ESC 706 - Project Seminar I
- ESC 707 - Project Seminar II

OR

- ESC 705 - Methods of Educational Research
AND ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Graduate Science Content (6-8 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 501 - Topics in Genetics

- BIO 502 - Medicinal Plants

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- PHY 605 - Physics for Teachers
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR

Computer Science

Complete ANY of the following Courses:

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For Candidates with at least 36 credits in biology, chemistry, geology, or physics with no previous secondary education coursework and are seeking initial certification in Science 7-12.

Masters Requirements - Sequence 3 Hybrid/Campus

Fulfill ALL of the following requirements:

Core Education (10-12 credits)

Earn at least 10 credits from the following:

- ESC 519 - Teaching Science in Middle and High School
- ESC 789 - Independent Study in Curriculum Development
- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

AND

Curriculum and Instruction (9 credits)

Complete ALL of the following Courses:

- ESC 536 - Teaching and Learning with Technology in Education
- ESC 767 - The Museum as a Resource for Teaching Science in Secondary Settings.
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics
- **ESC 536:** Or equivalent.
- **ESC 767:** Or equivalent.

AND

Research and Culmination Projects (6 credits)

Complete ALL of the following Courses:

- ESC 705 - Methods of Educational Research
- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

AND

Graduate Science Content (6-8 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 611 - Problems in Microbiology
- BIO 612 - Plant Growth and Development
- BIO 618 - Problems in Ecology

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR

General Science

Complete ANY of the following Courses:

- BIO 618 - Problems in Ecology
- CHE 542 - Advanced Inorganic Chemistry
- GEO 501 - Earth Processes
- PHY 601 - Advanced General Physics

OR

Computer Science

Complete ANY of the following Courses:

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For candidates with an undergraduate science major who previously completed an education minor or equivalent courses and are seeking initial certification.

Masters Requirements - Sequence 4 Hybrid/Campus

Dual Certification Science 7-12 and Students with Disabilities P-12**Fulfill ALL of the following requirements:****Foundations Core (21 credits)****Complete ALL of the following Courses:**

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND**Curriculum and Instruction (12 credits)****Complete ALL of the following Courses:**

- ESC 519 - Teaching Science in Middle and High School
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics

- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching (6 credits)

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

AND

Graduate Science Content (6-8 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 501 - Topics in Genetics
- BIO 502 - Medicinal Plants

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR**Computer Science****Complete ANY of the following Courses:**

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For Candidates with at least 36 credits in biology, chemistry, geology, or physics with no previous secondary education coursework and an interest in dual Science 7-12 and Students with Disabilities P-12.

Masters Requirements - Sequence 5 Hybrid/Campus**Residency Program in Dual Certification Science and Students with Disabilities P-12****Fulfill ALL of the following requirements:****Foundations Core****Complete ALL of the following Courses:**

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems

- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

AND

Curriculum and Instruction

Complete ALL of the following Courses:

- ESC 519 - Teaching Science in Middle and High School
- ESC 770 - Methods of Teaching Science in Secondary Schools: Selected Topics
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

AND

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

AND

Graduate Science Content (6-8 credits)

Fulfill ANY of the following requirements:

Biology

Complete ANY of the following Courses:

- BIO 501 - Topics in Genetics
- BIO 502 - Medicinal Plants

OR

Chemistry

Complete ANY of the following Courses:

- CHE 542 - Advanced Inorganic Chemistry
- CHE 544 - Biochemistry
- CHE 548 - Special Topics in Modern Organic Chemistry

OR

Geology

Complete ANY of the following Courses:

- GEO 501 - Earth Processes
- GEO 502 - Earth History
- GEO 503 - Geologic Field Methods
- AST 601 - Astronomy of Solar Systems

OR

Physics

Complete ANY of the following Courses:

- PHY 601 - Advanced General Physics
- AST 601 - Astronomy of Solar Systems
- AST 602 - Stellar Astronomy

OR

Computer Science

Complete ANY of the following Courses:

- CMP 567 - Programming Methods I for Educators
- CMP 568 - Programming Methods II for Educators
- CMP 569 - Data Structures and Algorithms for Educators
- CMP 566 - Computer Thinking for Educators

Note:

- Science content course requirements must align with undergraduate science preparation and with intended certification subject area. Consult with an adviser in the Science Education Program for the appropriate course(s) to satisfy this requirement. Such courses may include but are not limited to the courses above.

For Candidates with at least 36 credits in biology, chemistry, geology, or physics with no previous secondary education coursework and an interest in dual Science 7-12 and Students with Disabilities P-12.

Masters Requirements - Sequence 6

Online Option (an add-on sequence that permits MSED candidates in Science 7-12 or dual certification in Science 7-12 and Students with Disabilities P-12 to complete Sequences 1-5 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person

options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

4. Rationale:

- We are requesting a distance education option so candidates can complete their courses online. This will not affect the program's learning objectives since only the course delivery mode is changing.
- We have simplified the descriptions and eliminated extraneous information.
- The Students with Disabilities program has replaced EDS 780 with EDS 701.
- NYSED has changed the SWD certification to include all grades (P-12). We added the new early childhood/childhood methods courses (EDE 723 and EDE 724) to meet this new certification requirement.
- None of these changes affect learning outcomes for this department or program.

5. Date of departmental approval: September 11, 2025

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Social Studies Teacher, Grades 7-12 Alternative Transitional B Certification, MA

Hegis Number: 0899.50

Program Code: 25793

1. Type of Change: Addition of Distance Education Format; Admission Requirements; Change in Degree Requirements

2. From:

~~Fulfills the academic requirements for Initial and Professional Certifications.~~

Major Requirements - Admission Requirements

Type: Prerequisite

Fulfill ALL of the following requirements:

- Must be eligible for the NYS Transitional B Certificate.
- Possess a bachelor's degree or equivalent from an accredited college or university. The bachelor's degree can be in history, any social science, or include an undergraduate record of 30 social studies credits with a minimum of 21 of the credits in history, and the remainder from the social sciences.
- A bachelor's degree with a minimum cumulative grade point average of 3.0 in the undergraduate work.
- ~~If conditionally accepted, must earn minimum 3.0 in courses designated by the Program Coordinator.~~
- ~~If conditionally accepted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.~~
- ~~Evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program.~~
- Candidates must schedule an interview with the Social Studies Program Coordinator that includes a transcript review.
- Two letters of recommendation.
- 500-word application essay on interest in the program as it relates to long-term career goals.

Additional Comments:

Prerequisite Content Core:

All candidates must satisfy the following prerequisite areas of study. These requirements may be met by either graduate courses or by undergraduate coursework taken prior to during graduate study. Undergraduate transcripts will be evaluated on an individual basis as part of the admissions process. Undergraduates can satisfy these

requirements prior to admission in the master's program by choosing courses for their distribution requirements in the areas listed.

- Anthropology
- Sociology
- Geography
- Political science
- Economics
- Psychology
- Two history survey courses, one in U.S. history and one in European or world history.

Major Requirements - Core Requirements/Curriculum: ~~Sequence 1~~

Type: Completion requirement

Track 1: Trans B Alternative Certification in Social Studies 7-12 (30 credits)

Fulfill ALL of the following requirements:

Introductory Core (6 credits)

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

Foundations Core (6 credits)

Complete ALL of the following Courses:

- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

Pedagogical Core (6 credits)

Complete ALL of the following Courses:

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

Content Core (3 credits)

Complete ANY of the following Courses:

- HIW 533 - World History and Historiography
- HIU 534 - U.S. History and Historiography

Project Seminar (3 credits)

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Student Teaching (6 credits)

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek Trans B, Initial, and Professional Certifications in Social Studies 7-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

Track 2: Trans B Alternative Dual Certification in Social Studies 7-12 and Students with Disabilities, ~~Generalist, Grades 7-12~~ (36 credits)

Fulfill ALL of the following requirements:

Introductory Core (6 credits)

Complete ALL of the following Courses:

- EDS 780 - Adolescent Development
- EDS 743 - Behavioral Assessment, Management, and Change

Foundations Core (12 credits)

Complete ALL of the following Courses:

- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- EDS 712 – The Adolescent with Disabilities
- EDS 741 – Psycho-educational Evaluation of Children With Learning Problems

Pedagogical Core (12-credits)

Complete ALL of the following Courses:

- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- ESC 533 - Teaching World History in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

Student Teaching (6 credits)

Complete ALL of the following Courses:

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms

- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek Trans B, Initial, and Professional Certifications in Social Studies 7-12 and Students with Disabilities (SWD), Generalist, Grades 7-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

Additional Comments:

~~After fulfilling the degree requirements including New York State distribution requirements in social studies, candidates are recommended for initial certification in Social Studies Education 7-12. To be eligible for certification in New York State, the candidate's TEACH account must include (a) an application for the Initial Social Studies (Grades 7-12) certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; (c) passing scores on the following New York State examinations: Educating All Students (EAS), and Social Studies CST; and (d) the completed fingerprinting clearance. Please see adviser for more information.~~

~~In order to qualify for Professional Certification in Social Studies Education 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school, which serves grades 7-12, and must meet any additional New York State requirements.~~

~~Qualified Social Studies Education 7-12 candidates may also apply to one of the following Advanced Certificates:~~

- ~~(1) Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL certified upon successful completion of that program of study or the Advanced Certificate;~~
- ~~(2) Advanced Certificate: Middle Childhood Extension, Grades 5-6, and extend their certification to the lower grades; or~~
- ~~(3) Advanced Certificate: Bilingual Extension, and become certified to teach social studies in the native language as well as English.~~

Major Requirements – Additional Certification Requirements

Type: Completion requirement

~~After fulfilling the Track 1 and 2 requirements including New York State distribution requirements in social studies, candidates are recommended for initial certification in Social Studies Education 7-12. To be eligible for certification in New York State, the candidate's TEACH account must include (a) an application for the Initial Social Studies (Grades 7-12) certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; (c) passing scores on the following New York State examinations: Educating All Students (EAS), and Social Studies CST; and (d) the completed fingerprinting clearance. Please see adviser for more information.~~

~~In order to qualify for Professional Certification in Social Studies Education 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of full-time teaching in a public or private school, which serves grades 7-12, and must meet any additional New York State requirements.~~

~~Qualified Social Studies Education 7-12 candidates may also apply to one of the following Advanced Certificates:~~

~~(1) Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL certified upon successful completion of that program of study or the Advanced Certificate;~~

~~(2) Advanced Certificate: Middle Childhood Extension, Grades 5-6, and extend their certification to the lower grades; or~~

~~(3) Advanced Certificate: Bilingual Extension, and become certified to teach social studies in the native language as well as English.~~

~~In addition to the requirements above, Track 2 candidates will also need to complete (a) an application for the Initial Students with Disabilities Generalist 7-12 certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; and (c) passing scores on the Special Education Content Specialty Test.~~

~~Tracks 1 and 2 candidates will also complete the Trans B application and all relevant requirements including certification exams and workshops.~~

3. **To:**

This master's program is designed for Trans B candidates who seek initial and professional certification in Social Studies 7-12 or dual certification in Social Studies 7-12 and Students with Disabilities P-12.

This program offers three tracks for candidates possessing a Trans B license from New York State.

- Track 1 (30 credits): Social Studies 7-12 Hybrid/Campus.
- Track 2 (42 credits): Dual certification in Social Studies 7-12 and Students with Disabilities P-12 Hybrid/Campus.
- Track 3 Online Option (an add-on sequence that permits Alternative Certification Trans B candidates in Social Studies 7-12 or Dual Certification Social Studies 7-12 and Students with Disabilities P-12 to complete Tracks 1-2 courses as asynchronous or video synchronous)

Major Requirements - Admission Requirements

Type: Prerequisite

Fulfill ALL of the following requirements:

- Must be eligible for the NYS Transitional B Certificate.
- Possess a bachelor's degree or equivalent from an accredited college or university. The bachelor's degree can be in history, any social science, or include an undergraduate record of 30 social studies credits with a minimum of 21 of the credits in history, and the remainder from the social sciences.
- A bachelor's degree with a minimum cumulative grade point average of 3.0 in the undergraduate work.
- Candidates must schedule an interview with the Social Studies Program Coordinator that includes a transcript review.
- Two letters of recommendation.

- 500-word application essay on interest in the program as it relates to long-term career goals.

Additional Comments:**Prerequisite Content Core:**

All candidates must satisfy the following prerequisite areas of study. These requirements may be met by either graduate courses or by undergraduate coursework taken prior to during graduate study. Undergraduate transcripts will be evaluated on an individual basis as part of the admissions process. Undergraduates can satisfy these requirements prior to admission in the master's program by choosing courses for their distribution requirements in the areas listed.

- Anthropology
- Sociology
- Geography
- Political science
- Economics
- Psychology
- Two history survey courses, one in U.S. history and one in European or world history.

Major Requirements - Core Requirements/Curriculum: [Track 1](#)

Type: Completion requirement

Track 1: Hybrid/ Campus Trans B Alternative Certification in Social Studies 7-12 (30 credits)**Fulfill ALL of the following requirements:****Introductory Core (6 credits)****Complete ALL of the following Courses:**

- ESC 501 - Psychological Foundations of Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

Foundations Core (6 credits)**Complete ALL of the following Courses:**

- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

Pedagogical Core (6 credits)**Complete ALL of the following Courses:**

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

Content Core (3 credits)**Complete ANY of the following Courses:**

- HIW 533 - World History and Historiography

- HIU 534 - U.S. History and Historiography

Project Seminar (3 credits)**Complete ALL of the following Courses:**

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Student Teaching (6 credits)**Complete ALL of the following Courses:**

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek Trans B, Initial, and Professional Certifications in Social Studies 7-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

Track 2: Hybrid/ Campus Trans B Alternative Dual Certification in Social Studies 7-12 and Students with Disabilities P-12 (42 credits)**Fulfill ALL of the following requirements:****Introductory Core (6 credits)****Complete ALL of the following Courses:**

- EDS 701 – Understanding the Individual with Disabilities
- EDS 743 - Behavioral Assessment, Management, and Change

Foundations Core (12 credits)**Complete ALL of the following Courses:**

- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- EDS 712 – The Adolescent with Disabilities
- EDS 741 – Psycho-educational Evaluation of Children With Learning Problems

Pedagogical Core (18 credits)**Complete ALL of the following Courses:**

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings

- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- ESC 533 - Teaching World History in Middle and High School
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

Student Teaching (6 credits)**Complete ALL of the following Courses:**

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek Trans B, Initial, and Professional Certifications in Social Studies 7-12 and Students with Disabilities P-12. The Trans B license allows candidates to begin teaching full-time while completing the remaining degree requirements.

Track 3: Online Option (an add-on sequence that permits Alternative Certification Trans B candidates in Social Studies 7-12 or Dual Certification Social Studies 7-12 and Students with Disabilities P-12 to complete Tracks 1-2 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

4. Rationale:

- We are requesting a distance education option so candidates can complete their courses online. This will not affect the program's learning objectives since only the course delivery mode is changing.
- We have simplified the descriptions and eliminated extraneous information.
- The Students with Disabilities program has replaced EDS 780 with EDS 701.
- NYSED has changed the SWD certification to include all grades (P-12). We added the new early childhood/childhood methods courses (EDE 723 and EDE 724) to meet this new certification requirement.
- None of these changes affect learning outcomes for this department or program.

5. Date of departmental approval: September 11, 2025

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Social Studies 7-12, MA

Hegis Number: 2201.01

Program Code: 25794

1. Type of Change: Addition of Distance Education Format; Admission Requirements; Change in Degree Requirements

2. From:

This program ~~offers five sequences and is designed for candidates seeking a Master's degree in Social Studies Education, grades 7-12 and dual certification for Teaching Students with Disabilities (SWD) 7-12 Generalist.~~

Masters Requirements - Admission Requirements

Type: Prerequisite

Fulfill ALL of the following requirements:

- Possess a bachelor's degree or equivalent from an accredited college or university. The bachelor's degree can be in history, any social science, or include an undergraduate record of 30 social studies credits with a minimum of 21 of the credits in history, and the remainder from the social sciences.
- A bachelor's degree with a minimum cumulative grade point average of 3.0 in the undergraduate work.
- ~~If conditionally accepted, must earn minimum 3.0 in courses designated by the Program Coordinator.~~
- ~~If conditionally accepted, meet conditions, starting in the first semester and finishing in no more than three consecutive semesters.~~
- ~~Evidence of having completed a course in Special Education (ESC 463 or the equivalent). Students who have not taken this course as an undergraduate must take ESC 506 as part of their graduate program in Sequences 1 through 3.~~
- Candidates must schedule an interview with the Social Studies Program Coordinator that includes a transcript review.
- Two letters of recommendation.
- 500-word application essay on interest in the program as it relates to long-term career goals.
- For Sequence 2 only, present evidence of meeting the following: core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.
- ~~For Sequence 5 only, submit passing scores on the New York State Content Specialty Tests (CSTs) in Social Studies and Students with Disabilities.~~

Prerequisite Content Core:

All candidates must satisfy the following prerequisite areas of study. These requirements may be met by either graduate courses or by undergraduate coursework taken prior to during graduate study. Undergraduate transcripts will be evaluated on an individual basis as part of the admissions process. Undergraduates can satisfy these requirements prior to admission in the master's program by choosing courses for their distribution requirements in the areas listed.

- Anthropology
- Sociology
- Geography
- Political science
- Economics
- Psychology
- Two history survey courses, one in U.S. history and one in European or world history.

Masters Requirements - Master of Arts**Type:** Completion requirement**Sequence 1: History Intensive Option****Earn at least 41 credits****Sequence 2: Undergraduate Education Minor Option****Earn at least 30 credits****Sequence 3: History or Social Science Undergraduate Major Option****Earn at least 30 credits****Sequence 4: Dual Certification Social Studies and Teaching Students with****Disabilities Generalist Grades 7-12 Option****Earn at least 39 credits****Sequence 5: Residency Program in dual Social Studies 7-12 and SWD 7-12****Generalist certification.****Earn at least 42 credits****Masters Requirements - Sequence 1: History Intensive Option****Type:** Completion requirement**History Intensive Option****Fulfill ALL of the following requirements:****Foundations Core****Complete ALL of the following Courses:**

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

- ESC 506 - Special Needs Education in TESOL and Secondary Settings

Pedagogical Core**Complete ALL of the following Courses:**

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

Content Core**Complete ALL of the following Courses:**

- HIW 533 - World History and Historiography
- HIU 534 - U.S. History and Historiography
- Take three additional history or social science courses chosen in consultation with the adviser.

Project Seminar**Complete ALL of the following Courses:**

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Student Teaching**Earn at least 6 credits from the following:**

- ESC 596 - Student Teaching in the Middle and High School Grades
AND ESC 612 - Student Teaching Seminar in Secondary Education
- ESC 595 - Internship in Classroom Teaching
AND ESC 612 - Student Teaching Seminar in Secondary Education

Candidates with an undergraduate degree in history, any of the social sciences or a 30 credit concentration in social studies who lack core education requirements and seek initial certification in Social Studies Education ~~grades~~ 7-12. Non-history and non-social science undergraduate majors may qualify for this sequence with the required pre-requisites.

Masters Requirements - Sequence 2: Undergraduate Education Minor**Type:** Completion requirement**Undergraduate Education Minor****Fulfill ALL of the following requirements:****Pedagogical Core****Complete ALL of the following Courses:**

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

Content Core**Earn at least 15 credits from the following:**

- HIW 533 - World History and Historiography
- HIU 534 - U.S. History and Historiography
- Take three additional history or social science courses chosen in consultation with the adviser.

Project Seminar**Complete ALL of the following Courses:**

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Student Teaching**Complete ALL of the following Courses:**

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates with an undergraduate degree in history, any of the social sciences or a 30 credit concentration in social studies who previously completed an education minor or equivalent education courses and are seeking initial certification in Social Studies Education grades 7-12.

Masters Requirements - Sequence 3: History or Social Science Undergraduate Major Option**Type:** Completion requirement**History or Social Science Undergraduate Major Option****Fulfill ALL of the following requirements:****Foundations Core****Complete ALL of the following Courses:**

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

Pedagogical Core**Complete ALL of the following Courses:**

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

Content Core**Earn at least 3 credits from the following:**

- HIW 533 - World History and Historiography

- HIU 534 - U.S. History and Historiography

Project Seminar**Complete ALL of the following Courses:**

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Student Teaching**Complete ALL of the following Courses:**

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek initial certification in Social Studies ~~Education~~ ~~grades~~ 7-12.

Masters Requirements - Sequence 4: Dual Certification Social Studies and ~~Teaching~~ Students with Disabilities ~~Generalist~~ ~~Grades~~ 7-12

Type: Completion requirement

Dual Certification Social Studies and ~~Teaching~~ Students with Disabilities**~~Generalist~~ ~~Grades~~ 7-12****Fulfill ALL of the following requirements:****Foundations Core****Complete ALL of the following Courses:**

- EDS 780 - Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

Pedagogical Core**Complete ALL of the following Courses:**

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

Student Teaching**Complete ALL of the following Courses:**

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek initial certification in Social Studies ~~Education~~ and Students with Disabilities (SWD) grades 7-12.

Masters Requirements - Sequence 5: Residency Program in Dual Social Studies 7-12 and SWD 7-12 Generalist certification

Type: Completion requirement

Fulfill ALL of the following requirements:**Foundations Core****Complete ALL of the following Courses:**

- EDS 780 - Adolescent Development
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

Pedagogical Core**Complete ALL of the following Courses:**

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools

- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

Student Teaching**Complete ALL of the following Courses:**

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek initial certification in Social Studies Education and Students with Disabilities (SWD) grades 7-12.

Masters Requirements – Additional Certification Requirements**Type:** Completion requirement

After fulfilling the Sequences 1 through 5 degree requirements including New York State distribution requirements in social studies, candidates are recommended for initial certification in Social Studies Education 7-12. To be eligible for certification in New York State, the candidate's TEACH account must include (a) an application for the Initial Social Studies (Grades 7-12) certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; (c) passing scores on the following New York State examinations: Educating All Students (EAS), and Social Studies CST; and (d) the completed fingerprinting clearance. Please see adviser for more information.

In addition to the requirements above, Sequence 4 and 5 candidates will also need to complete (a) an application for the Initial Students with Disabilities Generalist 7-12 certificate through the Approved Teacher Preparation Program pathway (b) the Lehman College recommendation; and (c) passing scores on the Special Education Content Specialty Test.

In order to qualify for Professional Certification in Social Studies Education 7-12, in addition to the Master's degree, teachers must complete one year of mentored, full-time teaching and two years of fulltime teaching in a public or private school, which serves grades 7-12, and must meet any additional New York State requirements.

Qualified Social Studies Education 7-12 candidates may also apply to one of the following Advanced Certificates:

- (1) Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL certified upon successful completion of that program of study or the Advanced Certificate;
- (2) Advanced Certificate: Middle Childhood Extension, Grades 5-6, and extend their certification to the lower grades; or
- (3) Advanced Certificate: Bilingual Extension, and become certified to teach social studies in the native language as well as English.

3. To:

This program is designed for candidates seeking a Master's degree in Social Studies 7-12 or dual certification in Social Studies 7-12 and Students with Disabilities P-12.

Candidates wishing to do so may complete the degree program entirely online by taking online courses only.

Masters Requirements - Admission Requirements**Type:** Prerequisite**Fulfill ALL of the following requirements:**

- Possess a bachelor's degree or equivalent from an accredited college or university. The bachelor's degree can be in history, any social science, or include an undergraduate record of 30 social studies credits with a minimum of 21 of the credits in history, and the remainder from the social sciences.
- A bachelor's degree with a minimum cumulative grade point average of 3.0 in the undergraduate work.
- Candidates must schedule an interview with the Social Studies Program Coordinator that includes a transcript review.
- Two letters of recommendation.
- 500-word application essay on interest in the program as it relates to long-term career goals.
- For Sequence 2, present evidence of meeting the following: core requirements in educational psychology, educational foundations, literacy, technology, and special education, including supervised field experiences.

Prerequisite Content Core:

All candidates must satisfy the following prerequisite areas of study. These requirements may be met by either graduate courses or by undergraduate coursework taken prior to during graduate study. Undergraduate transcripts will be evaluated on an individual basis as part of the admissions process. Undergraduates can satisfy these requirements prior to admission in the master's program by choosing courses for their distribution requirements in the areas listed.

- Anthropology
- Sociology
- Geography
- Political science
- Economics
- Psychology
- Two history survey courses, one in U.S. history and one in European or world history.

Masters Requirements - Master of Arts**Type:** Completion requirement**Sequence 1: Hybrid/ Campus History Intensive Option****Earn at least 41 credits**

Sequence 2: Hybrid/ Campus Undergraduate Education Minor Option
Earn at least 30 credits

Sequence 3: Hybrid/ Campus History or Social Science Undergraduate Major Option
Earn at least 30 credits

Sequence 4: Hybrid/ Campus Dual Certification Social Studies 7-12 and Students with Disabilities P-12
Earn at least 45 credits

Sequence 5: Hybrid/ Campus Residency Program in Dual Certification Social Studies 7-12 and Students with Disabilities P-12
Earn at least 48 credits

Sequence 6: Online Option (an add-on sequence that permits M.A. candidates in Social Studies 7-12 or dual certification in Social Studies 7-12 and Students with Disabilities P-12 to complete Sequences 1-5 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

Masters Requirements - Sequence 1: Hybrid/ Campus History Intensive Option

Type: Completion requirement

History Intensive Option

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

Pedagogical Core

Complete ALL of the following Courses:

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

Content Core

Complete ALL of the following Courses:

- HIW 533 - World History and Historiography

- HIU 534 - U.S. History and Historiography
- Take three additional history or social science courses chosen in consultation with the adviser.

Project Seminar**Complete ALL of the following Courses:**

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Student Teaching**Earn at least 6 credits from the following:**

- ESC 596 - Student Teaching in the Middle and High School Grades
AND ESC 612 - Student Teaching Seminar in Secondary Education
- ESC 595 - Internship in Classroom Teaching
AND ESC 612 - Student Teaching Seminar in Secondary Education

Candidates with an undergraduate degree in history, any of the social sciences or a 30 credit concentration in social studies who lack core education requirements and seek initial certification in Social Studies 7-12. Non-history and non-social science undergraduate majors may qualify for this sequence with the required pre-requisites.

Masters Requirements - Sequence 2: Hybrid/ Campus Undergraduate Education**Minor****Type:** Completion requirement**Undergraduate Education Minor****Fulfill ALL of the following requirements:****Pedagogical Core****Complete ALL of the following Courses:**

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

Content Core**Earn at least 15 credits from the following:**

- HIW 533 - World History and Historiography
- HIU 534 - U.S. History and Historiography
- Take three additional history or social science courses chosen in consultation with the adviser.

Project Seminar**Complete ALL of the following Courses:**

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Student Teaching**Complete ALL of the following Courses:**

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates with an undergraduate degree in history, any of the social sciences or a 30 credit concentration in social studies who previously completed an education minor or equivalent education courses and are seeking initial certification in Social Studies 7-12.

Masters Requirements - Sequence 3: Hybrid/ Campus History or Social Science

Undergraduate Major Option

Type: Completion requirement

History or Social Science Undergraduate Major Option

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- ESC 501 - Psychological Foundations of Education
- ESC 502 - Historical Foundations of Education: A Multicultural Perspective
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education
- ESC 506 - Special Needs Education in TESOL and Secondary Settings

Pedagogical Core

Complete ALL of the following Courses:

- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government

Content Core

Earn at least 3 credits from the following:

- HIW 533 - World History and Historiography
- HIU 534 - U.S. History and Historiography

Project Seminar

Complete ALL of the following Courses:

- ESC 708 - Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 612 - Student Teaching Seminar in Secondary Education

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek initial certification in Social Studies 7-12.

Masters Requirements - Sequence 4: Hybrid/ Campus Dual Certification Social Studies 7-12 and Students with Disabilities P-12**Type:** Completion requirement**Dual Certification Social Studies 7-12 and Students with Disabilities P-12****Fulfill ALL of the following requirements:****Foundations Core****Complete ALL of the following Courses:**

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

Pedagogical Core**Complete ALL of the following Courses:**

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings
- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

Student Teaching**Complete ALL of the following Courses:**

- ESC 597 - Student Teaching in Inclusive Secondary Classrooms

- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek initial certification in Social Studies 7-12 and Students with Disabilities P-12.

Masters Requirements - Sequence 5: Hybrid/ Campus Residency Program in Dual Certification Social Studies 7-12 and Students with Disabilities P-12

Type: Completion requirement

Fulfill ALL of the following requirements:

Foundations Core

Complete ALL of the following Courses:

- EDS 701 – Understanding the Individual with Disabilities
- EDS 712 - The Adolescent with Disabilities
- EDS 714 - Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set
- EDS 716 - Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities
- EDS 741 - Psycho-educational Evaluation of Children with Learning Problems
- EDS 743 - Behavioral Assessment, Management, and Change
- ESC 529 - Language and Literacies Acquisition in Middle & HS Education

Pedagogical Core

Complete ALL of the following Courses:

- EDE 723 – Teaching ELA and Social Studies to Diverse Students in Early Childhood and Elementary School Settings
- EDE 724 – Teaching Math, Science, Art to Diverse Students in Early Childhood and Elementary School Settings
- ESC 533 - Teaching World History in Middle and High School
- ESC 534 - Teaching U.S. History and Government
- ESC 540 - Teaching ELA and Social Studies to Diverse Students in Secondary Schools
- ESC 541 - Teaching Math and Science to Diverse Students in Middle and High School

Student Teaching

Complete ALL of the following Courses:

- ESC 596 - Student Teaching in the Middle and High School Grades
- ESC 597 - Student Teaching in Inclusive Secondary Classrooms
- ESC 613 - Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms

Candidates with an undergraduate degree in history or a social science, who lack core education requirements and seek initial certification in Social Studies Education and Students with Disabilities (SWD).

Sequence 6: Online Option (an add-on sequence that permits M.A. candidates in Social Studies 7-12 or dual certification in Social Studies 7-12 and Students with Disabilities P-12 to complete Sequences 1-5 courses as asynchronous or video synchronous). The admission criteria and curriculum for the online option are the same as for the hybrid and in-person options including the same course description, credit and hour requirements, learning objectives, pre-requisites, and any other curricular requirements.

4. Rationale:

- We are requesting a distance education option so candidates can complete their courses online. This will not affect the program's learning objectives since only the course delivery mode is changing.
- We have simplified the descriptions and eliminated extraneous information.
- The Students with Disabilities program has replaced EDS 780 with EDS 701.
- NYSED has expanded the SWD certification to include all grades (P-12). We have added the new early childhood/childhood methods courses (EDE 723 and EDE 724) to address this new certification requirement.
- None of these changes affect learning outcomes for this department or program.

5. Date of departmental approval: September 11, 2025

**LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course title, description, adding repeatable attribute

2. **From:**

Department(s)	Middle and High School Education
Career	<input type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Graduate
Academic Level	<input checked="" type="checkbox"/> Regular <input type="checkbox"/> Compensatory <input type="checkbox"/> Developmental <input type="checkbox"/> Remedial
Subject Area	Education
Course Prefix & Number	ESC 708
Course Title	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas
Description	Development of a culminating curriculum project in candidates' field that includes an analysis of contextual factors; integration of prior coursework and research; theoretical foundations of the discipline; learning goals; assessment plan; design of instruction; technology; analysis of student learning and reflection on teaching practice.
Pre/ Co Requisites	PREREQ: Departmental permission.
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Required <input type="checkbox"/> English Composition <input type="checkbox"/> Mathematics <input type="checkbox"/> Science <input type="checkbox"/> Flexible <input type="checkbox"/> World Cultures <input type="checkbox"/> US Experience in its Diversity <input type="checkbox"/> Creative Expression <input type="checkbox"/> Individual and Society <input type="checkbox"/> Scientific World

3. To:

Department(s)	Middle and High School Education
Career	<input type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Graduate
Academic Level	<input checked="" type="checkbox"/> Regular <input type="checkbox"/> Compensatory <input type="checkbox"/> Developmental <input type="checkbox"/> Remedial
Subject Area	Education
Course Prefix & Number	ESC 708
Course Title	Project Seminar in Specialized Areas
Description	Development of a culminating project in the candidate's <u>content area</u> , aligned with that field's <u>professional guidelines and state and national standards</u> . <u>(May be repeated for credit in a different departmental content area for a maximum of 6 credits.)</u>
Pre/ Co Requisites	PREREQ: Departmental permission.
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Required <input type="checkbox"/> English Composition <input type="checkbox"/> Mathematics <input type="checkbox"/> Science <input type="checkbox"/> Flexible <input type="checkbox"/> World Cultures <input type="checkbox"/> US Experience in its Diversity <input type="checkbox"/> Creative Expression <input type="checkbox"/> Individual and Society <input type="checkbox"/> Scientific World

4. Rationale:

ESC 708 is a culminating project required by most master's programs in our department, each with a distinct content area. For candidates who complete two different graduate degrees, we are adding the option of repeating this course for credit. Also, the current course title and description were created around an obsolete State assessment. We updated the title and description to better reflect the current course and to give each program flexibility in meeting their specific professional standards. Neither change affects learning outcomes.

5. Date of departmental approval: September 11, 2025