

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Advanced Certificate: Bilingual
Extension grades 5-12
Hegis Number: 0899
Program Code: TBD
Effective Term: Fall 2022

1. **Type of Change:** *New Advanced Certification program leading to a NYS Bilingual Extension for teachers holding grades 5-12 certification.*

2. **Description:**

Advanced Certificate: Bilingual Extension grades 5-12 (12 Credits)

This program is designed for teachers who hold New York State secondary teacher certification grades 5-12; who are proficient in English and in a home language other than English; and who seek a bilingual extension to teach their certification area in both languages.

Admission Requirements

1. A bachelor's degree (or its equivalent) from an accredited college or university.
2. An undergraduate or master's degree index of at least 3.0.
3. New York State secondary teacher certification grades 5-12.
4. One (1) letter of recommendation
5. Demonstrate proficiency in English and in the home language other than English by completing an interview and career essays in both languages.
6. Have successfully completed a course in multicultural or cultural perspectives (at least 3 credits). *Candidates may take ESC 769 or another course selected in consultation with the adviser to meet this requirement.*
7. Meet additional Department, College, and State requirements, if any.

Certificate Requirements

Students must consult with an adviser in the Bilingual Extension grades 5-12 program before beginning their studies. During their first semester, matriculated students are required to plan their graduate program with the adviser. To successfully complete the program, students must complete the curriculum outlined below. Candidates for the Bilingual Extension grades 5-12 are expected to pass the Bilingual Education Assessment (BEA) before completing nine (9) program credits or the first two semesters of matriculation.

Curriculum

Bilingual Extension: Middle and High School Education, Grades 5-12

ESC 757 (3), ESC 759 (3), ESC 761 (3), ESC 763 (3)
TOTAL: 12 crs.

3. **Rationale:**

We propose the Advanced Certificate: Bilingual Extension grades 5-12 to equip bilingual secondary teachers to teach in bilingual programs and meet the social and pedagogical needs of multilingual learners in content area classrooms.

4. **Date of departmental approval:** October 4, 2021

**LEHMAN COLLEGE
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DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: English Education MSEd

Hegis Number: 1501.01 (Sequences 1-3)

Hegis Number: 0899.50 (Sequence 4)

Program Code: 25803 (Sequences 1-3)

Program Code: 25802 (Sequence 4)

Effective Term: Fall 2022

1. **Type of Change:** Change in Degree Requirements

2. **From:**
English Education M.S.Ed. Program

This program is designed for students seeking a master's degree in English Education, grades 7-12. ~~Upon successful completion of additional certification requirements, including specified teacher examinations, candidates will also be eligible to receive both Initial and Professional Certification to teach English in New York State in Grades 7-12. Applicants will apply to one of the 4 following sequences based on their qualifications:~~

Sequence 1 (30 crs.): Candidates already certified in English Education 7-12.

Sequence 2 (32-36 crs.): Candidates seeking initial certification in English Education 7-12 who have completed the undergraduate education minor but are not certified.

Sequence 3 (40-45 crs.): Candidates ~~who seek initial New York State~~ certification in English Education 7-12 but who lack any coursework in education.

Sequence 4 (38 crs.): Transitional B candidates ~~who seek initial New York State~~ certification in English Education 7-12.

~~English Education 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.
- 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 Sequence 4 only, possess Transitional B certificate in Teaching English grades 7-12.~~

- 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.
- ~~Submit a 500-word essay outlining career goals.~~
- ~~Submit two to three~~ letters of recommendation.
- ~~Participate in an individual~~ interview.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level. Note: An applicant whose GRE score is lower than 1 standard deviation below the 50th percentile may be admitted to a program with the following stipulation: The candidate and advisor will prepare a retention plan to support the candidate in further developing the skills needed to meet the 50th percentile or better on a nationally normed basic skills test approved by the School of Education.

English Education Degree Requirements

~~Students must consult with an adviser in the M.S Ed program in English Education before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser. All students will complete one of the following sequences: Sequence 1 (30 crs.), Sequence 2 (32-36 crs.); Sequence 3 (40-45 crs.) or Sequence 4 (38 crs.).~~

Sequence 1 (30 crs.):

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

Methods of Teaching English in Middle and High School (15-18 crs):

		Credits
ESC 522	Teaching English in Middle and High School	3
ESC 721	Literature for Middle and High School Students	3
ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 725	Teaching English Grammar	3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics	3
ESC 720	Reading and Reading Materials for Adolescents	3
ESC 722	Teaching Communication Skills in the Content Areas	3

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

English Electives (9-12 credits):

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

Master's Project (3 credits):

		Credits
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
<i>ESC 708: Culminates in an approved curriculum project.</i>		

Sequence 2 (31-36 crs.):

Candidates seeking initial certification who have met core education requirements.

Methods of Teaching English in Middle and High School (15-18 crs):

		Credits
ESC 522	Teaching English in Middle and High School	3
ESC 721	Literature for Middle and High School Students	3
ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 725	Teaching English Grammar	3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics	3
ESC 772	Evaluation and Assessment of Student Learning	3

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

English Electives (9 credits):

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

Master's Project (3 credits):

		Credits
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
<i>ESC 708: Culminates in an approved curriculum project.</i>		

Student Teaching or Teaching Internship (4-6 crs):

Teaching Internship

		Credits
ESC 595	Internship in Classroom Teaching Plus	1-3
ESC 612	Seminar in Secondary Student Teaching	3
or		

Student Teaching

		Credits
ESC 596	Student Teaching in the Middle and High School Grades Plus	3
ESC 612	Seminar in Secondary Student Teaching	3

Sequence 3 (40-45 crs.):

Candidates with an undergraduate degree in English or the equivalent who lack education courses and who seek initial certification in English Education grades 7-12.

Core Education (45 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in Secondary Education	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 522	Teaching English in Middle and High School	3

ESC 506: Or the equivalent.

Methods of Teaching English in Middle and High School (9 credits):

Selected from:

		Credits
ESC 720	Reading and Reading Materials for Adolescents	3
ESC 721	Literature for Middle and High School Students	3
ESC 722	Teaching Communication Skills in the Content Areas	3

ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics	3
ESC 772	Evaluation and Assessment of Student Learning	3
ESC 725	Teaching English Grammar	3

English Electives (9-12 credits):

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

Master's Project (3 credits):

		Credits
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

ESC 708: Culminates in an approved curriculum project.

Student Teaching or Teaching Internship (5-6 crs):**Teaching Internship**

		Credits
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Plus Seminar in Secondary Student Teaching	3

or

Student Teaching

		Credits
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Plus Seminar in Secondary Student Teaching	3

Sequence 4 (38 crs.):

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

Core Education (12 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 529	Language and Literacies Acquisition in Secondary Education	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 522	Teaching English in Middle and High School	3
<i>ESC 506: Or the equivalent.</i>		

Methods of Teaching English in Middle and High School (9 credits):

Selected from:

		Credits
ESC 720	Reading and Reading Materials for Adolescents	3
ESC 721	Literature for Middle and High School Students	3
ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics	3
ESC 772	Evaluation and Assessment of Student Learning	3
ESC 725	Teaching English Grammar	3

English Electives (9 credits):

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

Master's Project (3 credits):

		Credits
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
<i>ESC 708: Culminates in an approved curriculum project.</i>		

Teaching Internship (5 credits):

	Credits
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ESC 595	Internship in Classroom Teaching Plus	1-3
ESC 612	Seminar in Secondary Student Teaching	3

~~Additional Requirements for Initial and Professional Certification in English Education 7-12.~~

~~All candidates must take the English Language Arts Content Specialty Test (CST) by the end of their second semester in the program. Candidates who do not pass the exam before completing half of their program credits may be asked to take additional English courses.~~

~~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), Teacher Performance Assessment (edTPA), and English CST (teachers who were certified prior to April 30, 2014, only present passing scores on the English CST); and (c) demonstrate successful completion of a liberal arts and sciences core. Please see advisor for more information.~~

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

3. To:

English Education M.S.Ed. Program (Fulfills the academic requirements for Initial and Professional Certifications.)

This program offers six 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.

Sequence 1 (30 crs.): Candidates already certified in English Education 7-12.

Sequence 2 (30 crs.): Candidates seeking initial certification in English Education 7-12 who have completed the undergraduate education minor but are not certified.

Sequence 3 (35-36 crs.): Candidates seeking initial certification in English Education 7-12 but who lack any coursework in education.

Sequence 4 (35 crs.): Alternative Transitional B candidates seeking initial certification in English Education 7-12.

Sequence 5 (39 crs.): Candidates seeking dual certification in English Education 7-12 Students with Disabilities (SWD) certification.

Sequence 6 (42 crs.): Alternative Transitional B candidates seeking dual certification in English Education 7-12 and SWD 7-12 Generalist.

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.
- 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 4 and 6, possess Transitional B license from New York State.
- 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.
- 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.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level. Note: An applicant whose GRE score is lower than 1 standard deviation below the 50th percentile may be admitted to a program with the following stipulation: The candidate and advisor will prepare a retention plan to support the candidate in further developing the skills needed to meet the 50th percentile or better on a nationally normed basic skills test approved by the School of Education.

Degree Requirements

Sequence 1 (30 crs.): English Content Intensive for Certified Teachers

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

Methods of Teaching English in Middle and High School (15-18 crs):

		Credits
ESC 522	Teaching English in Middle and High School	3
ESC 721	Literature for Middle and High School Students	3
ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 725	Teaching English Grammar	3

ESC 730	Methods of Teaching English in Middle and High School: Selected Topics	3
ESC 720	Reading and Reading Materials for Adolescents	3

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

English Electives (9-12 credits):

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

Master's Project (3 credits):

		Credits
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Sequence 2 (30 crs.): Undergraduate Education Minor Option

Candidates seeking initial certification who have met core education requirements.

Methods of Teaching English in Middle and High School (15-18 crs):

		Credits
ESC 522	Teaching English in Middle and High School	3
ESC 721	Literature for Middle and High School Students	3
ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 725	Teaching English Grammar	3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics	3
ESC 772	Evaluation and Assessment of Student Learning	3

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

English Electives (3-6 credits):

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

Master's Project (3 credits):

		Credits
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Student Teaching or Teaching Internship (6 crs):**Teaching Internship**

		Credits
ESC 595	Internship in Classroom Teaching	1-3
	Plus	
ESC 612	Seminar in Secondary Student Teaching	3
or		

Student Teaching

		Credits
ESC 596	Student Teaching in the Middle and High School Grades	3
	Plus	
ESC 612	Seminar in Secondary Student Teaching	3

Sequence 3 (35-36 crs.): English Undergraduate Major Option

Candidates with an undergraduate degree in English or the equivalent who lack education courses and who seek initial certification in English Education grades 7-12.

Core Education (12 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in <u>Middle and High School</u> Education	3
ESC 506	<u>Teaching Students with Disabilities</u>	3

Methods of Teaching English in Middle and High School (12 credits):

Selected from:

		Credits
<u>ESC 522</u>	<u>Teaching English in Middle and High School</u>	<u>3</u>

ESC 720	Reading and Reading Materials for Adolescents	3
ESC 721	Literature for Middle and High School Students	3
ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics	3
ESC 772	Evaluation and Assessment of Student Learning	3
ESC 725	Teaching English Grammar	3

English Electives (3 credits):

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

Master's Project (3 credits):

		Credits
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Student Teaching or Teaching Internship (5-6 crs):**Teaching Internship**

		Credits
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Plus Seminar in Secondary Student Teaching	3

or

Student Teaching

		Credits
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Plus Seminar in Secondary Student Teaching	3

Sequence 4 (35 crs.): 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 (12 credits):

		Credits
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>
ESC 501	Psychological Foundations of Education	3
ESC 529	Language and Literacies Acquisition in <u>Middle and High School</u> Education	3
ESC 506	<u>Teaching Students with Disabilities</u>	3

Methods of Teaching English in Middle and High School (12 credits):

Selected from:

		Credits
<u>ESC 522</u>	<u>Teaching English in Middle and High School</u>	<u>3</u>
ESC 720	Reading and Reading Materials for Adolescents	3
ESC 721	Literature for Middle and High School Students	3
ESC 724	Methods of Teaching Writing in Middle and High School	3
ESC 730	Methods of Teaching English in Middle and High School: Selected Topics	3
ESC 772	Evaluation and Assessment of Student Learning	3
ESC 725	Teaching English Grammar	3

English Electives (3 credits):

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

Master's Project (3 credits):

		Credits
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Teaching Internship (5 credits):

		Credits
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Plus Seminar in Secondary Student Teaching	3

Sequence 5: Dual Certification English Language Arts and Teaching Students with Disabilities Generalist Grades 7-12 Option (39 credits)

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.

• Foundations Core (21 credits): EDS 780 (3), EDS 712 (3), EDS 714 (3), EDS 716 (3), EDS 741 (3), EDS 743 (3), and ESC 529 (3)

• Pedagogical Core (12 credits): ESC 522 (3), ESC 724 (3), ESC 540 (3), and ESC 541 (3)

• Student Teaching (6 credits): ESC 597 (3) and ESC 613 (3)

		Credits
<u>EDS 780</u>	<u>Adolescent Development</u>	<u>3</u>
<u>EDS 712</u>	<u>The Adolescent with Disabilities</u>	<u>3</u>
<u>EDS 714</u>	<u>Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set Practicum in</u>	<u>3</u>
<u>EDS 716</u>	<u>Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities</u>	<u>3</u>
<u>EDS 741</u>	<u>Psycho-educational Evaluation of Children with Learning Problems</u>	<u>3</u>
<u>EDS 743</u>	<u>Behavioral Assessment, Management, and Change</u>	<u>3</u>
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>
<u>ESC 522</u>	<u>Teaching English in Middle and High School in Middle and High School</u>	<u>3</u>
<u>ESC 724</u>	<u>Methods of Teaching Writing in Middle and High School</u>	<u>3</u>

<u>ESC 540</u>	<u>Teaching ELA and Social Studies to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 541</u>	<u>Teaching Math and Science to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 597</u>	<u>Student Teaching in Inclusive Secondary Classrooms</u>	<u>3</u>
<u>ESC 613</u>	<u>Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms</u>	<u>3</u>

In addition to the requirements above, Sequence 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.

Sequence 6: Trans B Alternative Dual Certification in English Language Arts 7-12 and Students with Disabilities, Generalist, Grades 7-12 (42 credits)

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.

- Introductory Core (9 credits): ESC 790 (3), EDS 780 (3), and EDS 743 (3)
- Foundations Core (12 credits): EDS 714 (3), EDS 740 (3), EDS 743 (3), and ESC 529 (3)
- Pedagogical Core (15 credits): EDS 716 (3), ESC 522 (3), ESC 724 (3), ESC 540 (3), and ESC 541 (3)
- Student Teaching (6 credits): ESC 597 (3) and ESC 613 (3)

		Credits
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>
<u>EDS 780</u>	<u>Adolescent Development</u>	<u>3</u>
<u>EDS 712</u>	<u>The Adolescent with Disabilities</u>	<u>3</u>
<u>EDS 714</u>	<u>Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set</u>	<u>3</u>

<u>EDS 716</u>	<u>EDS 716: Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities</u>	<u>3</u>
<u>EDS 741</u>	<u>Psycho-educational Evaluation of Children with Learning Problems</u>	<u>3</u>
<u>EDS 743</u>	<u>Behavioral Assessment, Management, and Change</u>	<u>3</u>
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>
<u>ESC 522</u>	<u>Teaching English in Middle and High School</u>	<u>3</u>
<u>ESC 724</u>	<u>Methods of Teaching Writing in Middle and High School</u>	<u>3</u>
<u>ESC 540</u>	<u>Teaching ELA and Social Studies to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 541</u>	<u>Teaching Math and Science to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 597</u>	<u>Student Teaching in Inclusive Secondary Classrooms</u>	<u>3</u>
<u>ESC 613</u>	<u>Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms</u>	<u>3</u>

Additional Certification Requirements:

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), Teacher Performance Assessment (edTPA), 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

4. Rationale:

The new sequences remove many barriers preventing students from earning a second certification in Students with Disabilities (SWD) Generalist Grades 7-12 including significantly reducing the aggregate amount of credits and eliminates an additional semester of the student teaching experience. From the supply perspective, it most likely will become the flagship sequence because of the critical shortage of SWD teachers especially in the Bronx. From the demand side, potential candidates often ask about earning the additional certification, but few actually accomplish this goal because of the high barriers.

In Sequence 4, the addition of ESC 790 allows Lehman faculty to serve as initial teaching mentors to qualified candidates pursuing the Transitional B license rather than relying on external programming to meet the mentored teaching requirement.

In Sequences 2-4, the number of graduate credits taken in the English Department has been reduced to three credits (one course). Candidates come to our programs having already met the required number of credits in English for certification. Reducing the total number of credits for these sequences makes them more streamlined and will support recruitment efforts.

Lastly, select course titles are being updated to align with the approved course revisions. All other changes are for the sake of clarity and do not change the program:

- ESC 522 has been moved to the Methods section throughout to make the sequences more parallel. (Previously, it was listed in “Core Education” in some sequences and “Methods in others.) This change is simply for clarity and does not impact program requirements.
- ESC 722 has been removed as a Methods course offering. It has not been offered by our program for a number of years.
- We have removed redundant language about ESC 506 in Sequences 2-4. It is clear from the Admissions requirements and the sequence outlines that all require ESC 506 or its equivalent, ESC 463.
- Sequences 1-4 have been given labels for clarity (e.g. Undergraduate Education Minor Option)
- Some Admissions language has been adjusted for brevity, consistency, and clarity without changing program requirements.
- Information has also been added on additional Advanced Certificate options.

5. Date of departmental approval: 10/20/2021

**LEHMAN COLLEGE
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DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Science Education M.S.Ed. Program

Hegis Number: 0834

Program Code: 25791; 25790

Effective Term: Fall 2022

1. **Type of Change**: Additional Sequence, Degree Requirements

2. **From**:
Science Education M.S.Ed. Program

~~This program leads to a master's degree in Science Education. Upon completion of additional requirements, candidates will be eligible to receive New York State Initial Certification to teach one or more of the following sciences at the level of adolescent education (Grades 7-12): biology, chemistry, earth science, general science, and physics.~~

~~To be eligible for the Science Education Master's Program, potential students must fall into one of the following categories:~~

~~Sequence 1: For candidates who have, or are eligible for, Initial Certification in subjects other than science and who seek certification as science teachers.~~

~~Sequence 2: For candidates who have completed at least 36 credits in biology, chemistry, geology, or physics, but who lack professional education coursework and who seek Initial Certification.~~

~~Sequence 3: For candidates who hold a valid Transitional B certificate in biology, chemistry, earth science, general science, or physics, Grades 7-12, from New York State.~~

Science Education 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. For Sequence 1 admission: An undergraduate science major or the equivalent and a minor in middle and high school education or the equivalent.
5. For Sequence 2 and 3 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.

6. Satisfy appropriate voice, speech, and health standards.
7. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
8. Personal interview.
9. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level. Note: An applicant whose GRE score is lower than 1 standard deviation below the 50th percentile may be admitted to a program with the following stipulation: The candidate and advisor will prepare a retention plan to support the candidate in further developing the skills needed to meet the 50th percentile or better on a nationally normed basic skills test approved by the School of Education.

Science Education Degree Requirements

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.

Curriculum

The curriculum for each sequence is distributed in four instructional modules as follows:

Sequence 1 (~~33-36 credits~~)

Core Education Sequence (3-6 credits):

		Credits
ESC 529	Language and Literacies Acquisition in Secondary Education	3
ESC 519	Teaching Science in Middle and High School	3

ESC 519: Candidates may also be required to take based on the Program Coordinator's assessment of prior experience and qualification.

Curriculum and Instruction (12 credits):

		Credits
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 755	Teaching the Historical Development of Science Or	3

ESC 595	Internship in Classroom Teaching	4-3
	And	
ESC 611	Teaching Internship Seminar in Secondary Education	4
ESC 767	The Museum as a Resource for Teaching Science	3
ESC 770	Methods of Teaching Science in Secondary Schools: Selected Topics	4-3

ESC 767: Or equivalent.

Research and Culmination Projects (6 credits):

		Credits
ESC 705	Methods of Educational Research	3
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2
	Or	
ESC 705	Methods of Educational Research	3
	And	
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Graduate Science Content (12 credits):

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:

Biology:

		Credits
BIO 501	Topics in Genetics	4
BIO 502	Topics in Economic Botany	4

Chemistry:

		Credits
CHE 542	Advanced Inorganic Chemistry	3
CHE 544	Biochemistry	3

CHE 548	Special Topics in Modern Organic Chemistry	3
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Geology:

		Credits
GEO 501	Earth Processes	3
GEO 502	Earth History	3
GEO 503	Geologic Field Methods	3
AST 601	Astronomy of Solar Systems	4

Physics:

		Credits
PHY 601	Advanced General Physics	3
PHY 605	Physics for Teachers	4
AST 601	Astronomy of Solar Systems	4
AST 602	Stellar Astronomy	4

Sequence 2 (42-48 credits)

Core Education Sequence (18 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
	Or	
ESC 713	Restorative Practices & Restorative Justice	3
ESC 519	Teaching Science in Middle and High School	3
ESC 529	Language and Literacies Acquisition in Secondary Education	3
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching	3

Curriculum and Instruction (12 credits):

Credits

ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 536	Teaching Technology Subjects in Middle and High School	3
	Or	
ESC 537	Principles of Computer Science Education I	3
ESC 767	The Museum as a Resource for Teaching Science	3
ESC 770	Methods of Teaching Science in Secondary Schools: Selected Topics	1-3

Research and Culmination Projects (6 credits):

		Credits
ESC 705	Methods of Educational Research	3
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2
	Or	
ESC 705	Methods of Educational Research	3
	And	
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Graduate Science Content (6-12 credits):

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:

Biology:

		Credits
BIO 501	Topics in Genetics	4
BIO 502	Topics in Economic Botany	4

Chemistry:

		Credits

CHE 542	Advanced Inorganic Chemistry	3
CHE 544	Biochemistry	3
CHE 548	Special Topics in Modern Organic Chemistry	3

Geology:

		Credits
GEO 501	Earth Processes	3
GEO 502	Earth History	3
GEO 503	Geologic Field Methods	3
AST 601	Astronomy of Solar Systems	4

Physics:

		Credits
PHY 601	Advanced General Physics	3
PHY 605	Physics for Teachers	4
AST 601	Astronomy of Solar Systems	4
AST 602	Stellar Astronomy	4

Sequence 3 (37-39 credits)

Core Education Sequence (13 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 519	Teaching Science in Middle and High School	3
ESC 789	Independent Study in Curriculum Development	1-3
ESC 595	Internship in Classroom Teaching	1-3
	Or	
ESC 596	Student Teaching in the Middle and High School Grades	3

Curriculum and Instruction (12 credits):

		Credits
ESC 506	Special Needs Education in TESOL and Secondary Settings	3

ESC 536	Teaching Technology Subjects in Middle and High School	3
ESC 767	The Museum as a Resource for Teaching Science	3
ESC 770	Methods of Teaching Science in Secondary Schools: Selected Topics	1-3

ESC 536: Or equivalent.

ESC 767: Or equivalent.

Research and Culmination Projects (~~3 credits~~):

		Credits
ESC 705	Methods of Educational Research	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Graduate Science Content (6-8 credits):

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:

Biology:

		Credits
BIO 611	Problems in Microbiology	3
BIO 612	Plant Growth and Development	4
BIO 618	Problems in Ecology	4

Chemistry:

		Credits
CHE 542	Advanced Inorganic Chemistry	3
CHE 544	Biochemistry	3
CHE 548	Special Topics in Modern Organic Chemistry	3

Geology:

		Credits
GEO 501	Earth Processes	3
GEO 502	Earth History	3
GEO 503	Geologic Field Methods	3

Physics:

		Credits
PHY 601	Advanced General Physics	3
AST 601	Astronomy of Solar Systems	4
AST 602	Stellar Astronomy	4

General Science:

		Credits
BIO 618	Problems in Ecology	4
CHE 542	Advanced Inorganic Chemistry	3
GEO 501	Earth Processes	3
PHY 601	Advanced General Physics	3

3. To: Science Education M.S.Ed. Program

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 (SWD) 7-12 Generalist.

Sequence 1 is for candidates with an undergraduate science major or the equivalent and who have, or are eligible for, Initial Certification. Sequence 2 is for candidates with an undergraduate science major but who lack professional education coursework and who seek initial certification. Sequence 3 is for candidates with an undergraduate science major who previously completed an education minor or equivalent courses and are seeking initial certification. Sequence 4 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 is for candidates with an undergraduate science major seeking alternative Trans B certification in Science Education 7-12. Sequence 6 is for applications seeking alternative Trans B dual certification in Science Education 7-12 and SWD 7-12 Generalist.

Science Education 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. Satisfy appropriate voice, speech, and health standards.
7. Submit two letters of recommendation, at least one of which is from a college or university science instructor.
8. Personal interview.
9. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level. Note: An applicant whose GRE score is lower than 1 standard deviation below the 50th percentile may be admitted to a program with the following stipulation: The candidate and advisor will prepare a retention plan to support the candidate in further developing the skills needed to meet the 50th percentile or better on a nationally normed basic skills test approved by the School of Education.

Science Education Degree Requirements

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.

Curriculum

The curriculum for each sequence is distributed in four instructional modules as follows:

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

Core Education Sequence (3-6 credits)

Curriculum and Instruction (11-12 credits)

Research and Culmination Projects (6 credits)

Graduate Science Content (12 credits)

Core Education Sequence (3-6 credits):

		Credits
ESC 529	Language and Literacies Acquisition in <u>Middle and High School</u> Education	3
ESC 519	Teaching Science in Middle and High School	3

ESC 519: Candidates may also be required to take based on the Program Coordinator's assessment of prior experience and qualification.

Curriculum and Instruction (11-12 credits):

		Credits
ESC 506	<u>Teaching Students with Disabilities</u>	3
<u>ESC 713</u>	<u>Restorative Practices & Restorative Justice</u>	3
	Or	
ESC 595	Internship in Classroom Teaching	<u>2</u>
ESC 767	<u>An introduction to the use of the museum as a resource for teaching and learning science</u>	3
ESC 770	Methods of Teaching Science in Secondary Schools: Selected Topics	<u>3</u>

ESC 767: Or equivalent.

Research and Culmination Projects (6 credits):

		Credits
ESC 705	Methods of Educational Research	3
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2
	Or	
ESC 705	Methods of Educational Research	3
	And	
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Graduate Science Content (12 credits):

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:

Biology:

		Credits
BIO 501	Topics in Genetics	4
BIO 502	Topics in Economic Botany	4

Chemistry:

		Credits
CHE 542	Advanced Inorganic Chemistry	3
CHE 544	Biochemistry	3
CHE 548	Special Topics in Modern Organic Chemistry	3

Geology:

		Credits
GEO 501	Earth Processes	3
GEO 502	Earth History	3
GEO 503	Geologic Field Methods	3
AST 601	Astronomy of Solar Systems	4

Physics:

		Credits
PHY 601	Advanced General Physics	3
PHY 605	Physics for Teachers	4
AST 601	Astronomy of Solar Systems	4
AST 602	Stellar Astronomy	4

Computer Science

		Credits
<u>CMP 567</u>	<u>Programming Methods I for Educators</u>	<u>3</u>
<u>CMP 568</u>	<u>Programming Methods II for Educators</u>	<u>3</u>
<u>CMP 569</u>	<u>Data Structures and Algorithms for Educators</u>	<u>3</u>
<u>CMP 566</u>	<u>Computer Thinking for Educators</u>	<u>3</u>

Sequence 2 (42-48 credits): 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.

Core Education Sequence (18 credits)

Curriculum and Instruction (12 credits)

Research and Culmination Projects (6 credits)

Graduate Science Content (6-12 credits)

Core Education Sequence (18 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
	Or	
ESC 713	Restorative Practices & Restorative Justice	3
ESC 519	Teaching Science in Middle and High School	3
ESC 529	Language and Literacies Acquisition in <u>Middle and High School</u> Education	3
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching	3

Curriculum and Instruction (12 credits):

		Credits
ESC 506	<u>Teaching Students with Disabilities</u>	3
ESC 536	Teaching Technology Subjects in Middle and High School	3
	Or	
ESC 537	Principles of Computer Science Education I	3

ESC 767	<u>An introduction to the use of the museum as a resource for teaching and learning science</u>	3
ESC 770	Methods of Teaching Science in Secondary Schools: Selected Topics	<u>3</u>

Research and Culmination Projects (6 credits):

		Credits
ESC 705	Methods of Educational Research	3
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II Or	2
ESC 705	Methods of Educational Research And	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Graduate Science Content (6-12 credits):

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:

Biology:

		Credits
BIO 501	Topics in Genetics	4
BIO 502	Topics in Economic Botany	4

Chemistry:

		Credits
CHE 542	Advanced Inorganic Chemistry	3
CHE 544	Biochemistry	3
CHE 548	Special Topics in Modern Organic Chemistry	3

Geology:

		Credits
GEO 501	Earth Processes	3
GEO 502	Earth History	3

GEO 503	Geologic Field Methods	3
AST 601	Astronomy of Solar Systems	4
Physics:		
		Credits
PHY 601	Advanced General Physics	3
PHY 605	Physics for Teachers	4
AST 601	Astronomy of Solar Systems	4
AST 602	Stellar Astronomy	4

Computer Science

		Credits
<u>CMP 567</u>	<u>Programming Methods I for Educators</u>	<u>3</u>
<u>CMP 568</u>	<u>Programming Methods II for Educators</u>	<u>3</u>
<u>CMP 569</u>	<u>Data Structures and Algorithms for Educators</u>	<u>3</u>
<u>CMP 566</u>	<u>Computer Thinking for Educators</u>	<u>3</u>

Sequence 3 (31-35 credits). *For candidates with an undergraduate science major who previously completed an education minor or equivalent courses and are seeking initial certification.*

Core Education Sequence (10-12 credits)Curriculum and Instruction (9 credits)Research and Culmination Projects (6 credits)Graduate Science Content (6-8 credits)

Core Education Sequence (10-12 credits):

		Credits
ESC 519	Teaching Science in Middle and High School	3
ESC 789	Independent Study in Curriculum Development	1-3
ESC 596	<u>Student Teaching in the Middle and High School Grades</u>	<u>3</u>
<u>ESC 612</u>	<u>Seminar in Secondary Student Teaching</u>	<u>3</u>

Curriculum and Instruction (9 credits):

		Credits
ESC 536	Teaching Technology Subjects in Middle and High School	3
ESC 767	<u>An introduction to the use of the museum as a resource for teaching and learning science</u>	3
ESC 770	Methods of Teaching Science in Secondary Schools: Selected Topics	<u>3</u>

ESC 536: Or equivalent.

ESC 767: Or equivalent.

Research and Culmination Projects (6 credits):

		Credits
ESC 705	Methods of Educational Research	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3

Graduate Science Content (6-8 credits):

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:

Biology:

		Credits
BIO 611	Problems in Microbiology	3
BIO 612	Plant Growth and Development	4
BIO 618	Problems in Ecology	4

Chemistry:

		Credits
CHE 542	Advanced Inorganic Chemistry	3
CHE 544	Biochemistry	3
CHE 548	Special Topics in Modern Organic Chemistry	3

Geology:

		Credits
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GEO 501	Earth Processes	3
GEO 502	Earth History	3
GEO 503	Geologic Field Methods	3

Physics:

		Credits
PHY 601	Advanced General Physics	3
AST 601	Astronomy of Solar Systems	4
AST 602	Stellar Astronomy	4

General Science:

		Credits
BIO 618	Problems in Ecology	4
CHE 542	Advanced Inorganic Chemistry	3
GEO 501	Earth Processes	3
PHY 601	Advanced General Physics	3

Computer Science

		Credits
<u>CMP 567</u>	<u>Programming Methods I for Educators</u>	<u>3</u>
<u>CMP 568</u>	<u>Programming Methods II for Educators</u>	<u>3</u>
<u>CMP 569</u>	<u>Data Structures and Algorithms for Educators</u>	<u>3</u>
<u>CMP 566</u>	<u>Computer Thinking for Educators</u>	<u>3</u>

Sequence 4: Dual Certification Science Education and Teaching Students with Disabilities Generalist Grades 7-12 (43-45 credits): 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.

Foundations Core (21 credits)

Curriculum and Instruction (10-12 credits)

Student Teaching (6 credits)

Graduate Science Content (6 credits)

Foundations Core (21 credits):

Credits

<u>EDS 780</u>	<u>Introduction to the Learning Sciences</u>	<u>3</u>
<u>EDS 712</u>	<u>The Adolescent with Disabilities</u>	<u>3</u>
<u>EDS 714</u>	<u>Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set</u>	<u>3</u>
<u>EDS 716</u>	<u>Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities</u>	<u>3</u>
<u>EDS 741</u>	<u>Psycho-educational Evaluation of Children with Learning Problems</u>	<u>3</u>
<u>EDS 743</u>	<u>Behavioral Assessment, Management, and Change</u>	<u>3</u>
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>

Curriculum and Instruction (12 credits):

		Credits
<u>ESC 519</u>	<u>Teaching Science in Middle and High School</u>	<u>3</u>
<u>ESC 770</u>	<u>Methods of Teaching Science in Secondary Schools: Selected Topics</u>	<u>1-3</u>
<u>ESC 540</u>	<u>Teaching ELA and Social Studies to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 541</u>	<u>Teaching Math and Science to Diverse Students in Middle and High School</u>	<u>3</u>

Student Teaching (6 credits):

<u>ESC 597</u>	<u>Student Teaching in Inclusive Secondary Classrooms</u>
<u>ESC 613</u>	<u>Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms</u>

Graduate Science Content (6 credits):

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:

Biology:

Credits

<u>BIO 501</u>	<u>Topics in Genetics</u>	<u>4</u>
<u>BIO 502</u>	<u>Topics in Economic Botany</u>	<u>4</u>
<u>Chemistry:</u>		
		Credits
<u>CHE 542</u>	<u>Advanced Inorganic Chemistry</u>	<u>3</u>
<u>CHE 544</u>	<u>Biochemistry</u>	<u>3</u>
<u>CHE 548</u>	<u>Special Topics in Modern Organic Chemistry</u>	<u>3</u>
<u>Geology:</u>		
		Credits
<u>GEO 501</u>	<u>Earth Processes</u>	<u>3</u>
<u>GEO 502</u>	<u>Earth History</u>	<u>3</u>
<u>GEO 503</u>	<u>Geologic Field Methods</u>	<u>3</u>
<u>AST 601</u>	<u>Astronomy of Solar Systems</u>	<u>4</u>
<u>Physics:</u>		
		Credits
<u>PHY 601</u>	<u>Advanced General Physics</u>	<u>3</u>
<u>PHY 605</u>	<u>Physics for Teachers</u>	<u>4</u>
<u>AST 601</u>	<u>Astronomy of Solar Systems</u>	<u>4</u>
<u>AST 602</u>	<u>Stellar Astronomy</u>	<u>4</u>

Computer Science

		Credits
<u>CMP 567</u>	<u>Programming Methods I for Educators</u>	<u>3</u>
<u>CMP 568</u>	<u>Programming Methods II for Educators</u>	<u>3</u>
<u>CMP 569</u>	<u>Data Structures and Algorithms for Educators</u>	<u>3</u>
<u>CMP 566</u>	<u>Computer Thinking for Educators</u>	<u>3</u>

Sequence 5: Trans B Alternative Certification in Science Education 7-12 Sequence (36-41 credits). *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.*

Core Education Sequence (15-18 credits)

Curriculum and Instruction (12 credits)

Research and Culmination Projects (3 credits)

Graduate Science Content (6-8 credits)

Core Education Sequence (15-18 credits):

		Credits
<u>ESC 501</u>	<u>Psychological Foundations of Education</u>	<u>3</u>
<u>ESC 502</u>	<u>Historical Foundations of Education: A Multicultural Perspective</u>	<u>3</u>
	or	
<u>ESC 713</u>	<u>Restorative Practices & Restorative Justice</u>	<u>3</u>
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>
<u>ESC 519</u>	<u>Teaching Science in Middle and High School</u>	<u>3</u>
<u>ESC 789</u>	<u>Independent Study in Curriculum Development</u>	<u>1-3</u>
<u>ESC 595</u>	<u>Internship in Classroom Teaching</u>	<u>2</u>
	Or	
<u>ESC 596</u>	<u>Student Teaching in the Middle and High School Grades</u>	<u>3</u>

Curriculum and Instruction (12 credits):

		Credits
<u>ESC 506</u>	<u>Teaching Students with Disabilities</u>	<u>3</u>
<u>ESC 536</u>	<u>Teaching Technology Subjects in Middle and High School</u>	<u>3</u>
<u>ESC 767</u>	<u>An introduction to the use of the museum as a resource for teaching and learning science</u>	<u>3</u>

<u>ESC 770</u>	<u>Methods of Teaching Science in Secondary Schools: Selected Topics</u>	<u>3</u>
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ESC 536: Or equivalent.

ESC 767: Or equivalent.

Research and Culmination Projects (3 credits):

		Credits
ESC 705	<u>Methods of Educational Research</u>	<u>3</u>

Graduate Science Content (6-8 credits):

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:

Biology:

		Credits
<u>BIO 611</u>	<u>Problems in Microbiology</u>	<u>3</u>
<u>BIO 612</u>	<u>Plant Growth and Development</u>	<u>4</u>
<u>BIO 618</u>	<u>Problems in Ecology</u>	<u>4</u>

Chemistry:

		Credits
<u>CHE 542</u>	<u>Advanced Inorganic Chemistry</u>	<u>3</u>
<u>CHE 544</u>	<u>Biochemistry</u>	<u>3</u>
<u>CHE 548</u>	<u>Special Topics in Modern Organic Chemistry</u>	<u>3</u>

Geology:

		Credits
<u>GEO 501</u>	<u>Earth Processes</u>	<u>3</u>
<u>GEO 502</u>	<u>Earth History</u>	<u>3</u>
<u>GEO 503</u>	<u>Geologic Field Methods</u>	<u>3</u>

Physics:

		Credits
<u>PHY 601</u>	<u>Advanced General Physics</u>	<u>3</u>
<u>AST 601</u>	<u>Astronomy of Solar Systems</u>	<u>4</u>
<u>AST 602</u>	<u>Stellar Astronomy</u>	<u>4</u>

General Science:

		Credits
<u>BIO 618</u>	<u>Problems in Ecology</u>	<u>4</u>
<u>CHE 542</u>	<u>Advanced Inorganic Chemistry</u>	<u>3</u>

<u>GEO 501</u>	<u>Earth Processes</u>	<u>3</u>
<u>PHY 601</u>	<u>Advanced General Physics</u>	<u>3</u>

Computer Science

		Credits
<u>CMP 567</u>	<u>Programming Methods I for Educators</u>	<u>3</u>
<u>CMP 568</u>	<u>Programming Methods II for Educators</u>	<u>3</u>
<u>CMP 569</u>	<u>Data Structures and Algorithms for Educators</u>	<u>3</u>
<u>CMP 566</u>	<u>Computer Thinking for Educators</u>	<u>3</u>

Sequence 6: Trans B Alternative Dual Certification in Science Education 7-12 and Students with Disabilities, Generalist. Grades 7-12 (48-50 credits)

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.

Introductory Core (9 credits)

Foundations Core (12 credits)

Pedagogical Core (15 credits)

Student Teaching (6 credits)

Graduate Science Content (6 credits)

Introductory Core (9 credits)

		Credits
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>
<u>EDS 780</u>	<u>Adolescent Development</u>	<u>3</u>
<u>EDS 743</u>	<u>Behavioral Assessment, Management and Change</u>	<u>3</u>

Foundations Core (12 credits)

		Credits
<u>EDS 714</u>	<u>Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents w/Disabilities Inclusive Set</u>	<u>3</u>

<u>EDS 741</u>	<u>Psycho-educational Evaluation of Children with Learning Problems</u>	<u>3</u>
<u>EDS 712</u>	<u>The Adolescent with Disabilities</u>	
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>

Pedagogical Core (15 credits)

		Credits
<u>EDS 716</u>	<u>Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities</u>	<u>3</u>
<u>ESC 540</u>	<u>Teaching ELA and Social Studies to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 541</u>	<u>Teaching Math and Science to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 519</u>	<u>Methods of Teaching Science in Secondary Schools: Selected Topics</u>	<u>3</u>
<u>ESC 770</u>	<u>Methods of Teaching Science in Secondary Schools: Selected Topics</u>	<u>3</u>

Student Teaching (6 credits)

		Credits
<u>ESC 597</u>	<u>Student Teaching in Inclusive Secondary Classrooms</u>	<u>3</u>
<u>ESC 613</u>	<u>Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms</u>	<u>3</u>

Graduate Science Content (6-8 credits):

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:

Biology:

		Credits
<u>BIO 501</u>	<u>Topics in Genetics</u>	<u>4</u>
<u>BIO 502</u>	<u>Topics in Economic Botany</u>	<u>4</u>

Chemistry:

		Credits
<u>CHE 542</u>	<u>Advanced Inorganic Chemistry</u>	<u>3</u>
<u>CHE 544</u>	<u>Biochemistry</u>	<u>3</u>
<u>CHE 548</u>	<u>Special Topics in Modern Organic Chemistry</u>	<u>3</u>

Geology:

		Credits
<u>GEO 501</u>	<u>Earth Processes</u>	<u>3</u>
<u>GEO 502</u>	<u>Earth History</u>	<u>3</u>
<u>GEO 503</u>	<u>Geologic Field Methods</u>	<u>3</u>
<u>AST 601</u>	<u>Astronomy of Solar Systems</u>	<u>4</u>

Physics:

		Credits
<u>PHY 601</u>	<u>Advanced General Physics</u>	<u>3</u>
<u>PHY 605</u>	<u>Physics for Teachers</u>	<u>4</u>
<u>AST 601</u>	<u>Astronomy of Solar Systems</u>	<u>4</u>
<u>AST 602</u>	<u>Stellar Astronomy</u>	<u>4</u>

Computer Science

		Credits
<u>CMP 567</u>	<u>Programming Methods I for Educators</u>	<u>3</u>
<u>CMP 568</u>	<u>Programming Methods II for Educators</u>	<u>3</u>
<u>CMP 569</u>	<u>Data Structures and Algorithms for Educators</u>	<u>3</u>
<u>CMP 566</u>	<u>Computer Thinking for Educators</u>	<u>3</u>

4. Rationale:

The new sequences remove many barriers preventing students from earning a second certification in Students with Disabilities (SWD) Generalist Grades 7-12 including significantly reducing the aggregate amount of credits and eliminates an additional semester of the student teaching experience. From the supply perspective, it most likely will become the flagship sequence because of the critical shortage of SWD teachers especially in the Bronx. From the demand side, potential candidates often ask about earning the additional certification, but few actually accomplish this goal because of the high barriers.

Sequence 3 was revised to provide a pathway for initial certification for undergraduate science majors who previously completed an education minor or equivalent courses.

Four computer science courses were added as electives. Faculty members are collaborating on a Certificate in Computer Science Education that ultimately will be available to master's degree students.

Lastly, select course titles are being updated to align with the approved course revisions.

5. Date of departmental approval: 10/20/2021

**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 Education, M.S.Ed. Program
Hegis Number: 1701.01; 0899.50
Program Code: 25827; 25826
Effective Term: Fall 2022

1. **Type of Change:** Admission requirements and graduate bulletin language, and additional sequence

2. **From:**

Mathematics Education, ~~Middle Childhood Education (5-9) or Adolescent Education (7-12)~~ M.S.Ed. Program

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.

~~A. To be eligible for the Master's in Mathematics Education for Grades 5-9, candidates must fall into one of the following categories:~~

Sequence 1 (38-42 credits). For liberal arts and sciences graduates who have completed 18 credits in mathematics, including Calculus I and Calculus II, but ~~who~~ lack professional education coursework.

Sequence 2 (37-38 credits). For ~~teachers who hold a Transitional B certificate in Mathematics from New York State through special CUNY and NYCDOE programs.~~

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. 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.
- ~~3. For Sequence 2, must hold a valid Transitional B Certificate from NYSED.~~
- ~~4. Submission of scores on the New York State Content Specialty Test (CST) in Mathematics.~~
5. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
6. Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.
7. A 500 word essay on career goals.
8. A personal interview.

~~Mathematics Education, Middle Childhood Education (5-9) or Adolescent Education (7-12) 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 3: 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~~
- ~~3. For Sequence 4: Mathematics major~~
- ~~4. For Sequence 5: Mathematics major and NYS Transitional B Certificate~~
- ~~5. Submit scores on the New York State Content Specialty Test (CST) in Mathematics.~~
- ~~6. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.~~
- ~~7. Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.~~
- ~~8. A 500-word essay on career goals.~~
- ~~9. A personal interview.~~

~~Middle Childhood Education Degree Requirements~~

Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their semester of attendance. Students must complete one of the ~~two~~ sequences outlined below.

~~Sequence 1. (1) 33 credits of prescribed course work; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.~~

~~Sequence 2. (1) 33 credits of prescribed course work; (2) 2 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.~~

~~Middle Childhood Education Overview of the Program~~

~~Sequence 1 students must successfully complete the following:~~

- ~~• 15-18 credits of Core Education courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework.~~
- ~~• 9 credits in pedagogical content in mathematics education.~~
- ~~• 12 credits in mathematics.~~
- ~~• 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.~~

~~Sequence 2 (Transitional B-Grades 5-9) students must successfully complete the following:~~

- ~~• 14 credits of Core Education Courses, including 2 credits of supervised fieldwork and 3 credits of special education coursework.~~
- ~~• 9 credits in pedagogical content in mathematics education.~~
- ~~• 12 credits in mathematics.~~

- ~~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.~~

Curriculum

Sequence 1 (~~Grades 5-9~~) 38-42 Credits

I. Core Education Courses: (17-18 credits)

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
	And	
ESC 612	Seminar in Secondary Student Teaching	3
	Or	
ESC 596	Student Teaching in the Middle and High School Grades	3
	And	
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (9 credits)

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3

III. Mathematics (12 credits)

Credits

MAT 601	Secondary School Mathematics from an Advanced Standpoint	3
MAT 602	Introduction to Number Theory and Modern Algebra I	3
MAT 655	Exploring Mathematics Using Technology	2
MAT 661	History of Mathematics	4

IV. Culminating Experience (0-3 credits)

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2
	Or	
	Comprehensive Examination	0

Sequence 2 (Transitional B Sequence for Grades 5-9) 37-38 credits**I. Core Education Courses: (16 credits)**

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (9 credits)

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3

III. Mathematics (12 credits)

		Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint	3
MAT 602	Introduction to Number Theory and Modern Algebra I	3
MAT 655	Exploring Mathematics Using Technology	2
MAT 661	History of Mathematics	4

IV. Culminating Experience (0-3 credits)

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2
	Or	
	Comprehensive Examination	0

~~Middle Childhood Education Continuation Requirements~~

~~Students must maintain a 3.0 Grade Point Average throughout the course of study.~~

~~B. To be eligible for the Master's in Mathematics Education for Grades 7-12, candidates must fall into one of the following categories:~~

~~**Sequence 3 (44-48 credits).** For liberal arts and sciences graduates 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.~~

~~**Sequence 4 (38-42 credits).** For candidates who hold a bachelor degree in mathematics only, but who lack professional education coursework.~~

~~**Sequence 5 (37-38 credits).** For teachers who hold a bachelor's degree in mathematics and a Transitional B Certificate in Mathematics from New York State through special CUNY and NYCDOE programs.~~

~~Middle Childhood Education 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.

 - ~~o For Sequence 3: 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;~~
 - ~~o For Sequence 4: Mathematics major;~~
 - ~~o For Sequence 5: Mathematics major AND NYS Transitional B Certificate.~~~~

3. ~~Submit scores on the New York State Content Specialty Test (C.S.T.) in Mathematics.~~
4. ~~If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.~~
5. ~~Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.~~
6. ~~A 500-word essay on career goals.~~
7. ~~A personal interview.~~

Adolescent Education Degree Requirements (Grades 7-12)

~~Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their first semester of attendance. Students must complete one of the three sequences outlined below:~~

~~Sequence 3. (1) 39 credits of prescribed course work including 3 credits of special education coursework; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.~~

~~Sequence 4. (1) 33 credits of prescribed course work including 3 credits of special education coursework; (2) 3-6 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.~~

~~Sequence 5. (1) 33 credits of prescribed course work including 3 credits of special education coursework; (2) 2 credits of supervised fieldwork; (3) A comprehensive examination OR research project (3); and (4) Maintain B average.~~

Adolescent Education Program Overview

Sequence 3 (Grades 7-12)

~~Students must successfully complete the following:~~

- ~~17-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework.~~
- ~~12 credits in pedagogical content in mathematics education.~~
- ~~15 credits in mathematics. Students who lack History of Mathematics as a prerequisite must register for MAT 661.~~
- ~~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.~~

~~**Note:** Students who lack full-time experience as a mathematics teacher in grades 7-12 prior to completion of the program must register for 6 credits of supervised student teaching in lieu of the 3 credits of supervised fieldwork.~~

Sequence 4 (Math majors who do NOT hold a NYS Transitional B Certificate, 7-12)

~~Students must successfully complete the following:~~

- ~~17-18 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework;~~
- ~~12 credits in pedagogical content in mathematics education.~~
- ~~9 credits in mathematics electives to be chosen in consultation with a program adviser.~~

- ~~A comprehensive written examination or research project is required 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. **Note:** Students who lack full-time experience as a mathematics teacher in grades 7-12 prior to completion of the program must register for 6 credits of supervised student teaching in lieu of the 3 credits of supervised fieldwork.~~

~~Sequence 5 (Math Majors who hold a NYS Transitional B Certificate, 7-12)~~

~~Students must successfully complete the following:~~

- ~~16 credits of Core Education Courses, including 3-6 credits of supervised fieldwork and 3 credits of special education coursework;~~
- ~~12 credits in pedagogical content in mathematics education.~~
- ~~9 credits in mathematics electives to be chosen in consultation with a program adviser.~~
- ~~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.~~

~~Adolescent Education Curriculum~~

~~Sequence 3 (Grades 7-12)~~

~~44-48 credits~~

I. Core Education Courses (17-18 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
	And	
ESC 612	Seminar in Secondary Student Teaching	3
	Or	
ESC 596	Student Teaching in the Middle and High School Grades	3
	And	
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (12 credits):

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

III. Mathematics (15 credits):

		Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint	3
MAT 604	Application of the Real and Complex Number Systems	3
MAT 637	Topics in Discrete Mathematics	4
MAT 655	Exploring Mathematics Using Technology	2
MAT 615	Modern Algebra	4

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2

Sequence 4 (Grades 7-12)

~~38-42~~ credits

I. Core Education Courses: (17-18 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 532	Teaching Mathematics in Middle and High School	3

ESC 595	Internship in Classroom Teaching	1-3
	And	
ESC 612	Seminar in Secondary Student Teaching	3
	Or	
ESC 596	Student Teaching in the Middle and High School Grades	3
	And	
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (12 credits):

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

III. Mathematics (9 credits):

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

IV. Culminating Experience (0-3 credits).

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2

~~Sequence 5 (Math Majors who are eligible for a NYS Transitional B Certificate, 7-12)~~

~~37-38 credits~~

I. Core Education Courses: (16 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3

ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (12 credits):

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

III. Mathematics (9 credits):

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

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2

**Sequence 6 (Non-Math Majors who are eligible for a NYS Transitional B
Certificate Grades 7-12)**
(38-41 credits)

I. Core Education Courses (11 credits):

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3

II. Pedagogical Content in Mathematics Education (12 credits):

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

III. Mathematics (15 credits):

		Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint	3
MAT 604	Application of the Real and Complex Number Systems	3
MAT 637	Topics in Discrete Mathematics	4
MAT 655	Exploring Mathematics Using Technology	2
MAT 615	Modern Algebra	4

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination.

Students who elect to write a Master's thesis must concurrently enroll in:

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2

Extension to the New York State Initial Certificate to Teach Mathematics in Grades 5-9 (Middle Childhood Education)**Extension Program in Mathematics Education (17 credits)**

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).

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).
- Present coursework in Calculus I, Calculus II, Linear Algebra, Statistics, and History of Mathematics with a GPA of 3.0 or better.

- ~~Submit scores on the NYS Content Specialty (CST) Test in Mathematics.~~
- 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.

Continuation Requirements

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

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.

Overview of the Program

Curriculum

Curriculum and Instruction (6 credits):

		Credits
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

Mathematics Content (11 credits):

		Credits
MAT 604	Application of the Real and Complex Number Systems	3
MAT 615	Modern Algebra	4
MAT 637	Topics in Discrete Mathematics	4

3. To:

Mathematics Education M.S.Ed. Program

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 8 sequences based on their qualifications:

Sequence 1 (37 - 42 credits). For liberal arts and sciences graduates who have completed 18 credits in mathematics, including Calculus I and Calculus II, but lack professional education coursework, who seek certification as mathematics teachers in grades 5-9.

Sequence 2 (40 - 45 credits). For those eligible for a Transitional B certificate in Mathematics from New York State, in grades 5-9.

Sequence 3 (44 – 49 credits). For liberal arts and sciences graduates 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 and seek certification as mathematics teachers in grades 7-12.

Sequence 4 (37 - 42 credits). For candidates who hold a bachelor's degree in mathematics only, but lack professional education coursework, who seek certification as mathematics teachers in grades 7-12.

Sequence 5 (40 – 45 credits). For those who hold a bachelor's degree in mathematics and are eligible for a Transitional B Certificate in Mathematics from New York State, who seek certification in grades 7-12.

Sequence 6 (47 – 52 credits). For non-mathematics majors who are eligible for a Transitional B Certificate in Mathematics from New York State, who seek certification in grades 7-12.

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

Sequence 8 (45 credits). For 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.

Mathematics Education 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. 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.
3. For Sequence 2, Must be eligible for a Transitional B Certificate from NYSED
4. For Sequence 3, 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
5. For Sequence 4, Mathematics major
6. For Sequence 5: Mathematics major and eligible for NYS Transitional B Certificate
7. For Sequence 6: Must be eligible for a Transitional B Certificate from NYSED, 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
8. For Sequence 7: Mathematics major and Mathematics coursework to include Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics.
 9. For Sequence 8: Must be eligible for a Transitional B Certificate from NYSED; and Mathematics major and Mathematics coursework to include Statistics, Calculus I, Calculus II, Calculus III, Computer Methods, Linear Algebra, Probability, Geometry and History of Mathematics.
 10. If conditionally admitted, make up requirements starting in the first semester and finishing in no more than three consecutive semesters.
 11. Two letters of recommendation, at least one of which is from a college or university instructor of mathematics.
 12. A 500-word essay on career goals.
 13. A personal interview.

Mathematics Education Degree Requirements

Students must consult with a Mathematics Education adviser before starting their master's program and must plan their overall program with the adviser during their semester of attendance. Students must maintain a 3.0 Grade Point Average throughout the course of study and complete one of the sequences outlined below.

Curriculum

Sequence 1 (37 – 42 credits)

I. Core Education Courses: (16 - 18 credits)

	Credits
ESC 501 Psychological Foundations of Education	3
ESC 502 Historical Foundations of Education: A Multicultural Perspective	3
ESC 506 <u>Teaching Students with Disabilities</u>	3
ESC 532 Teaching Mathematics in Middle and High School	3
ESC 595 Internship in Classroom Teaching	1-3
And	
ESC 612 Seminar in Secondary Student Teaching	3
Or	
ESC 596 Student Teaching in the Middle and High School Grades	3
And	
ESC 612 Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (9 credits)

	Credits
ESC 740 Teaching Mathematics in Grades 7-10	3
ESC 742 Research in Mathematics Education	3

ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
III. Mathematics (12 credits)		
		Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint	3
MAT 602	Introduction to Number Theory and Modern Algebra I	3
MAT 655	Exploring Mathematics Using Technology	2
MAT 661	History of Mathematics	4
IV. Culminating Experience (0-3 credits)		
		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2
	Or	
	Comprehensive Examination	0
Sequence 2 (Transitional B Sequence for Grades 5-9) <u>40 - 45</u> credits		
I. Core Education Courses: (<u>19 - 21</u> credits)		
		Credits
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	<u>Teaching Students with Disabilities</u>	3
ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Seminar in Secondary Student Teaching	3
II. Pedagogical Content in Mathematics Education (9 credits)		
		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3

ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3

III. Mathematics (12 credits)

		Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint	3
MAT 602	Introduction to Number Theory and Modern Algebra I	3
MAT 655	Exploring Mathematics Using Technology	2
MAT 661	History of Mathematics	4

IV. Culminating Experience (0-3 credits)

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2
	Or	
	Comprehensive Examination	0

Sequence 3 (44- 49 credits)**I. Core Education Courses (16 – 18 credits):**

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	<u>Teaching Students with Disabilities</u>	3
ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
	And	
ESC 612	Seminar in Secondary Student Teaching	3
	Or	
ESC 596	Student Teaching in the Middle and High School Grades	3

	And	
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (12 credits):

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

III. Mathematics (16 credits):

		Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint	3
MAT 604	Application of the Real and Complex Number Systems	3
MAT 637	Topics in Discrete Mathematics	4
MAT 655	Exploring Mathematics Using Technology	2
MAT 615	Modern Algebra	4

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2

Sequence 4 (37 – 42 credits)**I. Core Education Courses: (16 – 18 credits):**

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	<u>Teaching Students with Disabilities</u>	3

ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
	And	
ESC 612	Seminar in Secondary Student Teaching	3
	Or	
ESC 596	Student Teaching in the Middle and High School Grades	3
	And	
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (12 credits):

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

III. Mathematics (9 credits):

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

IV. Culminating Experience (0-3 credits).

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2

Sequence 5 (40 - 45 credits)**I. Core Education Courses: (19 – 21 credits):**

		Credits
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>
ESC 501	Psychological Foundations of Education	3

ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	<u>Teaching Students with Disabilities</u>	3
ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (12 credits):

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

III. Mathematics (9 credits):

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

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination. Students who elect to write a Master's thesis must concurrently enroll in:

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2

Sequence 6 (47 – 52 credits)**I. Core Education Courses (19 - 21 credits):**

		Credits
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 506	<u>Teaching Students with Disabilities</u>	3

ESC 532	Teaching Mathematics in Middle and High School	3
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Seminar in Secondary Student Teaching	3

II. Pedagogical Content in Mathematics Education (12 credits):

		Credits
ESC 740	Teaching Mathematics in Grades 7-10	3
ESC 742	Research in Mathematics Education	3
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3
ESC 749	Teaching Mathematics in Grades 11 and 12	3

III. Mathematics (16 credits):

		Credits
MAT 601	Secondary School Mathematics from an Advanced Standpoint	3
MAT 604	Application of the Real and Complex Number Systems	3
MAT 637	Topics in Discrete Mathematics	4
MAT 655	Exploring Mathematics Using Technology	2
MAT 615	Modern Algebra	4

IV. Culminating Experience (0-3 credits):

Research project or comprehensive examination.

Students who elect to write a Master's thesis must concurrently enroll in:

		Credits
ESC 706	Project Seminar I	1
ESC 707	Project Seminar II	2

Sequence 7: Dual Certification in Mathematics Education and Teaching Students with Disabilities Generalist Grades 7-12 Option (42 credits)

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.

Degree Requirements

Foundations Core (21 credits): EDS 780 (3), EDS 712 (3), EDS 714 (3), EDS 716 (3), EDS 741 (3), EDS 743 (3), and ESC 529 (3)

Pedagogical Core (15 credits): ESC 740 (3), ESC 748 (3), ESC 749 (3) ESC 540 (3), and ESC 541 (3)

Student Teaching (6 credits): ESC 597 (3) and ESC 613 (3)

Course		Credits	
<u>EDS 780</u>	<u>Adolescent Development</u>	<u>3</u>	
<u>EDS 712</u>	<u>The Adolescent with Disabilities</u>	<u>3</u>	
<u>EDS 714</u>	<u>Curr & Instructional Pract Culturally & Linguistically Diverse Adolescents w/Disabilities Inclusive Set</u>	<u>3</u>	
<u>EDS 716</u>	<u>Practicum in Curriculum & Instruction for Culturally & Linguistically Diverse Adolescents w/disabilities</u>	<u>3</u>	
<u>EDS 741</u>	<u>Psycho-educational Evaluation of Children with Learning Problems</u>	<u>3</u>	
<u>EDS 743</u>	<u>Behavioral Assessment, Management, and Change</u>	<u>3</u>	
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>	
<u>ESC 740</u>	<u>Teaching Mathematics in Grades 7 - 10</u>	<u>3</u>	
<u>ESC 748</u>	<u>Teaching Problem solving in Math in Middle and High School</u>	<u>3</u>	
<u>ESC 749</u>	<u>Teaching Mathematics in Grades 11 and 12</u>	<u>3</u>	
<u>ESC 540</u>	<u>Teaching ELA and Social Studies to Diverse Students in Middle and High School</u>	<u>3</u>	
<u>ESC 541</u>	<u>Teaching Math and Science to Diverse Students in Middle and High School</u>	<u>3</u>	

<u>ESC 597</u>	<u>Student Teaching in Inclusive Secondary Classrooms</u>	<u>3</u>	
<u>ESC 613</u>	<u>Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms</u>	<u>3</u>	

Sequence 8: Trans B Alternative Dual Certification in Mathematics Education and Teaching Students with Disabilities Generalist Grades 7-12 Option (45 credits)

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.

Degree Requirements

Foundations Core (21 credits): ESC 790 (3), EDS 780 (3), EDS 712 (3), EDS 714 (3), EDS 716 (3), EDS 741 (3), EDS 743 (3), and ESC 529 (3)

Pedagogical Core (15 credits): ESC 740 (3), ESC 748 (3), ESC 749 (3) ESC 540 (3), and ESC 541 (3)

Student Teaching (6 credits): ESC 597 (3) and ESC 613 (3)

<u>Course</u>		<u>Credits</u>	
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>	
<u>EDS 780</u>	<u>Adolescent Development</u>	<u>3</u>	
<u>EDS 712</u>	<u>The Adolescent with Disabilities</u>	<u>3</u>	
<u>EDS 714</u>	<u>Curr & Instructional Pract Culturally & Linguistically Diverse Adolescents w/Disabilities Inclusive Set</u>	<u>3</u>	
<u>EDS 716</u>	<u>Practicum in Curriculum & Instruction for Culturally & Linguistically Diverse Adolescents w/disabilities</u>	<u>3</u>	
<u>EDS 741</u>	<u>Psycho-educational Evaluation of Children with Learning Problems</u>	<u>3</u>	
<u>EDS 743</u>	<u>Behavioral Assessment, Management, and</u>	<u>3</u>	

	<u>Change</u>		
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>	
<u>ESC 740</u>	<u>Teaching Mathematics in Grades 7 - 10</u>	<u>3</u>	
<u>ESC 748</u>	<u>Teaching Problem solving in Math in Middle and High School</u>	<u>3</u>	
<u>ESC 749</u>	<u>Teaching Mathematics in Grades 11 and 12</u>	<u>3</u>	
<u>ESC 540</u>	<u>Teaching ELA and Social Studies to Diverse Students in Middle and High School</u>	<u>3</u>	
<u>ESC 541</u>	<u>Teaching Math and Science to Diverse Students in Middle and High School</u>	<u>3</u>	
<u>ESC 597</u>	<u>Student Teaching in Inclusive Secondary Classrooms</u>	<u>3</u>	
<u>ESC 613</u>	<u>Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms</u>	<u>3</u>	

Additional Certification Requirements

After fulfilling the Sequences 1 through 8 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), Teacher Performance Assessment (edTPA), and Mathematics CST; and (d) the completed fingerprinting clearance. Please see adviser for more information.

In addition to the requirements above, Sequence 7 and 8 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.

Extension to the New York State Initial Certificate to Teach Mathematics in Grades 5-9 (Middle Childhood Education)

Extension Program in Mathematics Education (17 credits)

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).

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.

Continuation Requirements

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

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.

Overview of the Program

Curriculum

Curriculum and Instruction (6 credits):

		Credits
ESC 748	Teaching Problem Solving in Mathematics in Middle and High School	3

ESC 749	Teaching Mathematics in Grades 11 and 12	3
Mathematics Content (11 credits):		
		Credits
MAT 604	Application of the Real and Complex Number Systems	3
MAT 615	Modern Algebra	4
MAT 637	Topics in Discrete Mathematics	4

4. **Rationale:**

Changes to the Bulletin language that appear here (with the exception of the admissions requirements, explained below) will have no impact on the learning outcomes. These changes are needed for clarification and accuracy. For example, the same information was repeated several times under disparate subheadings in the original Bulletin language.

The new sequences 7 and 8 remove many barriers preventing students from earning a second certification in Students with Disabilities (SWD) Generalist Grades 7-12 including significantly reducing the aggregate number of credits and eliminates an additional semester of the student teaching experience. From the supply perspective, it most likely will become the flagship sequence because of the critical shortage of SWD teachers especially in the Bronx. From the demand side, potential candidates often ask about earning the additional certification, but few actually accomplish this goal because of the high barriers.

Lastly, select course titles are being updated to align with the approved course revisions.

5. **Date of departmental approval:** 10/20/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: M.A. Program in Social Studies Education

Hegis Number: 2201.01; 0899.50

Program Code: 25794; 25793

Effective Term: Fall 2022

1. **Type of Change:** *Additional Sequence*

2. **From:**

Social Studies Education M.A. Program (Fulfills the academic requirements for Initial and Professional Certifications)

This program offers ~~three~~ sequences and is designed for candidates seeking a Master's degree in Social Studies Education, grades 7-12. ~~Sequences 1, 2, and 3 lead to Initial and Professional Certification for candidates looking to begin or resume an education certification progression.~~ Sequence 1 is for applicants with no previous relevant secondary education coursework and offers a certification pathway for those coming from a non-social science background and those seeking a history-intensive experience. Sequence 2 is for applicants who have completed some additional relevant education coursework as an undergraduate without obtaining an initial teaching license. Sequence 3 is for applicants with a bachelor's degree in history or a social science with no previous relevant secondary education coursework.

Social Studies Education Admission 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.
- 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.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level. Note: An applicant whose GRE score is lower than 1 standard deviation below the 50th percentile may be admitted to a program with the following stipulation: The candidate and advisor will prepare a retention plan to support the candidate in further developing the skills needed to meet the 50th percentile or better on a nationally normed basic skills test approved by the School of Education.

Degree Requirements

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.

Sequence 1: History Intensive Option (41-42 credits)

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.

- Foundations Core (12 credits): ESC 501 (3), ESC 502 (3), ESC 529 (3) and ESC 506 (3)
- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3)
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3) or Teaching Internship for Current Teachers-of-Record (3 credits): ESC 595 (2) and ESC 612 (3)

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in Secondary Education	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 533	Teaching World History in Middle and High School	3
ESC 534	Teaching U.S. History and Government	3
HIW 533	World History and Historiography	3

HIU 534	U.S. History and Historiography	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching	3
	Or	
ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Seminar in Secondary Student Teaching	3

Sequence 2: Undergraduate Education Minor Option (30 credits)

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.

- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3)
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3)

		Credits
ESC 533	Teaching World History in Middle and High School	3
ESC 534	Teaching U.S. History and Government	3
HIW 533	World History and Historiography	3
HIU 534	U.S. History and Historiography	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching	3

Sequence 3: History or Social Science Undergraduate Major Option (30 credits)

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.

- Foundations Core (12 credits): ESC 501 (3), ESC 502 (3), ESC 529 (3) and ESC 506 (3)
- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3)
- Content Core (3 credits): HIW 533 (3) or HIU 534 (3)
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3)

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in Secondary Education	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3
ESC 533	Teaching World History in Middle and High School	3
ESC 534	Teaching U.S. History and Government	3
HIW 533	World History and Historiography	3
HIU 534	U.S. History and Historiography	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching	3

Additional Certification Requirements

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), Teacher Performance Assessment (edTPA), 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.

3. **To:**

Social Studies Education M.A. Program (Fulfills the academic requirements for Initial and Professional Certifications)

This program offers six sequences and is designed for candidates seeking a Master's degree in Social Studies Education, grades 7-12 and dual certification options for Teaching Students with Disabilities (SWD) 7-12 Generalist. Sequence 1 is for applicants with no previous relevant secondary education coursework and offers a certification pathway for those coming from a non-social science background and those seeking a history-intensive experience. Sequence 2 is for applicants who have completed some additional relevant education coursework as an undergraduate without obtaining an initial teaching license. Sequence 3 is for applicants with a bachelor's degree in history or a social science with no previous relevant secondary education coursework. Sequence 4 is for applicants with a bachelor's degree in history or a social science with no relevant secondary education coursework and an interest in dual Social Studies 7-12 and SWD 7-12 Generalist certification. Sequences 5 is for candidates seeking alternative Trans B certification in Social Studies 7-12. And Sequence 6 is for applicants seeking alternative Trans B dual certification in Social Studies 7-12 and SWD 7-12 Generalist.

Admission 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.
- Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level. Note: An applicant whose GRE score is lower than 1 standard deviation below the 50th percentile may be admitted to a program with the following stipulation: The candidate and advisor will prepare a retention plan to support the candidate in further developing the skills needed to meet the 50th percentile or better on a nationally normed basic skills test approved by the School of Education.

Degree Requirements

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.

Sequence 1: History Intensive Option (41-42 credits)

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.

- Foundations Core (12 credits): ESC 501 (3), ESC 502 (3), ESC 529 (3) and ESC 506 (3)
- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3)
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3) or Teaching Internship for Current Teachers-of-Record (3 credits): ESC 595 (2) and ESC 612 (3)

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in <u>Middle and High School</u> Education	3
ESC 506	<u>Teaching Students with Disabilities</u>	3
ESC 533	Teaching World History in Middle and High School	3
ESC 534	Teaching U.S. History and Government	3
HIW 533	World History and Historiography	3
HIU 534	U.S. History and Historiography	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching	3
	Or	

ESC 595	Internship in Classroom Teaching	1-3
ESC 612	Seminar in Secondary Student Teaching	3

Sequence 2: Undergraduate Education Minor Option (30 credits)

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.

- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3)
- Content Core (15 credits): HIW 533 (3), HIU 534 (3), and three additional history or social science courses chosen in consultation with the adviser.
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3)

		Credits
ESC 533	Teaching World History in Middle and High School	3
ESC 534	Teaching U.S. History and Government	3
HIW 533	World History and Historiography	3
HIU 534	U.S. History and Historiography	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching	3

Sequence 3: History or Social Science Undergraduate Major Option (30 credits)

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.

- Foundations Core (12 credits): ESC 501 (3), ESC 502 (3), ESC 529 (3) and ESC 506 (3)
- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3)
- Content Core (3 credits): HIW 533 (3) or HIU 534 (3)
- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3)

Credits

ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in <u>Middle and High School</u> Education	3
ESC 506	<u>Teaching Students with Disabilities</u>	3
ESC 533	Teaching World History in Middle and High School	3
ESC 534	Teaching U.S. History and Government	3
HIW 533	World History and Historiography	3
HIU 534	U.S. History and Historiography	3
ESC 708	Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas	3
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching	3

Sequence 4: Dual Certification Social Studies and Teaching Students with Disabilities Generalist Grades 7-12 Option (39 credits)

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.

- Foundations Core (21 credits): EDS 780 (3), EDS 712 (3), EDS 714 (3), EDS 716 (3), EDS 741 (3), EDS 743 (3), and ESC 529 (3)
- Pedagogical Core (12 credits): ESC 533 (3), ESC 534 (3), ESC 540 (3), and ESC 541 (3)
- Student Teaching (6 credits): ESC 597 (3) and ESC 613 (3)

		<u>Credits</u>
<u>EDS 780</u>	<u>Adolescent Development</u>	<u>3</u>
<u>EDS 712</u>	<u>The Adolescent with Disabilities</u>	<u>3</u>
<u>EDS 714</u>	<u>Curr&Instructional Pract Culturally&Linguistically</u>	<u>3</u>

	<u>Diverse Adolescents w/Disabilities Inclusive Set</u>	
<u>EDS 716</u>	<u>Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents w/disabilities</u>	<u>3</u>
<u>EDS 741</u>	<u>Psycho-educational Evaluation of Children with Learning Problems</u>	<u>3</u>
<u>EDS 743</u>	<u>Behavioral Assessment, Management, and Change</u>	<u>3</u>
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>
<u>ESC 533</u>	<u>Teaching World History in Middle and High School</u>	<u>3</u>
<u>ESC 534</u>	<u>Teaching U.S. History and Government</u>	<u>3</u>
<u>ESC 540</u>	<u>Teaching ELA and Social Studies to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 541</u>	<u>Teaching Math and Science to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 597</u>	<u>Student Teaching in Inclusive Secondary Classrooms</u>	<u>3</u>
<u>ESC 613</u>	<u>Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms</u>	<u>3</u>

Sequence 5: Trans B Alternative Certification in Social Studies 7-12 (33 credits)

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.

- Introductory Core (9 credits): ESC 790 (3), ESC 501 (3), and ESC 506 (3)
- Foundations Core (6 credits): ESC 502 (3), ESC 529 (3)
- Pedagogical Core (6 credits): ESC 533 (3) and ESC 534 (3)
- Content Core (3 credits): HIW 533 (3) or HIU 534 (3)

- Project Seminar (3 credits): ESC 708 (3)
- Student Teaching (6 credits): ESC 596 (3) and ESC 612 (3)

		<u>Credits</u>
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>
<u>ESC 501</u>	<u>Psychological Foundations of Education</u>	<u>3</u>
<u>ESC 502</u>	<u>Historical Foundations of Education: A Multicultural Perspective</u>	<u>3</u>
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>
<u>ESC 506</u>	<u>Teaching Students with Disabilities</u>	<u>3</u>
<u>ESC 533</u>	<u>Teaching World History in Middle and High School</u>	<u>3</u>
<u>ESC 534</u>	<u>Teaching U.S. History and Government</u>	<u>3</u>
	<u>Select one of the following content courses:</u>	
<u>HIW 533</u>	<u>World History and Historiography</u>	<u>3</u>
<u>HIU 534</u>	<u>U.S. History and Historiography</u>	<u>3</u>
<u>ESC 708</u>	<u>Project Seminar in Curriculum, Materials, and Assessment in Specialized Areas</u>	<u>3</u>
<u>ESC 596</u>	<u>Student Teaching in the Middle and High School Grades</u>	<u>3</u>
<u>ESC 612</u>	<u>Seminar in Secondary Student Teaching</u>	<u>3</u>

Sequence 6: Trans B Alternative Dual Certification in Social Studies 7-12 and Students with Disabilities, Generalist, Grades 7-12 (42 credits)

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.

- Introductory Core (9 credits): ESC 790 (3), EDS 780 (3), and EDS 743 (3)

- Foundations Core (12 credits): EDS 714 (3), EDS 740 (3), EDS 743 (3), and ESC 529 (3)
- Pedagogical Core (15 credits): EDS 716 (3), ESC 533 (3), ESC 534 (3), ESC 540 (3), and ESC 541 (3)
- Student Teaching (6 credits): ESC 597 (3) and ESC 613 (3)

		<u>Credits</u>
<u>ESC 790</u>	<u>Workshop in Curriculum Materials</u>	<u>3</u>
<u>EDS 780</u>	<u>Adolescent Development</u>	<u>3</u>
<u>EDS 712</u>	<u>The Adolescent with Disabilities</u>	<u>3</u>
<u>EDS 714</u>	<u>Curr&Instructional Pract Culturally&Linguistically Diverse Adolescents</u>	<u>3</u>
<u>EDS 716</u>	<u>w/Disabilities Inclusive Set EDS 716: Practicum in Curriculum&Instruction for Culturally&Linguistically Diverse Adolescents</u>	<u>3</u>
<u>EDS 741</u>	<u>w/disabilities Psycho-educational Evaluation of Children with Learning Problems</u>	<u>3</u>
<u>EDS 743</u>	<u>Behavioral Assessment, Management, and Change</u>	<u>3</u>
<u>ESC 529</u>	<u>Language and Literacies Acquisition in Middle and High School Education</u>	<u>3</u>
<u>ESC 533</u>	<u>Teaching World History in Middle and High School</u>	<u>3</u>
<u>ESC 534</u>	<u>Teaching U.S. History and Government</u>	<u>3</u>
<u>ESC 540</u>	<u>Teaching ELA and Social Studies to Diverse Students in Secondary Schools</u>	<u>3</u>
<u>ESC 541</u>	<u>Teaching Math and Science to Diverse Students in Middle and High School</u>	<u>3</u>
<u>ESC 597</u>	<u>Student Teaching in Inclusive Secondary Classrooms</u>	<u>3</u>
<u>ESC 613</u>	<u>Student Teaching and Project Seminar in Diverse</u>	<u>3</u>

and Inclusive Secondary
Classrooms

Additional Certification Requirements

After fulfilling the Sequences 1 through 3 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), Teacher Performance Assessment (edTPA), and Social Studies CST; and (d) the completed fingerprinting clearance. Please see adviser for more information.

In addition to the requirements above, Sequence 4 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.

Sequences 5 and 6 candidates will also complete the Trans B application and all relevant requirements including certification exams and workshops.

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.

4. Rationale:

These new sequences greatly enhance our course offerings and remove many barriers preventing students from earning a second certification in Students with Disabilities (SWD) Generalist Grades 7-12 including significantly reducing the aggregate number of credits and eliminating an additional semester of the student teaching experience. From the supply perspective, it probably will become the flagship sequence because of the critical shortage of SWD secondary teachers especially in the Bronx area of New York City. From the demand side, potential candidates often ask about earning the SWD certification, but few accomplish this goal because of the high barriers.

Lastly, select course titles are being updated to align with the approved course revisions.

5. Date of departmental approval: 10/20/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

Name of Program and Degree Award: Teaching Spanish 7-12 M.A.

Hegis Number: 1105

Program Code: 33999

Effective Term: Fall 2022

1. Type of Change: Additional Sequence

2. From: Teaching Spanish 7-12 M.A.

This program is designed for candidates seeking a Master's degree in Teaching Spanish. Graduates of this program are eligible for New York State Certification in Teaching Spanish grades 7-12 upon completion of additional New York State Education Requirements. Applicants will apply to one of the 2 following sequences based on their qualifications:

Sequence 1 (36-39 credits). Candidates who seek initial New York State certification in Teaching Spanish grades 7-12

Sequence 2 (36 credits). Transitional B candidates who seek initial New York State certification in Teaching Spanish grades 7-12

Admission Requirements

1. A bachelor's degree from an accredited college or university with a Spanish major (or its equivalent) and an overall index of 3.0 or higher. In order to be recommended by Lehman College for certification in Teaching Spanish, candidates must have completed a core of liberal arts/sciences courses in addition to their major (see adviser for details).
2. Demonstrate the ability to successfully pursue graduate study by earning a B or better in Spanish coursework.
3. Have completed 24 credits in advanced (300-level and above) undergraduate Spanish courses (including a minimum of 12 advanced credits in literature courses conducted in Spanish). If these requirements are not met, additional undergraduate courses must be completed before admission to the program and after consultation with the Department of Languages and Literatures.
4. ~~Submit scores from the Spanish Content Specialty Test (CST).~~
5. ~~If conditionally admitted, meet conditions starting in the first semester and finishing in no more than three consecutive semesters.~~
6. For Sequence 2, be eligible for a valid New York State Transitional B certificate in Teaching Spanish grades 7-12.
7. Two letters of recommendation.
8. Report to the Department of Languages and Literatures for consultation with adviser and assessment of Spanish language skills prior to matriculation.
9. Oral proficiency at the Advanced Low level on the American Council on Teaching Foreign Languages (ACTFL) Advanced Level Check Oral Proficiency Interview (OPI). Candidates who do not score Advanced Low are accepted conditionally and must redo and pass the interview before completion of 18 credits.
10. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level. Note: An applicant whose GRE score is lower than 1 standard deviation below the 50th percentile may be admitted to a program with the following stipulation: The candidate and advisor will prepare a retention plan to support the candidate in further developing the skills needed to

meet the 50th percentile or better on a nationally normed basic skills test approved by the School of Education.

Degree Requirements

Students must consult with an adviser in the M.A. Teaching Spanish program before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser. All students must complete the curriculum corresponding to one of the ~~two~~ sequences below.

Sequence 1 (36-39 crs.). Candidates who seek initial New York State certification in Spanish grades 7-12

Educational Foundations (12 crs.)

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in Secondary Education	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3

Methods of Teaching Spanish (6 crs.)

		Credits
ESC 524	Teaching Foreign Language in Middle and High School	3
ESC 562	Teaching Language Arts in Languages Other than English	3

Spanish Language, Literature, and Culture (15 crs.)

		Credits
SPA 601	Hispanic Linguistics	3
SPA 618	Spanish Dialectology and Sociolinguistics	3
SPA 619	Hispanic Culture	3

Electives

Electives: 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

Student Teaching or Teaching Internship and Seminar (3-6 crs.)**Teaching Internship for full-time Spanish teachers:**

		Credits
ESC 595	Internship in Classroom Teaching	4-3
ESC 611	Teaching Internship Seminar in Secondary Education	4

Or Student Teaching in Spanish:

		Credits
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching.	3

Sequence 2 (36 crs.) Transitional B candidates who seek initial New York State certification in Spanish grades 7-12**Educational Foundations (12 crs.)**

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in Secondary Education	3
ESC 506	Special Needs Education in TESOL and Secondary Settings	3

Methods of Teaching Spanish (6 crs.)

		Credits
ESC 524	Teaching Foreign Language in Middle and High School	3
ESC 562	Teaching Language Arts in Languages Other than English	3

Spanish Language, Literature, and Culture (15 crs.)

		Credits
SPA 601	Hispanic Linguistics	3

SPA 618	Spanish Dialectology and Sociolinguistics	3
SPA 619	Hispanic Culture	3
Electives		6

Electives: 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

Teaching Internship

		Credits
ESC 595	Internship in Classroom Teaching	1-3
ESC 611	Teaching Internship Seminar in Secondary Education	4

In addition to successful completion of coursework with an overall GPA of 3.0, all candidates must pass a comprehensive Spanish examination with the Department of Languages and Literatures in order to graduate.

Additional Requirements for Certification in Teaching Spanish 7-12:

In order to be recommended for Initial Certification in teaching Spanish 7-12, candidates must (a) have a bachelor's degree that meets New York State requirements for a core in the liberal arts and sciences (please see adviser for details); (b) for candidates seeking initial certification, present passing scores on the following New York State-examinations: EAS, edTPA and Spanish Content Specialty Test; for candidates certified prior to April 30, 2014, present passing scores only on the Spanish Content Specialty Test; and (c) meet any additional New York State requirements.

In order to qualify for Professional Certification in teaching Spanish 7-12, candidates must successfully complete the master's program, must have completed three 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 Teaching Spanish 7-12 candidates may also apply to the Advanced Certificate: Teaching English to Speakers of Other Languages (TESOL P-12), and become ESOL-certified upon successful completion of that program of study.~~

Nonmatriculants

Nonmatriculants must meet with an adviser from the Department of Middle and High School Education and must have their skills assessed by an adviser from the Department of Languages and Literatures prior to registration.

3. To: Teaching Spanish 7-12 M.A.

This program is designed for candidates seeking a Master's degree in Teaching Spanish. Graduates of this program are eligible for New York State Certification in Teaching Spanish grades 7-12 upon completion of additional New York State Education Requirements. Applicants will apply to one of the three (3) following sequences based on their qualifications:

Sequence 1 (38-39 credits). Candidates who seek initial New York State certification in Teaching Spanish grades 7-12

Sequence 2 (38 credits). Transitional B candidates who seek initial New York State certification in Teaching Spanish grades 7-12

Sequence 3 (32-33 credits). Candidates with **an MHSE minor** who seek initial New York State certification in Teaching Spanish grades 7-12

Admission Requirements

1. A bachelor's degree from an accredited college or university with a Spanish major (or its equivalent) and an overall index of 3.0 or higher. In order to be recommended by Lehman College for certification in Teaching Spanish, candidates must have completed a core of liberal arts/sciences courses in addition to their major (see adviser for details).
2. Demonstrate the ability to successfully pursue graduate study by earning a B or better in Spanish coursework.
3. Have completed 24 credits in advanced (300-level and above) undergraduate Spanish courses (including a minimum of 12 advanced credits in literature courses conducted in Spanish). If these requirements are not met, additional undergraduate courses must be completed before admission to the program and after consultation with the Department of Languages and Literatures.
4. For Sequence 2, be eligible for a valid New York State Transitional B certificate in Teaching Spanish grades 7-12.
5. Two letters of recommendation.
6. Report to the Department of Languages and Literatures for consultation with adviser and assessment of Spanish language skills prior to matriculation.
7. Oral proficiency at the Advanced Low level on the American Council on Teaching Foreign Languages (ACTFL) Advanced Level Check Oral Proficiency Interview (OPI). Candidates who do not score Advanced Low are accepted conditionally and must redo and pass the interview before completion of 18 credits.
8. Submit scores of the Graduate Record Examination (GRE) revised general test, i.e., verbal reasoning, quantitative reasoning, and analytical writing if applying for admission at the graduate level. Note: An applicant whose GRE score is lower than 1 standard deviation below the 50th percentile may be admitted to a program with the following stipulation: The candidate and advisor will prepare a retention plan to support the candidate in further developing the skills needed to meet the 50th

- percentile or better on a nationally normed basic skills test approved by the School of Education.
9. For Sequence 3: Complete 12 credits (education minor) in the Department of Middle and High School Education with a minimum grade point average of 3.0.
 10. Meet with the MHSE/MA Teaching Spanish adviser to discuss conditions for sequence eligibility.

Degree Requirements

Students must consult with an adviser in the M.A. Teaching Spanish program before starting their master's program. During their first semester, matriculated students are required to plan their program with a program adviser. All students must complete the curriculum corresponding to one of the three (3) sequences below.

Sequence 1 (38-39 crs.). Candidates who seek initial New York State certification in Spanish grades 7-12

Educational Foundations (12 crs.)

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in <u>Middle and High School</u> Education	3
ESC 506	<u>Teaching Students with Disabilities</u>	3

Methods of Teaching Spanish (6 crs.)

		Credits
ESC 524	Teaching Foreign Language in Middle and High School	3
ESC 562	Teaching Language Arts in Languages Other than English	3

Spanish Language, Literature, and Culture (15 crs.)

		Credits
SPA 601	Hispanic Linguistics	3
SPA 618	Spanish Dialectology and Sociolinguistics	3
SPA 619	Hispanic Culture	3
		6

Electives

Note on Electives: The 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

Student Teaching or Teaching Internship and Seminar (5-6 crs.)**Teaching Internship for full-time Spanish teachers:**

		Credits
ESC 595	Internship in Classroom Teaching	<u>2</u>
<u>ESC 612</u>	<u>Seminar in Secondary Student Teaching</u>	<u>3</u>

Or Student Teaching in Spanish:

		Credits
ESC 596	Student Teaching in the Middle and High School Grades	3
ESC 612	Seminar in Secondary Student Teaching.	3

Sequence 2 (38 crs.) Transitional B candidates who seek initial New York State certification in Spanish grades 7-12**Educational Foundations (12 crs.)**

		Credits
ESC 501	Psychological Foundations of Education	3
ESC 502	Historical Foundations of Education: A Multicultural Perspective	3
ESC 529	Language and Literacies Acquisition in <u>Middle and High School</u> Education	3
ESC 506	<u>Teaching Students with Disabilities</u>	3

Methods of Teaching Spanish (6 crs.)

		Credits
ESC 524	Teaching Foreign Language in Middle and High School	3
ESC 562	Teaching Language Arts in Languages Other than English	3

Spanish Language, Literature, and Culture (15 crs.)

Credits

SPA 601	Hispanic Linguistics	3
SPA 618	Spanish Dialectology and Sociolinguistics	3
SPA 619	Hispanic Culture	3
Electives		6

Note on Electives: The 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

Teaching Internship

		Credits
ESC 595	Internship in Classroom Teaching	<u>2</u>
<u>ESC 612</u>	<u>Seminar in Secondary Student Teaching</u>	<u>3</u>

Sequence 3 (32-33 crs.). Candidates who seek initial New York State certification in Spanish grades 7-12

Methods of Teaching Spanish (9 crs.)

		<u>Credits</u>
<u>ESC 524</u>	<u>Teaching Foreign Language in Middle and High School</u>	<u>3</u>
<u>ESC 562</u>	<u>Teaching Language Arts in Languages Other than English</u>	<u>3</u>
<u>ESC 760</u>	<u>Second Language Learning and Teaching</u>	<u>3</u>

Writing / Literacy (3 crs.)

		<u>Credits</u>
<u>ESC 511</u>	<u>Explorations and Practices in Academic Discourse Communities</u>	<u>3</u>

Spanish Language, Literature, and Culture (15 crs.)

		<u>Credits</u>
<u>SPA 601</u>	<u>Hispanic Linguistics</u>	<u>3</u>
<u>SPA 618</u>	<u>Spanish Dialectology and Sociolinguistics</u>	<u>3</u>
<u>SPA 619</u>	<u>Hispanic Culture</u>	<u>3</u>
Electives		<u>6</u>

Note on Electives: The 6 credits of electives to be determined in consultation with the adviser from the Department of Languages and Literatures.

Student Teaching or Teaching Internship and Seminar (5-6 crs.)

		<u>Credits</u>
<u>ESC 596</u>	<u>Student Teaching in the Middle and High School Grades</u>	<u>3</u>
<u>ESC 612</u>	<u>Seminar in Secondary Student Teaching</u>	<u>3</u>

Or Teaching Internship in Spanish:

<u>ESC 595</u>	<u>Internship in Classroom Teaching</u>	<u>2</u>
<u>ESC 612</u>	<u>Seminar in Secondary Student Teaching</u>	<u>3</u>

In addition to successful completion of coursework with an overall GPA of 3.0, all candidates must pass a comprehensive Spanish examination with the Department of Languages and Literatures in order to graduate.

Additional Requirements for Certification in Teaching Spanish 7-12:

In order to be recommended for Initial Certification in teaching Spanish 7-12, candidates must (a) have a bachelor's degree that meets New York State requirements for a core in the liberal arts and sciences (please see adviser for details); (b) for candidates seeking initial certification, present passing scores on the following New York State-examinations: EAS, edTPA and Spanish Content Specialty Test; for candidates certified prior to April 30, 2014, present passing scores only on the Spanish Content Specialty Test; and (c) meet any additional New York State requirements.

In order to qualify for Professional Certification in teaching Spanish 7-12, candidates must successfully complete the master's program, must have completed three 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.

Nonmatriculants

Nonmatriculants must meet with an adviser from the Department of Middle and High School Education and must have their skills assessed by an adviser from the Department of Languages and Literatures prior to registration.

4. Rationale:

Teaching Spanish 7-12 M.A. – Sequence 3 has the unique ability:

1. To allow for a seamless transition from undergraduate to graduate study.
2. To provide students with the opportunity to enter the workforce with all the benefits of a master's degree without losing the time or incurring expenses that two years of graduate study would otherwise cost them.
1. To build stronger analytical, critical thinking, and leadership skills

2. To cut down time spent repeating Foundations courses that were taken at the undergraduate level and are yet required at the graduate level.

Lastly, select course titles are being updated to align with the approved course revisions.

5. **Date of departmental approval:** 10/20/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of change:** New Course

2.

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	Middle and High School Education

Course Prefix & Number	ESC 540
Course Title	Teaching ELA and Social Studies to Diverse Students in Secondary Schools
Description	An interdisciplinary approach to developing academic literacy through English language arts and literature combined with the theory and practice of social studies and effective citizenship. Curriculum development; use of relevant technology; current standards; instructional strategies; inclusion of students from diverse linguistic and cultural backgrounds and students with disabilities. Includes field experience in middle and high school.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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. **Rationale:**

This course is designed for students seeking special education certification and required for participants in dual certification programs in Middle and High School Education and Students with Disabilities. It integrates the latest research and knowledge base into an integrated, interdisciplinary approach to learning ELA and social studies.

4. **Learning Outcomes (By the end of the course students will be expected to):**

- Teacher candidates will be able to design, implement and assess lesson plans with an integrated approach to teaching ELA and social studies in inclusive secondary classrooms.
- Candidates will be able to apply ELA and social studies standards.
- Candidates will be able to identify best practices in teaching ELA and social studies.

- Candidates will be able to develop a repertoire of teaching strategies.
- Candidates will be able to create learning experiences incorporating key interdisciplinary concepts.

5. **Date of Departmental Approval:** 9/9/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of change:** New Course

2.

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	Middle and High School Education
Course Prefix & Number	ESC 541
Course Title	Teaching Math and Science to Diverse Students in Middle and High School
Description	An interdisciplinary approach to the methods and materials of teaching mathematics combined with the theory and practice of teaching science. Curriculum development; use of relevant technology; current standards; instructional strategies; inclusion of students from diverse linguistic and cultural backgrounds and students with disabilities. Includes field experience in middle and high school.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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

	<p>_____ Creative Expression</p> <p>_____ Individual and Society</p> <p>_____ Scientific World</p>
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3. Rationale:

This course is designed for students seeking special education certification and required for students in dual certification programs in Middle and High School Education and Students with Disabilities. It integrates the latest research and knowledge base into an integrated, interdisciplinary approach to learning ELA and social studies.

4. Learning Outcomes (By the end of the course students will be expected to):

- Teacher candidates will be able to design, implement and assess lesson plans with an integrated approach to teaching math and science in inclusive secondary classrooms.
- Candidates will be able to apply math and science standards.
- Candidates will be able to identify best practices in teaching math and science.
- Candidates will be able to develop a repertoire of teaching strategies.
- Candidates will be able to create learning experiences incorporating key interdisciplinary concepts.

5. Date of Departmental Approval: 9/9/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of change:** New Course

2.

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	Middle and High School Education
Course Prefix & Number	ESC 597
Course Title	Student Teaching in Inclusive Secondary Classrooms
Description	Supervised student teaching in middle and high school of culturally and linguistically diverse adolescents with disabilities in collaborative and/or specialized secondary educational settings.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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. **Rationale:**

This practicum will support our teaching candidates in the new dual certification program and will be required for candidates in the program. It is geared specifically for student teaching in inclusive secondary classrooms.

4. **Learning Outcomes (By the end of the course students will be expected to):**

- Candidates will be able to construct, execute, assess and reflect on their lesson plans in inclusive middle and high school classrooms.
- Candidates will provide evidence of being dispositionally suited for teaching in inclusive middle and high school classrooms.
- Candidates will complete all of the required New York State mandates for student teaching.

5. **Date of Departmental Approval:** 9/9/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course title; course description

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 506
Course Title	Special Needs Education in TESOL and Secondary Settings
Description	Identification, instruction, and assessment of special needs populations in secondary and TESOL settings. Laws and regulations pertaining to the education of special needs children ; information on categories of disability, including autism ; identifying and remediating specific learning disabilities ; special education process ; classroom management and positive behavioral supports and interventions; individualized and differentiated instruction; effective co-teaching and collaboration. Fieldwork required.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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

	Scientific World
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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 506
Course Title	Teaching Students with Disabilities
Description	Identification, instruction, and assessment of <u>culturally and linguistically diverse students with disabilities</u> . Laws and regulations pertaining to <u>students with disabilities</u> ; information on categories of disability; <u>working with individualized education plans (IEPs)</u> ; positive behavioral supports and interventions; individualized and differentiated instruction; effective co-teaching and collaboration. Fieldwork required.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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 checked="" type="checkbox"/> Scientific World

4. Rationale:

These updates align the course title and description with current State regulations and eliminate redundancy. References to specific subjects or grade bands were deleted since the course is open to all departmental programs.

5. Date of departmental approval: 10/20/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course description

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 519
Course Title	Teaching Science in Middle and High School
Description	Research and practice in the teaching of science at the secondary school level. A focus on inquiry-driven methods consistent with current standards in science education, uses of technology and relevant software, teaching strategies, assessment, inclusion of special student populations, and development of science literacy with an emphasis on the teacher-as-learner. Includes field experience.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc.)	NA
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

	____ Scientific World
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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 519
Course Title	Teaching Science in Middle and High School
Description	Research and practice in the teaching of science <u>and the teaching and acquisition of language and literacies through science content</u> at the secondary school level. A focus on inquiry-driven methods consistent with current standards in science education, uses of technology and relevant software, teaching strategies, assessment, inclusion of special student populations, and development of science literacy with an emphasis on the teacher-as-learner. Includes field experience.
Pre/ Co Requisites	NA
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:

The course description was changed to include literacy standards in compliance with New York State core program requirements.

5. **Date of departmental approval:** 9/9/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course description and title

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 529
Course Title	Language and Literacies Acquisition in Secondary Education
Description	The teaching and acquisition of language and literacies through secondary content areas, including media literacy, with students of diverse language backgrounds and abilities. Curriculum development; current standards; inclusion of students with disabilities; and assessment. Includes field experience.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc.)	NA
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

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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 529
Course Title	Language and Literacies Acquisition in <u>Middle and High School Education</u>
Description	The teaching and acquisition of language and literacies through <u>middle and high school content areas</u> , including media literacy, with students of diverse <u>linguistic</u> backgrounds and <u>language</u> abilities. Curriculum development; current standards; inclusion of students with disabilities; and assessment.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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:** The field hours were not necessary in this course because the program already met the minimum New York State requirements. Course description and title have also been updated to differentiate it from a similar undergraduate course offering.

5. **Date of departmental approval:** May 13, 2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course description

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 612
Course Title	Seminar in Secondary Student Teaching
Description	Analysis of problems or practices in secondary school teaching. Weekly seminar and assigned in-school activities required. Required state teacher certification assessments supported through the course.
Pre/ Co Requisites	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.)	NA
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

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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 612
Course Title	Seminar in Secondary Student Teaching
Description	Analysis of problems or practices in secondary school teaching <u>with an emphasis on the teaching and acquisition of language and literacies</u> . Weekly seminar and assigned in-school activities required. Required state teacher certification assessments supported through the course.
Pre/ Co Requisites	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)	NA
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:

The description was changed to reflect the focus of the course in meeting New York State core requirements.

5. Date of departmental approval: October 4, 2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of change:** New Course

2.

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	Middle and High School Education
Course Prefix & Number	ESC 613
Course Title	Student Teaching and Project Seminar in Diverse and Inclusive Secondary Classrooms
Description	Seminar supporting the student teaching of culturally and linguistically diverse adolescents with disabilities in inclusive and/or specialized educational settings with an emphasis on the teaching and acquisition of language and literacies. Required state certification student teaching assessments. Development of a culminating curriculum project in candidates' field that includes reflection and analysis of the student teaching experience; 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	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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
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3. Rationale:

This seminar will support our teaching candidates in the new dual certification program. It is geared specifically for student teaching in inclusive secondary classrooms.

4. Learning Outcomes (By the end of the course students will be expected to):

- Candidates will apply best research practices to teach a diverse range of middle and high school students.
- Candidates will demonstrate the ability to effectively plan, execute and assess a common core standards learning experience in a middle or high school classroom.
- Candidates will construct a special project consistent with the standards and best practices in their field.
- Candidates will reflect on the effectiveness of their teaching.
- Candidates will discuss challenges and successes of teaching in diverse middle and high school classrooms.

5. Date of Departmental Approval: 9/9/2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course description

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 757
Course Title	Linguistics for TESOL/ Bilingual Teachers
Description	The study of language, including phonetics/phonology, morphology, syntax, semantics, pragmatics, and sociolinguistics, applied to the teaching of language and content to linguistically and culturally diverse students.
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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 757
Course Title	Linguistics for TESOL/ Bilingual Teachers
Description	The study of language, including phonetics/phonology, morphology, syntax, semantics, pragmatics, and sociolinguistics, applied to the teaching of language and content to linguistically and culturally diverse students. <u>Includes field experience.</u>
Pre/ Co Requisites	NA
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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:**

When ESC 757 was revised several years ago, required fieldwork was inadvertently omitted from the course description. This update brings the description into alignment with current course outcomes and implementation in our programs.

5. **Date of departmental approval:** October 4, 2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course prerequisites

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 759
Course Title	Foundations of Bilingual/ Bicultural Education
Description	Bilingual/bicultural education, including history, goals, models, rationale, legal and legislative basis, linguistic principles, and language evaluation. Current issues and research findings in bilingual/bicultural education will be studied. Includes field experience.
Pre/ Co Requisites	ESC 501, ESC 502, or ESC 703 (or an equivalent) and permission of the adviser.
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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 759
Course Title	Foundations of Bilingual/ Bicultural Education
Description	Bilingual/bicultural education, including history, goals, models, rationale, legal and legislative basis, linguistic principles, and language evaluation. Current issues and research findings in bilingual/bicultural education will be studied. Includes field experience.
Pre/ Co Requisites	Permission of the adviser.
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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 501, 502, and 703 are no longer considered prerequisites to meeting current ESC 759 learning outcomes.

5. **Date of departmental approval:** October 4, 2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course prerequisites

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 769
Course Title	Latinos in U.S. School
Description	Interdisciplinary study of educational issues affecting Latinos in the United States, with a focus on the urban school setting: educational, historical, literary, linguistic, and sociological sources will be utilized to analyze issues.
Pre/ Co Requisites	ESC 501 or ESC 502 (or an equivalent) and permission of the adviser.
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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 769
Course Title	Latinos in U.S. School
Description	Interdisciplinary study of educational issues affecting Latinos in the United States, with a focus on the urban school setting: educational, historical, literary, linguistic, and sociological sources will be utilized to analyze issues.
Pre/ Co Requisites	Permission of the adviser.
Credits	3
Hours	3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc)	NA
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 501 and 502 are no longer considered prerequisites to meeting current ESC 769 course learning outcomes.

5. **Date of departmental approval:** October 4, 2021

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

DEPARTMENT OF MIDDLE AND HIGH SCHOOL EDUCATION

CURRICULUM CHANGE

1. **Type of Change:** Course description and pre/corequisites

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 790
Course Title	Workshop in Curriculum Materials Development in Specialized Areas
Description	(May be re-elected for credit, with chair's permission, with change of topics.) A workshop for teachers and curriculum specialists interested in developing instructional materials for topics in specialized areas.
Pre/ Co Requisites	Completion of TESOL methods courses with a grade of B or better; an overall index of 3.0 or better; passing scores on the ESOL; and permission from the Professional Development Coordinator. ESC 611.
Credits	1-3
Hours	1-3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc.)	NA
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

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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 790
Course Title	Workshop in Curriculum Materials Development in Specialized Areas
Description	(May be re-elected for credit, with chair's permission, with change of topics.) A workshop for teachers and curriculum specialists interested in developing instructional materials for topics in specialized areas. <u>Field hours may be required.</u>
Pre/ Co Requisites	<u>Permission from the Department.</u>
Credits	1-3
Hours	1-3
Liberal Arts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Course Attribute (e.g. Writing Intensive, WAC, etc.)	NA
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:

We eliminated most of the pre/ corequisites because the course is used across several programs. Further, the description was changed to allow the added flexibility of integrating field hours into the workshop.

5. Date of departmental approval: October 4, 2021