

Adolescence Education Science Teacher

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We offer two pathways towards certification in adolescence science teaching. Both are designed for candidates with a major or the equivalent in the science discipline of certification.

Master of Arts in Teaching (MAT) in Adolescence Science Education, Grades 7-12.

The first path is a **Master of Arts in Teaching (MAT) in Adolescence Science Education, Grades 7-12**. The majority of the classes are in science education. This path is more appropriate for students who are either pre-service or in-service science teachers, have a background in the science content area of certification sought, and are not interested in continuing in a graduate study in their science area.

This new MAT program was created to address the needs of science teachers and their students. From its inception, our aim has been to create a rigorous teacher preparation program that provides urban teachers with deep theoretical foundations and clinical experience in the practice of teaching science that are needed to work with New York City's racially, ethnically, and linguistically diverse populations. Its design offers breadth of knowledge while providing crucial connections between theory, practice and to actual conditions in NYC classrooms. Through the use of pedagogy that includes research-based 7-12 science teaching practices this program is designed to enhance the teaching, mentoring, and retention of new science teachers as well as their students that may often be underrepresented in the sciences. The goals are to (a) improve the preparation, induction and retention of urban science teachers, and, (b) enhance the science learning of their students and increase their participation in the sciences. Major themes such as social justice, diversity, literacy, and special needs, are integrated throughout the program with and the teaching and learning of science.

Master of Arts (MA) in Adolescence education, grades 7-12

The second path is a **Master of Arts (MA) in Adolescence education, grades 7-12** that is offered in coordination with the science department in the candidates filed of certification. Classes in this second track are split between science education and science content. This path is more appropriate for either pre-service or in-service science teachers who wish to continue their graduate studies in their science field of discipline while also being certified as a science teacher. Approval by both the science education program coordinator and the graduate deputy in that science content area is required for admissions for this pathway.

Requirements

Applicants are interviewed and must submit two appropriate letters of recommendation. Additional requirements are found in the Graduate Bulletin sections “*Admission*” and “*Academic Regulations and Procedures*” and under the section “*Adolescence education and special subjects.*”

Applicants must submit scores or proof of registration for the Liberal Arts and Science Test (L.A.S.T.). Applicants to sub-programs I option A, must submit scores on the Content Specialty Test (CST) in the discipline of specialization.

Applicants must have a minimum undergraduate grade point average of 3.00. A minimum grade point average of 3.00 in graduate courses is required to maintain matriculation.

Each student is evaluated individually based upon prior experiences. Based upon this evaluation and current certification requirements of the New York State Education Department, courses in education or another department may be substituted for required courses with permission of the program coordinator. For transfer credits see “*Rules about transfer courses and credits*” in the Graduate Bulletin for more updated and complete information.

International applicants whose native language is not English or who were educated in a country where English is not the official language must take the Test of English as a Foreign Language (TOEFL) and arrange to have official score reports sent to the Office of Admissions. The minimum acceptable TOEFL score is 500 (or 173 in the computer-based version, or 61 in the Internet-based version). The code for reporting TOEFL scores to Brooklyn College is 2046. See “*Additional admission requirements for students with international credentials*” in the Graduate Bulletin for more updated and complete information.

The program of study must be approved by the science coordinator. All required education courses and some education electives require permission for registration as indicated in the Schedule of Classes. Applicants should note additional requirements found in the sections “*Admission*” and “*Academic Regulations and Procedures*.”

Master of Arts in Teaching (MAT) in Adolescence Science Education (7-12) * with specializations in Biology, Chemistry, Earth Science, or Physics

General Degree Requirements: Thirty-three to thirty-seven credits will be required for the degree depending on the applicants’ previous coursework, teaching experience and the certificates they hold. Each candidate will be evaluated individually and a program of study will be prescribed. In addition, students must complete a research project under advisement of a faculty member in Education 702.25T.

Concentration (A): Leads to qualification for professional teacher certification only
(33 credits)

HEGIS code: 0834.00; SED program code: 32663; SIMS code 633

This option is open to applicants that already have a New York State Initial Certificate in Adolescence Education (grades 7–12) or its equivalent.

Required Courses:

EDU 739.04 Childhood, Middle Childhood & Adolescence Psychology, Cognition, and Development

EDU 701.33T Collaborative Planning and Teaching Students with Special Needs, or EDU 726.1X Children and Youth with Special Needs, or EDU 726.2T Teaching in Least Restrictive Environments

EDU 711.04X Physical and Life Science Instruction and Learning I, Middle Childhood & Adolescence

EDU 701.25T. Foundations and Analysis of Teaching I-*Research I*

EDU 729.04X Historical, Philosophical, and Social Foundations of Education and Science

EDU 732.04X Physical and Life Science Instruction and Learning II, Middle Childhood & Adolescence

EDU 702.25T Seminar in Applied Theory and Research: Science and Environmental Education -*Research II*

Six (6) credits in science content and six (6) credits of electives; to be determined in consultation with and approval of program advisor

Concentration (B): Leads to qualification for initial or professional teacher certification

(37 credits).

HEGIS code: 0834.00; SED program code: 32662; SIMS code 631

Required Courses:

EDU 739.04 Childhood, Middle Childhood & Adolescence Psychology, Cognition, and Development

EDU 701.33T Collaborative Planning and Teaching Students with Special Needs, or EDU 726.1X Children and Youth with Special Needs, or EDU 726.2T Teaching in Least Restrictive Environments EDU 711.04X Physical and Life Science Instruction and Learning I, Middle Childhood & Adolescence

EDU 701.25T. Foundations and Analysis of Teaching I-*Research I*

EDU 729.04X Historical, Philosophical, and Social Foundations of Education and Science

EDU 732.04X Physical and Life Science Instruction and Learning II, Middle Childhood & Adolescence

EDU 702.25T Seminar in Applied Theory and Research: Science and Environmental Education -*Research II*

EDU 763.04T. Seminar I in Pedagogy & Curriculum, Middle Childhood & Adolescence Education: Science.

EDU 723.04T. Seminar II in Pedagogy & Curriculum, Middle Childhood & Adolescence Education: Science

EDU 764.5T. Adolescence Education and Special Subjects: Student Teaching Practicum I.

EDU 764.51T Adolescence Education and Special Subjects: Student Teaching Practicum II.

Six (6) credits in science content; to be determined in consultation with and approval of program advisor

Required Workshops:

Child Abuse Prevention

Substance Abuse

School Violence

Master of Arts (MA); Adolescence education (7-12)*

Biology teacher, HEGIS code 0401-01; SED code 26742; SIMS code 650

Chemistry teacher, HEGIS code 1905-01; SED code 26766; SIMS code 651

Physics teacher, HEGIS code 1902-01; SED code 26762; SIMS code 655

Matriculation requirements

Applicants must offer (a) or (b) or (c):

- (a) New York State Initial certification in Adolescence Education for grades 7–12 in biology, chemistry, or physics.

- (b) Courses in education that meet the New York State standards for the pedagogical core. These courses include study of the following: history of education and philosophy of education or principles of education or educational sociology; educational psychology or developmental psychology or psychology of adolescence or adolescent development; classroom management; teaching students with special needs and English language learners; 6 credits in literacy and language acquisition; curriculum development and methods of assessing student learning; uses of technology in the classroom; methods of teaching the appropriate subject area at appropriate grade levels; 100 hours of fieldwork; 40 days or 300 hours of student teaching at appropriate grade levels, or one year of full-time teaching in the appropriate subject area at appropriate grade levels, and a specified number of credits in the appropriate subject area (see requirements in the appropriate department listing); and submission of scores on the L.A.S.T.;
- (c) An undergraduate degree with an appropriate major or appropriate course work in the appropriate subject area, and submission of scores on the Liberal Arts and Science test (L.A.S.T.).

In addition to their course work, students must pass a comprehensive examination or submit a thesis acceptable to the appropriate science department. In addition, students must complete a research project under advisement of a faculty member in Education 724.04T.

Degree requirements for biology teacher

A minimum of 34 credits is required for the degree. Students must complete 22 credits in biology and related areas. Students must complete 12 credits in courses in the School of Education. Students take different education courses and sequences of courses depending on their previous course work, teaching experience, and the certificates they hold.

Students who possess Initial Certification in teaching biology must complete 9 credits in Group II and 3 credits in Group III, below. Students who do not possess Initial Certification in teaching biology or equivalent course work and teaching experience or who are teaching but do not possess Initial Certification in teaching biology must have the appropriate course work and credits in the subject area and must complete the appropriate courses in Group I before taking courses in Groups II and III. Students pursuing Initial Certification in teaching biology must take ED 792.2X, Teaching Writing Across the Curriculum, in Group III.

See the graduate bulletin under Biology for further details and program requirements.

Degree requirements for chemistry teacher

A minimum of 30 credits are required for the degree. Students must complete 12 credits in courses in the Chemistry Department. Six of the remaining 18 credits required for the degree may be taken in the Chemistry Department or in other science subjects directly related to chemistry. Students must complete 12 credits in courses in the School of Education. Students take different education courses and sequences of courses depending on their previous course work, teaching experience, and the certificates they hold.

Students who possess Initial Certification in teaching chemistry must complete 9 credits in Group II and 3 credits in Group III, below. Students who do not possess Initial Certification in teaching chemistry or equivalent course work and teaching experience or who are teaching but do not possess Initial Certification in teaching chemistry must have the appropriate course work and credits in the subject area and must complete the appropriate courses in Group I before taking courses in Groups II

and III, below. Students pursuing Initial Certification in teaching chemistry must take ED 792.2X, Teaching Writing Across the Curriculum, in Group III.

See the graduate bulletin under Chemistry for further details and program requirements.

Degree requirements for physics teacher

A minimum of 30 credits is required for the degree. Students must complete 12 credits in courses in the Physics Department including 6 credits in courses on the 700 level. Students must complete 12 credits in courses in the School of Education as described below. The remaining credits required for the degree may be in courses taken in any department.

Students take different education courses and sequences of courses depending on their previous course work, teaching experience, and the certificates they hold. Students who possess Initial Certification in teaching physics must complete 9 credits in Group II and 3 credits in Group III, below. Students who do not possess Initial Certification in teaching physics or equivalent course work and teaching experience or who are teaching but do not possess Initial Certification in teaching physics must have the appropriate course work and credits in the subject area and must complete the appropriate courses in Group I before taking courses in Groups II and III, below. Students pursuing Initial Certification in teaching physics must take Education 792.2X, Teaching Writing Across the Curriculum, in Group III.

See the graduate bulletin under Physics for further details and program requirements.

Courses

Students who possess Initial certification must complete 9 credits in Group II below, 3 credits in Group III, and at least 18 credits in their subject area of specialization.

Students who do not possess Initial certification or equivalent course work and teaching experience or who are teaching but do not possess Initial certification must have the appropriate course work and credits in the subject area and must complete the appropriate courses in Group I before taking courses in Groups II and III. Students pursuing Initial certification must take ED 792.2X, Teaching Writing Across the Curriculum, in Group III. Students who already have a master's degree but wish Initial certification must take appropriate courses in Group I and Group III, as determined at the time of matriculation by the head of adolescence education and special subjects or the adolescence science education program coordinator.

Group I

Education 742X, 792.1X, 763.04T, 764.5T, 723.04T, 764.51T.

Group II

Education 742.2T, 722.04T, 724.04T.

Group III

Education 716X, 721.04T, 726.1X, 731.3T, 751.2T, 751.1T (restricted to programs in special subjects), 784.2X, 792.2X, Education 792.4X/English 779X (cross-listed with the English Department), Education 796X/Theater 741 (cross-listed with the Theater Department), Education 799.5X.

Required Workshops for students pursuing Initial Certification:

Child Abuse Prevention
Substance Abuse
School Violence

***Please consult the graduate bulletin and program coordinator for further details, updates or additional requirements**