

SCIENCE EDUCATION

Boston University School of Education Graduate Programs



DEGREES AND CERTIFICATE OFFERED:

MASTER OF ARTS IN TEACHING (MAT)

MASTER OF EDUCATION (ED.M.)

CERTIFICATE OF ADVANCED GRADUATE STUDY (CAGS)

DOCTOR OF EDUCATION (ED.D.) IN CURRICULUM AND TEACHING

Boston University's Science Education Program prepares our students for professional responsibilities in designing, teaching, and supervising science programs at the elementary, secondary, and college levels. Our program connects emerging and experienced teachers to the foundations of what makes a quality science educator today: Up-to-date science content with innovative, diverse pedagogy.

We challenge our students to develop and practice ways so they will engage their students in the learning process, allowing young learners to experience science actively rather than being passive receptacles. Most importantly, we are not afraid to smile, cajole, criticize, comfort, and grow.

Our science education experience is one of belonging to a responsible closely-knit learning community determined to make a difference in the lives of children and teenagers. We are particularly concerned with the need to make emerging teachers prepared for teaching critical climate change concepts and consequences.

The Science Education graduate program prepares students to teach and supervise science programs in a variety of settings, including schools, museums, and other educational organizations. The program focuses on the identification of concepts and skills helpful in teaching science and technology to students in elementary school through college. While

this specialized program is individually tailored for each of our students, it contains a balance of study in teaching strategies and classroom materials as well as examination of current research. Students are encouraged to apply to our Master of Arts in Teaching program in Science Education (46 credits) if they earned a liberal arts degree in a scientific field and desire professional education courses to prepare for initial teaching licensure.

The Master of Education program is 36 credits and is primarily geared for those who already have licensure or who seek to be involved in informal and formal science education without licensure.

Our Science Educational doctoral program emphasizes the development of research skills and prepares individuals for post-secondary positions in community or technical colleges and in teacher training colleges and universities. Our doctoral graduates also serve as leaders in public school science education.

Required Courses for the MAT

Three graduate courses (16 semester credits) at the Graduate School of Arts and Sciences in the academic field of specialization:

SCIENCE EDUCATION

SED ED 500	Foundations of Educational Practices plus ED 501 Laboratory
SED DS 502	Introduction to Adolescent Development
SED SE 510	Special Education: Curriculum and Instruction
SED SC 511/571	Science Methods I
SED CT 575	General Methods of Instruction, 5-12
SED SC 572	Curriculum and Special Methods for Science Education 5-12 (Science Methods II)
SED RS 600	Perspectives on Inquiry Student-Teaching Practicum (8 semester credits)

Required Courses for the Ed.M.

SED RS 600 Perspectives on Inquiry
3 Courses in Curriculum and Teaching
5 Electives Selected with Advisor's Consent

Required Courses for the CAGS

Research course
3 Courses in Curriculum and Teaching
4 Electives Selected with Advisor's Consent

Required Courses for the Ed.D.

2 SED ED 700 Courses
CT 750 Basic Principles for Curriculum and Teaching
3 Research Courses
9 Courses Approved by Advisor

Practicum

Boston University enjoys long-standing relationships with many inner city and suburban school systems in Greater Boston that offer our students rewarding field experiences under the guidance of expert teachers and faculty. Science education students placed in area schools for their student teaching practicum assignments are highly sought after by many public school science chairs for employment as full-time teachers.

The School of Education reserves the right to determine whether a student is fully prepared to enter any professional field experience. This would include passing the SED Literacy Test prior to starting the practicum.

Related Research Programs

International Symbiosis Society

The International Symbiosis Society is made up of researchers and educators from more than two dozens nations. Their main subject field is symbiosis intimate partnerships

among different organisms in nature. Examples include corals and their dinoflagellate algae, mycorrhizal fungi and plants, and lichens. The Society sponsors a major international meeting every three years, publishes a news journal twice a year, and conducts symbiosis-related workshops, and produces classroom materials for teachers at all levels. School of Education Professor Douglas Zook is the President of the International Symbiosis Society.

Microcosmos Project

The unique Microcosmos Project is an international effort directed by Dr. Douglas Zook that has developed new curricula and materials infusing the important world of microorganisms into the classroom. The program shows how the unseen world of microorganisms, upon which we all depend, can be a dynamic vehicle for stimulating interest in the natural sciences in children and adults.

Frequently Asked Questions

Q: Will I become licensed to teach?

A: Students who complete Boston University's state-approved teacher licensure program are eligible for licensure in Massachusetts and may be eligible for licensure in 44 other states through a reciprocal agreement. Faculty advisors are prepared to assist students seeking licensure. Students are required to complete an appropriate course selection to meet the licensure standards and any additional Massachusetts Board of Education requirements.

Q: What are the qualifications for graduate admission?

A: Applicants are considered on the basis of their total application. Your statement of qualifications and objectives should be carefully prepared and should make clear why you wish to study in and pursue a career in the field of science education. Your recommendations and graduate test scores round out the application package. For your graduate test scores, you must complete either the general test of Graduate Record Examination (GRE), or the Miller Analogies Test (MAT), if you have not taken either test within the last five years.

Contact:

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For more information about the School of Education, visit www.bu.edu/education.