

DEPARTMENT OF EDUCATION



**FACULTY AND STUDENT
HANDBOOK OF
PROGRAMS AND DEGREES**

2011-2012

Dear Graduate Student,

Welcome to Tufts University!

On behalf of the faculty and staff, we are pleased that you have decided to become one of our Graduate Students.

This handbook has been prepared to provide you with a brief overview of all graduate programs offered by the Department of Education. It also supplies general information on relevant University services, policies, and procedures.

Students are advised to refer to the Tufts Graduate Student Handbook, the Tufts University Bulletin, and the Department of Education website (ase.tufts.edu/education/) for detailed information related to programs, faculty, projects, events, academic policies, admission and financial aid information, and other matters related to the Department.

We hope that you will find your experiences at Tufts both personally and professionally rewarding. We look forward to seeing you in the Department.



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PROGRAMS AND DEGREES

The Department of Education at Tufts University offers students the opportunity to examine current concepts in educational theory, practice, and research. Courses in the Department focus on the study of how students learn in different content areas, on the institutions that serve children and youth, on the cultural, historical and philosophical influences on education, and on concepts leading to effective professional practice.

Course offerings are complemented with opportunities to observe and work in a variety of educational settings as teachers, school psychologists, museum educators, curriculum developers, and researchers.

The Department offers the following degrees:

- Master of Arts in Teaching at the Elementary, Middle, and High School levels
- Master of Arts in Teaching, Tufts/Newton Teacher Residency
- Master of Arts in Teaching, Tufts/Advanced Math and Science Academy Charter School
- Master of Arts, Tufts/Shady Hill Cooperative
- Master of Arts in German with Teacher Licensure
- Master of Arts/Educational Specialist in School Psychology
- Master of Arts in Museum Education
- Master of Arts in Educational Studies
- Master of Arts in Science Education
- Master of Science in Mathematics, Science, Technology, and Engineering Education
- Doctor of Philosophy in Mathematics, Science, Technology, and Engineering Education

TEACHER PREPARATION PROGRAMS

GRADUATE AND LICENSURE REQUIREMENTS

Teacher licensure in Massachusetts is currently based on Professional Standards for Teachers identified by the Massachusetts Department of Education. These standards define the pedagogical and other professional knowledge and skills required of all teachers. In addition, **Subject Matter Knowledge Requirements** define the knowledge required in the subject area. An undergraduate major in one of the academic areas usually fulfills most of the subject matter knowledge requirements for teacher licensure. Candidates interested in our teacher education programs can discuss their baccalaureate work with advisors in Education and Arts and Sciences departments to determine their preparation in the subject they wish to teach. All candidates need to take additional coursework at the graduate level to satisfy subject matter knowledge requirements.

The Professional Standards describe what teachers need to know and be able to do to be successful in the classroom and as a professional in the field of education. They include: **Planning Curriculum and Instruction, Delivery of Effective Instruction, Managing Classroom Climate and Operation, Promoting Equity, and Meeting Professional Responsibility.** These standards are achieved through the required courses in education.

It is important to keep in mind that candidates in the teacher education programs must fulfill two sets of requirements: (1) requirements for Massachusetts Teacher Licensure through the approved program of study at Tufts; and (2) requirements for a Tufts graduate degree. To be eligible for teacher licensure, the candidate must successfully complete the approved licensure program and pass the required Massachusetts Tests for Educator Licensure (MTEL) administered by the Massachusetts Department of Education. To be eligible for a Tufts' Master of Arts in Teaching, the candidate must successfully complete the academic and clinical course requirements for the degree.

MASTER OF ARTS IN TEACHING

Middle and High School

Tufts University Department of Education offers a Master of Arts in Teaching program for candidates who are seeking Initial Teacher Licensure at the middle (grades 5-8) and high school (grades 8-12) levels. The program provides a sequence of courses that has been approved by the Massachusetts Department of Education.

Grades 5-8 and 8-12

in the following subject areas:

- Biology
- Chemistry
- Earth Science
- Engineering
- English

Grades PreK-8 and 5-12

in the following subject areas:

- Foreign Languages
- French
- German
- Japanese
- Spanish

- History
- General Science (grades 5-8 only)
- Latin and Classical Humanities (grades 5-12 only)
- Mathematics
- Physics
- Political Science/Political Philosophy
- Visual Art

These M.A.T. programs are ordinarily completed within one academic year and two summer semesters, but candidates may choose to extend their studies and student teaching for a longer time period. The program requires completion of **ten** to **twelve** course credits. Advisors work with candidates to ensure that their coursework meets all the requirements for Massachusetts licensure. Between **two** and **four** of the required courses must be in the **academic field** in which licensure is sought. **Eight** of the required course credits are in **education**, including field-based experiences.

Upon matriculation into graduate study, each M.A.T. candidate will be assigned a faculty advisor in the Tufts Department of Education and a faculty advisor in the academic department representing the subject area for which licensure is sought. Questions about meeting the **Subject Matter Knowledge Requirement** are addressed through meetings with these advisors.

Pre-Service Field Experience

Faculty members of the Tufts teacher education programs believe an essential component of a strong teacher preparation sequence is the opportunity to practice teaching in schools and then reflect with colleagues on the intellectual nature of teaching. Tufts pre-service teachers are able to work intensively in school communities with whom the Tufts Department of Education has developed significant collaborations. Generally, M.A.T. candidates work one day a week in a school site in the fall semester and become full-time pre-service teachers in the spring semester. Field experiences provide pre-service teachers with opportunities to try a variety of teaching techniques, to develop relationships with students and faculty, and to reflect critically on curriculum and assessment.

The students' teaching practicum in the spring is the capstone experience of the Tufts teacher preparation programs. The practicum includes at least 300 hours in a school setting working with a teacher licensed in the appropriate subject area and grade level. Pre-service teachers become important members of the school community. They teach courses, develop innovative curriculum, work as tutors, assist as club advisors and coaches, attend parent conferences, and chaperone social events.

In the spring term, pre-service teachers register for Education 102: Supervised Teaching in Middle and Secondary School. The seminar provides an opportunity for them to reflect upon the practicum experience and the issues related to their personal and professional development. Within the context of the seminar, students receive advice and support from their peers and the seminar leader. The leader also provides guidance on

developing the pre-professional portfolio which can be used for interviews with prospective employers.

Experienced cooperating teachers, Tufts University supervisors, and other professionals all share in the responsibility for on-going assessment of the pre-service teachers' progress in demonstrating the Professional Standards for Teachers required by the Massachusetts Department of Education for licensure. The goal is to train future educators to become leaders in their field who understand the important role that teachers play in the lives of students and their families.

Urban Teacher Training Collaborative (UTTC)

Some students in the middle and high school M.A.T. program participate in the Urban Teacher Training Collaborative (UTTC). The UTTC is an innovative school-university partnership developed by Tufts University in conjunction with middle and high schools in Boston, Malden, and Somerville. The UTTC program is an example of the Professional Development School model, which includes full-year internships similar to the residency model used to train medical personnel in teaching hospitals. The internships require students to be available for curriculum planning with their mentor teachers in late August, and interns work as valued staff members in their school sites through mid-May. The UTTC is committed to developing effective, collegial, and reform-minded teachers for urban schools. Participation in the UTTC is contingent upon placement availability and an interview process.

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/teacherPrep/courseReqsMATmiddleHigh.asp>

MASTER OF ARTS IN TEACHING

Elementary School

The Department of Education announces a newly revised elementary school-level STEM teacher preparation program. Graduates receive a Master of Arts in Teaching (M.A.T.) degree and initial licensure for grades 1-6. Candidates must show strength in science, mathematics, or engineering, demonstrated through course work, projects, research activities, and/or commitment and interest.

This 12-month program builds on the Department's commitments to urban education and teaching for social justice, with an emphasis on STEM disciplinary practices. Each candidate will have the option of carrying out a full-year "residency model" practicum (amassing more than 425 hours of classroom experience), supported by a stipend, or working in a traditional "student teaching" arrangement.

Much as doctors begin with the study of how bodies work, the STEM Elementary Education program begins with the study of how minds work, and proceeds from there to develop practices of close attention and responsiveness to children's ideas, reasoning, and engagement. Program faculty see children as nascent scholars and the core of teaching as eliciting, recognizing and cultivating the productive resources children bring with them into the classroom. Along with STEM disciplines, the program is designed to address multiple literacies, integrating reading, writing, and art throughout the curriculum. In addition to curricular issues, students in the program will be encouraged to think critically about issues such as matching children's learning needs with instruction, promoting equity, effective classroom management, and establishing and maintaining productive, respectful relationships with parents, communities, and school faculty and staff.

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/teacherPrep/MATelementary.asp>

MASTER OF ARTS IN TEACHING

Art Education

The Master of Arts in Teaching, Art Education concentration is offered by Tufts University in affiliation with the School of the Museum of Fine Arts (SMFA), Boston, Massachusetts. The program is intended for candidates whose goal is to teach visual art to children and adolescents in school settings. It is a 10-12 course program that prepares candidates for teaching visual art at the **Pre-K-8 and 5-12 grade levels** and leads to eligibility to apply for Massachusetts's *initial* teacher licensure for Visual Art at one of those levels. The next level of the Massachusetts teaching licensure is the *professional license*, which may be sought after three years of teaching in the profession. The M.A.T., Art Education degree is usually completed in 12 months over the course of one academic year and one summer session, although it is possible to stretch course completion into one additional summer for a 14-month program.

The program requirements include course work in three distinct yet interwoven disciplines: education, art education and studio art as well as field experiences in student teaching called the pre-practicum and full practicum. The education courses are completed in the summer on the Tufts campus in the Department of Education, while the Art Education courses and studio art coursework are completed at the SMFA. The pre-practicum and full practicum experiences are comprised of engagement with cooperating art teachers in school art programs, with an abbreviated pre-practicum at the Museum of Fine Arts, Boston. The academic year can be organized into three parts:

1. The Summer at Tufts University in the Department of Education
2. The Fall at the SMFA in studio courses and Art Education course work
3. The Spring in the public school with SMFA Art Education course work in the evening

MISSION of M.A.T. Art Education Concentration

The mission is to advance art education as a transformative practice in schools and communities that asserts student voice, demonstrates critical perspectives on visual culture, affirms cultural knowledge through multiple ways of knowing, and expands student skills in art and academics for full participation in a democratic society.

OBJECTIVES

The objectives for students of the Tufts/SMFA M.A.T., Art Education concentration aim to carry out the mission through the following practices:

- To develop your critical, scholarly knowledge and reflective, pedagogic skills through the lens of multicultural art education while considering the role of visual culture in the lives of PK-12 school students and their communities. To consider art making and art teaching in a sociopolitical context.
- To meet all requirements for you to be eligible to apply for Massachusetts Initial Teacher Licensure in Visual Art for either grades PK-8 or 5-12.
- To complete all your coursework and academic requirements while meeting the expectations of the Tufts Graduate School of Arts and Sciences. This includes meeting all objectives stated on all course syllabi, achieving grades of B- or higher, participating in a community of scholarly collegiality and satisfying academic deadlines.
- To develop and expand your interpersonal competencies by demonstrating your capacity to work effectively with fellow students and educators in graduate school and PK-12 school settings. This includes establishing healthy, responsible, productive communication skills and working relationships with: students, faculty and staff at Tufts and the School of the Museum of Fine Arts, Boston, as well as with cooperating teachers, students, faculty, staff and administrators in the school practicum setting. This also includes managing your own physical and mental self-care in order to meet these interpersonal competencies.
- To develop and expand your professional competencies by demonstrating your capacity to meet all professional expectations of a teacher in a school setting including all items listed in the Commonwealth of Massachusetts DESE Department

of Elementary and Secondary Education Standards for Teacher Licensure which are articulated on the PPA (Pre-service Performance Assessment for Practicum See DESE Professional Standards for Teachers: See 603 CMR 7.08.):

1. Standard A – Plans Curriculum and Instruction
2. Standard B – Delivers Effective Instruction
3. Standard C – Manages Classroom Climate and Operation
4. Standard D – Promotes Equity
5. Standard E – Meets Professional Responsibilities

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/teacherPrep/courseReqsMATvisualArt.asp>

MASTER OF ARTS

Tufts/Shady Hill Cooperative

The Tufts Department of Education and the Shady Hill School cooperate in a joint Master of Arts program that allows participants to student teach as apprentices and work closely with the Shady Hill School in Cambridge for the duration of the entire school year.

Applicants must apply to both the Shady Hill School and to Tufts University. Shady Hill School apprentices register for credit for their work as apprentices through **10** course credits, and are eligible to apply for teacher licensure for grades 5-8.

Apprentices who wish to be licensed for grades 8-12 must complete additional student teaching for at least 150 hours. Tufts will attempt to arrange this additional student teaching in the summer following the apprenticeship year. However, such additional activity is not included in the program tuition and will require summer registration and payment of summer school tuition.

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/teacherPrep/courseReqsMAshadyHill.asp>

Tufts/Newton Teacher Residency

Tufts University Department of Education and Newton Public Schools collaborate on a program to prepare high school teachers to become effective classroom practitioners and supportive colleagues in their schools. This program, designed with financial support from the Massachusetts Department of Education, includes a year-long residency model of practice teaching in Newton North and South High Schools through the Newton Teacher Residency (NTR). To learn more about the NTR program visit www.newtonteacherresidency.org/.

Candidates must apply, simultaneously, to the Newton Public Schools NTR and to the Tufts Graduate School of Arts and Sciences Masters of Arts in Teaching Program for middle and high school. Students admitted into both programs must complete 10 to 12 credits for their degree. Four of these credits are school site, pre-professional practice

credits which will be completed in the NTR. Six to eight academic course credits will be completed as part of the Tufts M.A.T. program. Candidates are expected to take 4 to 5 semesters to complete their academic work.

Candidates will have an academic advisor at Tufts University as well as an on-site mentor at Newton North High School.

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/teacherPrep/courseReqsMAnewtonNTR.asp>

Tufts/Advanced Math and Science Academy Charter School

Tufts University Department of Education and the Advanced Math and Science Academy Charter School (AMSACS) in Marlborough, Massachusetts (<http://www.amsacs.org/>), offer a program to prepare mathematics and science teachers. This program includes a year-long residency model of practice teaching through the AMSACS Math and Science Teacher Residency Collaboration (MSTRC). The AMSACS MSTRC, designed with financial support from a private donor, provides a residency model of pre-professional training under the supervision of experienced mentor teachers.

Candidates must apply simultaneously to the AMSACS MSTRC and Tufts Graduate School of Arts and Sciences M.A.T. program for middle and high school licensure. Candidates admitted to both programs are required to complete 10-12 credits. Four of these credits are school site, pre-professional practice credits to be completed at the AMSACS. Six to eight academic course credits are at Tufts M.A.T. program.

Candidates are expected to take four to five semesters to complete their academic work. They will have education and content area advisors at Tufts University as well as an on-site mentor at AMSACS.

For a list of course requirements, visit:

http://ase.tufts.edu/education/programs/teacherPrep/courseReqsMAT_AMSACS.asp

German with Teacher Licensure

Tufts University offers a two-year Master of Arts degree in German with teacher licensure. Students take a total of fourteen credits: six courses in the Department of German, two courses in the methods and practices of teaching foreign language cross-listed in both the Departments of German and Education, and six courses in the Department of Education, including the one semester teaching practicum. The degree is formally offered through the Department of German, Russian, and Asian Languages and Literature. Prospective students should contact Dr. Bernhard Martin, faculty advisor in the Department of German, Russian, and Asian Languages and Literature.

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/teacherPrep/courseReqsMAgerman.asp>

UNDERGRADUATE LEVEL TEACHER LICENSURE

(This program is currently being restructured and is not admitting students.)

Undergraduates can complete requirements for Massachusetts initial licensure as an elementary teacher (grades 1-6). The elementary licensure program is a Tufts joint program with the Departments of Education and Child Development. Students are encouraged to enroll in ED 001 School and Society and/or ED 011 Observing Theory in Action prior to entering the teacher licensure program.

Admission to the program is contingent on evidence of competence in oral and written English, the attainment and maintenance of at least a 3.0 grade point average in the discipline, and the feasibility of completing the academic and professional courses required for Massachusetts licensure. Undergraduates interested in undertaking the elementary licensure program should meet with their program advisor during their sophomore year to ensure that all requirements for subject matter knowledge, as well as education courses, are completed.

Each undergraduate candidate earns a Bachelor of Arts or Bachelor of Science while completing required course work and field experiences for initial teacher licensure in Massachusetts. They join graduate candidates for course work in elementary curriculum and practica seminars during their senior year.

Undergraduate candidates complete 11 course credits: 1 in educational theory; 2 in child development theory, 1 in culture and learning issues, 1 in special needs and learning differences, 5 in elementary curriculum content and pedagogy, and 1 in academic disciplines relevant to elementary teaching. In addition, in compliance with regulations for initial elementary licensure in Massachusetts, students fulfill 36 semester hours (9 courses) in arts and sciences course work judiciously distributed across the disciplines of English composition, American and world literature, U.S. and world history, geography, economics, U.S. government, science and mathematics. Meeting these requirements can be coordinated with meeting the distribution, foundation, and in some cases, major requirements for a Tufts liberal arts baccalaureate degree. Academic advising must begin in an undergraduate's sophomore year in order to successfully comply with Massachusetts Department of Education regulations as well as meet Tufts academic and Elementary Program requirements.

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/teacherPrep/MATelementary.asp>

SCHOOL PSYCHOLOGY PROGRAM

MASTER OF ARTS/EDUCATIONAL SPECIALIST

The School Psychology Program is a three-year, twenty-four course program leading to the Master of Arts (M.A.) and Educational Specialist (Ed.S.) degrees, as well as institutional recommendation for initial licensure in Massachusetts. The M.A. degree requires completion of 13 courses, as well as a 150-hour pre-practicum experience. The Ed.S. degree requires completion of 11 additional courses, including a 600-hour practicum and a 1200-hour internship. The program is fully approved by the National Association of School Psychologists and the Massachusetts Department of Elementary and Secondary Education. When students complete the program they are eligible to apply for the initial license in Massachusetts, and must meet any other state requirements. Upon completion of the internship, students are encouraged to apply for national certification as a school psychologist.

AREAS OF STUDY

Social, Psychological, and Educational Foundations of School Psychology Practice

Measurement and Assessment

School-Based Prevention and Intervention

Professional School Psychology

Research

Field-Based Learning in School Psychology

COURSE SEQUENCE

ED230 Found of Learning, Cognition, and Acad. Intervention
 ED160+ Social and Cultural Foundations of Education
 ED 245 Social and Emotional Dev. in Childhood and Adolescence

ED 253 (or CD 156) Biological Bases of Behavior
 ED 254 Developmental Psychopathology
 ED 142 Education of the Exceptional Child

ED 241 Foundations and Contemporary Practices in Psychoeducational Assessment

ED 243 Assessment of Cognitive Abilities
 ED 244 Assessment and Intervention for Learning Problems¹
 ED 246 Social, Emotional, and Behavioral Assessment

ED 140 Behavior Management in the Classroom
 ED 237 Common Factors in Counseling
 ED 238 Advanced Approaches to Counseling
 ED 252 Group Dynamics in Educational Settings
 ED 256 Consultation in the Schools

ED 249 Issues in Multicultural Research, Theory, and Practice in Schools²

ED 255 Professional Practice, Ethics, and the Law in School Psychology

ED 274 Methods of School Psychology Research
 ED 275 Seminar in Advanced School Psychology Research

ED 221 Pre-practicum and Seminar
 ED 231/232 Practicum and Seminar
 ED 257/258 Internship and Seminar

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/schoolPsych/CourseReqYear1.asp>

¹ ED 244 is an integrated course focusing on assessment for intervention.

² ED 249 is an integrated course focusing on issues of school psychology practice and intervention in contexts of cultural diversity.

MATHEMATICS, SCIENCE, TECHNOLOGY AND ENGINEERING EDUCATION PROGRAM

Master of Science, Doctor of Philosophy, Master of Arts, and Certificate

The graduate program in Mathematics, Science, Technology, and Engineering Education (MSTE Education) grants M.S. and Ph.D. degrees in Mathematics Education, Science Education, and Engineering Education. It also offers an M.A. and Certificate in Science Education for in-service K-8 teachers.

The program involves the collaboration of Tufts Departments of Education, Child Development, Mechanical Engineering, Computer Science, Biology, Chemistry, Mathematics, and Physics and Astronomy, the Center for Engineering Educational Outreach, and the Center for Science and Mathematics Teaching.

MASTER OF SCIENCE

Mathematics, Science, Technology, and Engineering Education

The Master of Science in MSTE Education program prepares educators to work in the development of curriculum materials and research, in formal and informal science education, in research centers, museums, industry, cultural institutions, and community agencies. It also prepares future candidates to Ph.D. programs.

Students without a baccalaureate in Mathematics, Science, or Engineering are required to take additional courses in order to reach a level of expertise equivalent to that of a Tufts B.A. major in the content area they want to develop their M.S. program.

Each student is required to complete 12 course credits to fulfill the requirements for the degree of M.S. in MSTE Education. These include 6 courses from Groups A, B, C, D, and F, 4 or 5 elective courses from Group E, and 1 or 2 course credits for masters Thesis, Project, Research, or Internship. M.S. students are to complete one year of the Program Seminar (ED222 and ED223).

Choice of relevant elective courses and course levels is determined by the students' advisors and the Graduate Program Committee.

The maximum time limit for full-time students to complete the M.S. program is three years.

We welcome applications from our M.S. students to the Ph.D. program. Because they are students from within the program, it may be possible to waive the need for letters of reference. However, students who apply should understand that they enter the overall pool of applicants, from which we typically admit five students per year. Even excellent candidates who apply as M.S. students will not be admitted unless they have a mentor. Ph.D. students will be expected to work closely with faculty in the education department AND in the content discipline. All relevant course credits obtained by successful candidates while enrolled in the M.S. program will count towards the Ph.D. degree.

Alternatively, M.S. students may complete the M.S. degree requirements and, upon receiving the M.S. degree, submit an application to the Ph.D. Program.

DOCTOR OF PHILOSOPHY

Mathematics, Science, Technology, and Engineering Education

The Ph.D. program in MSTE Education prepares educators, researchers, and university faculty in the areas of Mathematics Education, Science Education, or Engineering Education.

Each student is assigned two program advisors, one from the Departments of Education or Child Development and another from the Mathematics, Sciences, or Engineering Departments.

The Ph.D. degree requires 20 course credits: 16 credits from Groups A, B, C, D, E, and F and 4 credits for dissertation work. Students are also required to develop two qualifying papers of publishable quality, as judged by the student's program advisors, by his/her Dissertation Committee (if already chosen), or by the student's advisors and at least two other faculty/researchers, experts in the subject area of the papers.

Candidates without a baccalaureate in the content area they want to develop their Ph.D. dissertation will be required to take additional courses to reach a level of expertise equivalent to that of a Tufts B.A. major in that area.

The Dissertation Committee, chosen in accordance with the Graduate Program Committee guidelines, will be constituted by: two faculty from the Department of Education, or one from the Department of Education and one from the Department of Child Development; one faculty from Tufts Departments of Mathematics, Sciences, or Engineering; and one outside reviewer. Chairs of Dissertation Committees should preferably be faculty from the Department of Education or from the Department of Child Development. The committee chair is normally a full-time, tenure-track faculty member from the department. Students are required to select the Chairperson of their Dissertation Committees before beginning the third year of studies or, if they have entered the program with a Master's degree in hand, before beginning the second year of studies.

Students with a master's degree may be granted waivers for up to eight course credits. Transfer of isolated graduate course credits will be granted for up to two course credits.

The maximum time limit for full-time students to complete the Ph.D. program is six years.

For a list of course options, visit:

<http://ase.tufts.edu/education/programs/research/MSTECourseOptions.asp>

MASTER OF ARTS

Science Education

The Department of Education offers two graduate programs aimed at in-service K-8 teachers who desire further education in science and the pedagogy of science at the elementary and middle school levels.

The Certificate in Science Education and Master of Arts in Science Education programs are a strand of the graduate program in Mathematics, Science, Technology, and Engineering Education and are aimed at students whose primary interest lies in classroom instruction. The programs are designed for currently practicing K-8 classroom teachers with a minimum of two years teaching experience and with Initial Teacher Licensure at Pre-K-2, 1-6 levels, or 5-8 level in math/sciences. The programs are of particular interest to those teachers who are seeking a graduate degree to fulfill requirements for Massachusetts Professional Licensure as they continue to teach.

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/research/MSTema.asp>

EDUCATIONAL STUDIES PROGRAM

Master of Arts

The Tufts University Department of Education offers an interdisciplinary Master of Arts in Educational Studies. Students working toward the M.A. explore education as a site of critical scholarly analysis through the disciplinary strands of the field, including: history, sociology, anthropology, psychology, and philosophy. The program offers students the opportunity to examine a range of education topics in relation to the study of race, gender, sexuality, class, and other categories of identity, culture, and institutional and structural power. Additionally, students are trained to engage these topics through theoretical frames such as feminist and queer theories, Critical Race Theory, socio-cultural theories, and others.

The Educational Studies program is designed for students who wish to continue on to advanced studies and research in education, for in-service teachers who wish to develop scholarly understandings of schooling, and for applicants interested in educational careers in areas other than classroom teaching. Students completing the M.A. in Educational Studies will:

- develop critical understandings of school as a site of inquiry and study;
- become broadly familiar with the bodies of scholarship that constitute the foundations of Education; and,
- build emerging expertise in one area of theory and one topic of study.

Students undertaking the M.A. in Educational Studies will be expected to work collaboratively with their advisor to design a course of study and independent research questions that guide coursework and culminate in a scholarly paper or thesis. Proposals for the paper or thesis must be approved by the program director, academic advisor, and paper or thesis advisor by the last day of courses the semester prior to the study. Students are required to take a total of ten courses.

Specific research topics being developed by our faculty include:

- Gender studies examined through historical, philosophical, political, and socio-cultural lenses
- Critical policy and practice investigations related to urban education
- Theoretical scholarship emphasizing feminist theory, Critical Race Theory, and qualitative methodologies
- Social context of education analyses, with particular attention to race, gender, and class

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/research/eduStudiesCourseReqs.asp>

MUSEUM EDUCATION PROGRAMS

Master of Arts

The Master of Arts in Museum Education is designed for those interested in careers in educational programs for audiences of all ages in art, history, science, and children's museums. The program requires 11 courses and a field-based internship in a museum setting as preparation for employment as museum educators. Internships may take place in any type of museum.

Graduate Certificate

The Office of Graduate Studies at Tufts University offers a graduate-level certificate program in Museum Studies. This program consists of four courses and an internship. Although it does not lead to a graduate degree, courses taken as a certificate student can be applied to the graduate program in Museum Education if the student is admitted into the Master of Arts in Museum Education program. For more information, see <http://ase.tufts.edu/museumStudies/>.

For a list of course requirements, visit:

<http://ase.tufts.edu/education/programs/museumEd/courseReqs.asp>

GENERAL INFORMATION

The Graduate School of Arts and Sciences

The Graduate School of Arts and Sciences is the academic and administrative unit responsible for all phases of post-baccalaureate education of the School of Arts and Sciences. Applications for admission, petitions for leave, continuation and transfers of credit, and filing for degree applications are all handled through the Office of Graduate Studies, Ballou Hall.

Graduate Student Activities and Associations

To foster interaction between students within programs, Departments at Tufts University offer opportunities to attend lectures, social events, and various activities in and around the campus. Events sponsored by Departments are usually advertised via e-mail, and/or posted on flyers or on the Department's website.

The Graduate Student Council

The GSC was formed to serve the graduate students of Tufts University by providing social, cultural, and educational opportunities. To stay up to date on all GSC events, please subscribe to the graduate student list server: Send an E-mail to gsc@tufts.edu, with subject: SUBSCRIBE GSC listserv. In the body of the E-mail, list your first and last name and your preferred e-mail address. For more information, visit <http://ase.tufts.edu/gsc>.

University Resources

Libraries

Tisch Library, the Graduate School of Arts and Sciences library, is an excellent campus resource. Tisch Library offers a reference collection of both print and electronic resources, as well as a full range of services, including photocopiers, document delivery, lockers, and much more. Many courses require you to use reserve materials which are held at the Circulation Desk in the library lobby. A tour of the library system for new students is available during fall orientation week.

Students and faculty also have access to the 16 academic and research libraries belonging to the Boston Library Consortium, and through Interlibrary Loan to library collections throughout the country and abroad. Please refer to <http://www.library.tufts.edu/tisch/> for a complete description of library facilities and collections.

The Academic Resource Center

The Academic Resource Center, located in Dowling Hall, provides academic support to Tufts undergraduate and graduate students. Professionals are available to assist students with studying techniques, time management, and learning support. The Center also has a list of resident tutors available to assist with many classes. Please visit the Center to receive detailed information about their services.

Media Center

The Media Center, located in Paige Hall on the Medford Campus, offers an opportunity for students to obtain information and acquire hands-on experience with state-of-the-art curricula, technological tools, and other educational materials in different areas of expertise and professional activity.

Information Technology Services

The ITS Computing Center at Eaton Hall houses multiple workstations which consist of Dell Pentium III PCs and G3 iMacs. Also available are multimedia workstations, PC scanners, a Macintosh scanner, and centralized printing from all applications including the Internet.

The Mugar Computer Lab located at the Fletcher School of Law and Diplomacy is a graduate student only lab that houses PCs, Macintosh computers, and a digital scanner. Two additional classroom labs located in Jackson Hall and the Tisch library are available for faculty instruction and ITS training. Lab hours are posted in the labs and on the web.

Center for Engineering and Educational Outreach

The members of the Center for Engineering Education and Outreach (CEEEO) are dedicated toward improving engineering education in the classroom; from Kindergarten to college. The CEEEO is a leading innovator in K-16 engineering education. They inject engineering learning into K-16 classrooms to change how students think and learn today, ultimately shaping how they invent tomorrow. CEEEO believes all students are budding innovators who will excel by learning through failure, working in teams and solving problems. The CEEEO has a mix of Education faculty and MSTE graduate students and Engineering faculty and graduate students conducting a research program aimed at understanding how kids and adults learn engineering. This research then informs our development of various educational tools. We collaborate with a number of companies to bring these tools into the classroom and then our outreach arm works with teachers around the world to further refine these tools and to support the teacher-user community. The CEEEO's innovative curricula, educational tools and research are sought by educators, administrators and corporations around the globe. Known for inspiring students to engineer at a young age, the impact of the CEEEO's work can be felt worldwide.

Center for Science and Mathematics Teaching

The Center is an associated facility of the Department of Education and is located in the Science and Technology Center at 4 Colby Street on the Medford campus. The Center is involved in evaluating and developing new methods and materials for the teaching of science and mathematics, particularly in the area of microcomputer-based instruction. The Center offers national and international workshops for teachers and professors and conducts research on student conceptual learning. Research Professor Ronald Thornton is the Director of the Center.

The Mayer Campus Center

The Mayer Campus Center is an ideal place to take a break. The Center houses a cafeteria, pizza shop, coffee shop, an information booth, mail drop, lockers, and a lounge with a television. Please note that their hours vary according the academic calendar.

University Bookstore

Located in the Mayer Campus Center, Professor's Row, the University bookstore provides the Tufts community with books and other educational supplies. Special orders for books can be arranged if a book is not commonly stocked. Questions regarding special orders should be directed to the manager or assistant manager. In addition, the bookstore offers a variety of paperbacks, records, clothing, toiletries, gift items, artist's supplies, etc.

E-mail

E-mail accounts are automatically assigned for all registered students. This method of communication is preferred within the Department of Education. In order to obtain a user ID and password, students must visit the Eaton Computer Lab during regular business hours. Accounts will remain active as long as a student is registered.

Student Identification Cards

Student I.D. cards are available from the Office of Public Safety at 419 Boston Avenue with a clearance sticker from the Bursar's Office and a government issued I.D. card. I.D. cards are necessary for the use of University facilities.

Academic Policies

Academic Standing

More than one B- on a transcript: It is expected that a student will complete all courses taken for credit with the grade of B- or better. If a student has more than one B- on their transcript, the program director and department Chair will assess the student's ability to meet degree requirements and make recommendations concerning the student's academic standing to the student, the department, and the Graduate School. The records of students who have been reviewed will be reassessed at the end of the following semester to determine whether sufficient progress has been made toward the degree sought. If sufficient progress has not been made, the department will recommend to the graduate dean that the student be administratively withdrawn.

Grades below B-: Courses for which a student receives a grade lower than B- may be retaken only once. The original grade earned remains in the student's record. Students who receive a grade below a B- in a course will be reviewed by the program director and department Chair. The program director and department Chair will assess the student's ability to meet degree requirements and make recommendations concerning the student's academic standing to the student, the department, and the Graduate School. The records of students who have been reviewed will be reassessed at the end of the following semester to determine whether sufficient progress has been made toward the degree

sought. If sufficient progress has not been made, the department will recommend to the graduate dean that the student be administratively withdrawn. If a student receives two grades or more lower than B-, the program director and department Chair will automatically recommend to the graduate dean that the student be administratively withdrawn.

Incompletes: Students who have more than one incomplete in any semester will be reviewed by the program director and department Chair. The program director and department Chair will assess the student's ability to meet degree requirements and make recommendations concerning the student's academic standing to the student, the department, and the Graduate School. The records of students who have been reviewed will be reassessed at the end of the following semester to determine whether sufficient progress has been made toward the degree sought. If a student has an incomplete in a course after a second semester the department will recommend to the graduate dean that the student be administratively withdrawn.

Course Change

It is possible to ADD a new course or DROP out of one course and enroll in a new one during the first two weeks of the semester. Deadlines for adding a course are listed in the academic calendar. To add and drop courses, log into your student SIS account to make any changes to your schedule. Include your additional tuition payment, if applicable. There is no record of enrollment if the course is dropped by the designated date on the academic calendar. Courses dropped after this deadline will be assigned a “W” grade on the Tufts transcript.

Cross-Registration

During the academic year, full-time graduate students may take one course per semester for both a grade and credit through cross-registration agreements with the Fletcher School of Law and Diplomacy, the Friedman School of Nutrition Science and Policy, the Sackler School of Graduate Biomedical Sciences, Boston College, Boston University, and Brandeis University. Cross-registration forms and course schedules are available at the Student Services Center. **It is not possible to cross-register during the summer terms.**

Extension of Degree Time

Extension of time is granted for no more than one year and must have the written support of the student's advisor/chairperson. To request an extension of time to complete the degree requirements, a student must complete a Request for an Extension of Time form available online at <http://gradstudy.tufts.edu/studentservices/forms.htm> and submit it to their department for approval. For further information on extension of degree time, please refer to the Tufts Graduate Student Handbook.

Graduate Student Travel Funds

Travel reimbursement grants (for up to \$400) are available to doctoral or master's degree candidates who have had an accepted paper presentation of their research at a conference or professional meeting. Smaller grants (up to \$200) are available for graduate students

who are not presenting their work but attending professional meetings or for specific research trips. Application and documentation is required for all grants and detailed guidelines and an application form can be found online at <http://gradstudy.tufts.edu/researchteaching/opportunitiesattufts/gradStudentTravel.htm>.

Requests must be made at least two weeks in advance of travel and require the approval of the Dean of Arts and Sciences. Awards are limited and made on a first-come, first-served basis and given only once per student per academic year (July-June). Funds for these grants are provided by the Office of Graduate Studies and the Graduate Student Council and they are administered through the Office of Graduate Studies (Ballou Hall, 617-627-3106).

Incomplete Grades

An incomplete may be awarded only if the student has done work in the course, the instructor judges the reasons for granting incomplete status to be valid, and the instructor determines that the work can be completed in the time specified on the Incomplete Form. It is the responsibility of the student to request an incomplete before the due date of the required work. If an incomplete is granted, all work in the course must be completed on or before the date six weeks after the first day of classes in the subsequent semester (fall or spring only; summer terms excluded). If the student has completed the work within the stated time, it will be evaluated without prejudice. Upon the student's completion of work in the course, the instructor must submit a final grade to the registrar within eight weeks after the first day of classes of the subsequent semester. If a course is not completed by the designated time, the student will receive the default grade specified on the incomplete form. Under exceptional circumstances, an extension of the six-week deadline may be granted at the discretion of the instructor. Students who have more than one incomplete per semester will be reviewed by the department's Academic Standing Committee.

Independent Study

Students who wish to explore a topic not in the curriculum may find an instructor to guide their independent study. The student should define as clearly as possible their area of interest and should approach faculty whose interests and expertise seem closest to the topic.

Leave of Absence

A leave of absence is granted for no more than one year and must have the written support of the student's advisor/chairperson. International students may not take a leave of absence and remain in the United States. The International Center must be contacted to discuss the circumstances requiring the leave BEFORE any leave is authorized. For further information on a leave of absence, please refer to the Tufts Graduate Student Handbook.

Pre-registration

Students are encouraged to pre-register for courses for the upcoming semester. Pre-registration facilitates planning and program development. Pre-registration dates, usually

mid-November for spring semester and early April for the fall semester, are noted in the Tufts Academic Calendar. Students are expected to meet with their faculty advisor prior to pre-registration to plan for the upcoming semester.

Procedure for Awarding of Degrees

Graduate degrees are normally awarded in May, August, and February. Students who complete all their degree requirements by early October may petition the graduate office to receive their degree in November. Students are responsible for informing the graduate office of their intent to graduate by submitting a degree sheet and completing the graduate exit survey. The graduate office and academic departments reserve the right to remove from the degree list the names of candidates who have not met degree requirements. The candidates should check with the graduate office and/or their departments to make sure all requirements have been met and that they have been placed on the degree list for the appropriate award date. For detailed information on the awarding of degrees, please refer to the Tufts Graduate Student Handbook.

Transfer of Credit

Students may apply for transfer credit for graduate-level courses taken at Tufts or at other institutions. It is suggested that transfers be done early on in the semester. A Petition for Transfer of Credit form is located online at http://gradstudy.tufts.edu/documents/students_transfercredit.pdf. Where semester hours are used, one 3- or 4-semester-hour course equals one Tufts credit, and one 2-semester-hour course equals one-half Tufts credit. Where quarter hours are used, one Tufts credit equals 5.25 quarter hours. A maximum of two graduate-level courses taken either as a non-degree student at Tufts University or at another institution may be transferred and used to fulfill requirements for a master's degree, subject to the following conditions.

Credits transferred must:

- carry the grade of B- or better (courses taken as pass/fail cannot be transferred)
- have been taken following completion of the baccalaureate degree
- not have been counted toward another degree
- have been earned in graduate-level courses at a properly accredited institution
- have been taken within the past five years

All courses to be transferred must be approved by the faculty in the Department of Education and by the Graduate School Executive Committee in order to graduate. The Executive Committee reserves the right to deny transfers of credit if it determines that all criteria have not been met.

Transfer of Degree Program

Students who wish to transfer into a degree program other than the one to which they have been accepted must complete a formal request for transfer. These requests will be reviewed by the Department of Education Faculty Committee. A recommendation will be made to the Graduate School to accept or deny the request for transfer of degree.

Students will be charged additional tuition costs for any extra coursework that is required to meet the new degree requirements.

Undergraduate Course Policy

Courses at Tufts are grouped in three categories:

| | | |
|-----------|---|--|
| 001 - 099 | = | Undergraduate (<i>See Notes 1 & 2</i>) |
| 100 - 199 | = | Undergraduate and Graduate |
| 200 - | = | Graduate only |

Only courses numbered 100 or higher can be applied to graduate degrees. The only exception is students in the Department of Education teacher licensure M.A.T. program who are allowed to take up to two undergraduate level courses under the following conditions: 1) the instructor must be aware that the credit will count toward the M.A.T. degree and assign additional coursework to the student in order to satisfy graduate level requirements; and 2) the student must earn a grade of B+ or better.

NOTE 1: Experimental College courses will not fulfill requirements of the M.A.T. program.

NOTE 2: M.A.T. students must check with their advisor before registering for any under 100-level course and complete the Under 100 Course Approval Form.

Educator License Information

Licensure

Candidates in the teacher education and school psychology programs are guided by their advisors throughout their program on the procedures of applying for a Massachusetts Educator License.

Waiver for Teacher Licensure Requirements

Candidates with previous coursework comparable to the required courses may apply for a waiver of the course. Requests for waivers or substitutions of courses for teacher licensure may be made by completing a Waiver Request. Candidates are required to submit documentation of courses taken through transcripts, course descriptions, and syllabi, and to describe how these courses fulfill the teacher licensure requirements in the Tufts approved program.

No more than two courses required for teacher licensure may be waived within the candidate's program. Candidates who receive approvals for course waivers must enroll in other courses relevant to their professional preparation in order to satisfy the requirement of completing 10-12 courses for the M.A.T. degree.

A course taken previously at Tufts or at another institution may receive approval as a substitution for a required course and count toward the licensure requirement without necessarily being counted toward the degree requirement. If the candidate decides to

waive a course by providing evidence of having met the course requirements for licensure, then the candidate is free to take an elective course at Tufts to meet the 10-12-course requirement for the M.A.T. degree.

The Department is a member of the American Association for Employment in Education and The New England Association for Employment, organizations that network with personnel directors of many public school systems throughout the country and region. The Department is also an active member of the Massachusetts Educational Recruiting Consortium, which offers students and alumnae a national job fair each spring.

Glossary of Forms

Course Waiver Request

To waive a required course if similar material has been covered under a course taken elsewhere. The course waiver allows the student to take an upper level course in the same area, or some other elective discussed with their advisor.

Degree/Program Transfer Request

To transfer from one program within the Department of Education to another program within the Department of Education.

Independent Study

A form required to study or research a topic independently with a faculty member within the Department of Education. The course numbers are ED191, 192, 291, 292.

Leave of Absence

Complete if a leave of absence is needed for one or two semesters.

Petition of Transfer of Credit

A University form required to transfer credit from an accredited college or university to Tufts.

Recommendation for Award of Master's Degree (a.k.a. Degree Sheet)

An important step that needs to be completed in order to notify the University that a student has completed their program of study. Students generate this form via their SIS account by logging into Student Web Center at <http://webcenter.studentservices.tufts.edu/login.aspx>.

Subject Matter Knowledge Requirement

All M.A.T. students complete this form with their advisors at the beginning of their program.



CONTACT INFORMATION

To obtain additional information, contact the following individuals in the Department of Education. The standard e-mail convention at Tufts University is `firstname.lastname@tufts.edu`

Teacher Education (Middle and High School) Linda Beardsley
School Psychology..... Steve Luz-Alterman
Educational Studies..... Sabina Vaught
Museum Education Cynthia Robinson
MSTE Education..... Bárbara Brizuela

Art Education Patty Bode
The School of the Museum of Fine Arts
230 The Fenway
Boston, MA 02115
(617) 369-3613

Tufts/Shady Hill Cooperative Desiree Ivey
The Shady Hill School
178 Coolidge Hill
Cambridge, MA 02138
(617) 868-1260

**DEPARTMENT AND AFFILIATED TELEPHONE NUMBERS
AREA CODE (617)**

Main Number 627-3244
Facsimile Number 627-3901

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Patty Bode 369-3613
Steven Cohen 627-5775
Brian Gravel 627-4201
David Hammer 627-2396
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Staff

Carole Bersani, Program Manager, Fulcrum Institute 627-3039
Pearl Emmons, Multimedia Specialist 627-4383
Philip Gay, Project Manager 627-4764
Lori Jackson, Staff Assistant 627-3244
Ryan Redmond, Supervisor of Placements and Professional Development 627-2391
Patricia Romeo, Department Administrator 627-2389
Carla Walsh, Staff Assistant 627-5702

Affiliated Programs

Center for Science and Mathematics Teaching 627-2825
Center for Engineering Education Outreach 627-5888

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