Graduate Catalog



Framingham State University

Framingham.edu

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ACCREDITATION

Framingham State University is accredited by the <u>New England Association of Schools and Colleges, Inc. (NEASC)</u>, a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution. Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college.

PROGRAM ACCREDITATION BY:

The master's degree program in nursing at Framingham State University is accredited by the Commission on Collegiate Nursing Education (CCNE).

Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND), 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, 312-899-0040; for Food and Nutrition Major, Coordinated Program in Dietetics and Dietetics concentrations.

National Association of Schools of Art and Design (NASAD)

National Council for Accreditation of Teacher Education; (NCATE).

APPROVED BY:

Initial and Professional Licensure Programs for educators are approved by the Department of Elementary and Secondary Education (DESE) of the Commonwealth of Massachusetts, and the National Association of State Directors of Teacher Education and Certification (NASDTEC).

Interstate Certification Compact on Certification of Educational Personnel American Chemical Society (ACE).

MEMBER OF:

American Association of Colleges of Nursing

American Association of Colleges for Teacher Education

American Association of State Colleges and Universities

Association for Continuing Higher Education

Association of Collegiate Business Schools and Programs

College Entrance Examination Board

Council of Graduate Schools

Council for the Advancement and Support of Education

International Assembly for Collegiate Business Education (IACBE)

National League for Nursing

New England Association of Schools and Colleges (NEASC)

The College Board

University Professional and Continuing Education Association

NOTICE TO STUDENTS

The rules, regulations, policies, fees, and other charges, courses of study, and academic requirements that appear in this catalog were in effect at the time of its publication. Like everything else in this catalog, they are published for informational purposes only, and they do not constitute a contract between the University and any student, applicant for admission or other person. Whether noted elsewhere in this catalog or not, the University reserves the right to change, eliminate, and add to any existing (and to introduce additional) rules, regulations, policies, fees and other charges, courses of study and academic requirements. Whenever it does so, the University will give as much advance notice as it considers feasible or appropriate, but it reserves the right in all cases to do so without notice.

Mission Statement

PUBLIC HIGHER EDUCATION SYSTEM MISSION STATEMENT

The public college and university system in the Commonwealth of Massachusetts comprises fifteen community colleges, nine state colleges and the five campuses of the University of Massachusetts. The system exists to provide accessible, affordable, relevant, and rigorous academic programs that adapt to meet changing individual and societal needs for education and employment. All campuses are committed to operating effectively and efficiently in order to maintain tuition and fees at a level as low as possible, while providing a high-quality education to every student who qualifies for admission. The public system is committed to continuous improvement and accountability in all aspects of teaching and learning. The Board of Higher Education and institutional boards of trustees recognize their responsibilities to the taxpayers and residents of Massachusetts in the performance of their roles and responsibilities. Massachusetts public higher education is a system with a distinguished past, increasing pride, and unlimited potential.

STATE UNIVERSITY MISSION STATEMENT

There are six comprehensive state universities - Bridgewater State University, Fitchburg State University, Framingham State University, Salem State University, Westfield State University, and Worcester State University - and three specialized colleges - Massachusetts College of Art, Massachusetts College of Liberal Arts and Massachusetts Maritime Academy. All institutions integrate liberal arts and sciences programs with professional education, and the three specialized colleges also focus on academic areas identified in the colleges' name.

Each institution places a special emphasis on teaching and lifelong learning, and promotes a campus life that fosters intellectual, social and ethical development. Committed to excellence in instruction and to providing responsive, innovative and educational programs of high quality, they seek to develop each student's critical thinking, quantitative, oral and written communications skills, and practical appreciation of the arts, sciences and humanities as they affect good citizenship and an improved quality of life. The state system provides a campus environment where the ideas, values, perspectives and contributions of all students are respected.

Massachusetts state universities & colleges are strategically located to facilitate access to baccalaureate and master's degree programs for Commonwealth residents who meet their high standards for admission. In recognition of their responsibilities to Massachusetts taxpayers to manage their resources efficiently and to maintain tuition and fees at a level as low as possible, each campus has a distinctive academic focus based upon its established strengths and regional and state needs. Each institution is a leader and resource for the community and contributes to the region's cultural, environmental, and economic development.

FRAMINGHAM STATE UNIVERSITY MISSION STATEMENT

Framingham State University prepares students for a productive life, enhanced by learning and leadership that will contribute to the culturally diverse world of the twenty-first century.

Founded by Horace Mann in 1839 as America's first public teachers' college, Framingham State University today offers undergraduate and graduate programs encompassing the arts and sciences and professional studies.

Committed to excellence, the Framingham State University learning community comprises teacher-scholars, librarians, students, and staff who promote free inquiry, the respectful exchange of ideas, ethical conduct, and the belief that diversity in its many forms is essential to the educational experience. In an environment that supports active, collaborative learning, students work closely with faculty to engage significant bodies of knowledge and develop their ability to gather and evaluate information, communicate effectively, think critically and creatively, reason quantitatively, and apply information and emerging technologies.

At Framingham State University teaching is the primary role of faculty, who engage in their disciplines through instruction, scholarship, and service on campus and in their professional communities. The University serves as an important educational and cultural center in the MetroWest region of Massachusetts.

A Framingham State University education cultivates thoughtful, responsible local and global citizens, prepares students for a career, and positions them for success.

FRAMINGHAM STATE UNIVERSITY VISION STATEMENT

Our vision is to create a vibrant and innovative educational environment that is dedicated to academic excellence, ethical citizenship, personal and professional growth, global stewardship, and public purpose and commitment through an inclusive and collaborative community.

FRAMINGHAM STATE UNIVERSITY CORE VALUES

The following shared core values direct our thinking, planning, actions, and initiatives:

- Academic Excellence: We strive to inspire a culture informed by the joy and work of learning, in which curiosity, discovery, innovation, and excellence are the driving forces in everything we do.
- Ethical Citizenship: We seek to foster a culture of ethics, integrity and respect, such that it creates the fertile ground that motivates our work and work ethic.
- Personal and Professional Growth: We aspire to create a nurturing culture
 where all thrive and are supported in their own paths toward lifelong growth
 and leadership in personal and professional ways.
- Global Stewardship: We endeavor to advance global understanding, empathy
 and stewardship for people and the environment, embracing diversity and a
 sense of community in both local and global settings.
- *Public Purpose and Commitment:* We strive to construct a community that is committed to public purpose, informed action and service.
- *Inclusive and Collaborative Community:* We seek to encourage a supportive, diverse, collaborative and cohesive environment in which we learn from each other through informed, clear, and open communication.

The History of Framingham State University

Framingham State University began in a building, still standing today, on the corner of Lexington Common on July 3, 1839. It had as its mission the training of teachers, and was the first state-supported normal school (a school which trains teachers) in the United States of America. Twice it outgrew its accommodations, moving first to West Newton and then to its present location on Bare Hill in Framingham in 1853. From the beginning, the Normal School met the challenge of being the first model by educating teachers who were in demand for the common schools of Massachusetts and, indeed, for schools throughout the nation. From the first class, Normal School graduates participated in the new field of education for the blind and the deaf. They traveled to the South and to the West to teach in schools being established for Blacks and Native Americans, and they went as missionaries to distant lands.

From 1848 to 1898 Framingham also conducted an advanced program for women who aspired to careers in high school and college teaching, school administration, law and medicine, opening unprecedented educational and career opportunities for these women. There were principals, professors, doctors, and writers among the early graduates, and women who participated in the suffrage and temperance movements; indeed, in all of the significant educational and social reforms of the nineteenth century. At the close of the nineteenth century, the first teachers of the household arts were graduated from a new program at Framingham, laying the foundation for studies in nutrition and food science, as well as clothing and textiles.

The student body increased steadily during the twentieth century and with it the size of the campus and the number of buildings. New programs and courses marked the increasingly professional character of the education offered, while extracurricular organizations were formed to enrich student life. In 1932 the Massachusetts Normal Schools became the State Teachers Colleges, and in 1960 they became State Colleges with a mandate to develop liberal arts curricula. Framingham, which had served only women, became coeducational in 1964. The University has continued to add departments such as Economics, Sociology, and Psychology, as well as career-orientated programs in Computer Science, Communications, Business Administration, and Nursing, among others, to increase the options for students and to meet the needs of the Commonwealth. In 2010, the Governor signed legislation changing the State Colleges to State Universities.

Today, Framingham State University is situated on a beautiful 54-acre campus in the suburban town of Framingham. The University's location in the economically vibrant Metro West area affords many opportunities for students and graduates alike. Approximately 6,499 full- and part-time students with 34 bachelor's degree programs and 23 master's degree programs are enrolled at the University.

Graduate Admissions

The following are general requirements for admission to any of the graduate programs at Framingham State University. Students should review the specific requirements for admission to the particular program they are interested in as provided later in this catalog.

APPLICATION:

Applicants must possess an undergraduate degree from a regionally accredited institution of higher education and submit an official copy of their undergraduate transcripts. Two (2) letters of recommendation are required (three (3) for the program in Counseling Psychology). One letter must be from an employer or supervisor, and the other must be from faculty member who has taught the candidate at collegiate level if the candidate attended classes in the last five years. Also required is a statement expressing the applicant's reasons for seeking to undertake graduate study in the chosen area. Admission for most master's programs (except Counseling Psychology, Nursing Education, and Nursing Leadership) is on a rolling basis; however, students seeking admission for fall semester should have a complete application on file by July 1st, while students seeking admission for the spring semester should have a complete application on file by December 1st. Applications completed or received after these dates cannot be guaranteed timely matriculation.

Where required by the program, applicants must submit an official copy of the results of the Graduate Management Admission Text (GMAT), Graduate Record Examination (GRE), or the Miller Analogies Test (MAT) taken within the last five (5) years. In some programs, the exams are not required depending on an applicant's status and program of choice. In addition, applicants with an advanced degree from a regionally accredited United States institution (or for international students – the equivalent of a United States master's degree) or who have completed a Framingham State University Graduate Certificate program may be exempt from these exams. Proper documentation at time of application will be required to be considered for this exemption. Applicants should check the program requirements for specific test information as well as checking with the Office of Graduate Admissions regarding exemption eligibility.

Test of English as a Foreign Language (TOEFL) scores are required of candidates seeking admission from non-English speaking countries. The TOEFL score admissions requirement may be waived if the applicant has attended a regionally accredited United States college or university and successfully completed at least two full academic years.

Graduate Applications are available from the Office of Graduate Admissions at 508-626-4501, or online at www.framingham.edu/admissions. Applications are accepted year-round. Students may begin most programs of study in September (Fall semester) or January (Spring semester). Students may also begin taking undergraduate prerequisite courses during the summer.

Academic advisors are available to provide further information about the application process, degree programs, and course scheduling. For further information about Framingham State University graduate degree programs, and/or to make an appointment with an academic advisor, contact 508-626-4540 or visit www.framingham.edu/dgce.

COURSES BEFORE ADMISSION:

Students may elect to enroll in no more than two graduate courses before formal admission to a master's program. Courses taken before admission must be completed with a grade of B- (2.70) or better if they are to be applied toward a graduate program. Such courses must have been completed no more than five (5) years prior to the date of formal admission to Framingham State University. Exceptions may only be made by the Graduate Admissions committee. Students are required to complete the curriculum under the degree program in place when they are formally admitted. Since curriculum changes may occur, courses taken prior to matriculation might not apply toward the degree program.

F-1 STUDENT VISA STATUS:

Students admitted into a graduate program as on an F-1 Student Visa are required to enroll full-time during the fall and spring semesters. Students in the M.B.A program are encouraged to also enroll full-time during the summer terms if the intent is to complete the program in 16 continuous months.

TRANSFER COURSES:

Transfer credit for prior graduate coursework completed at another regionally accredited college or university will be considered at the time of admission based on course descriptions and documentation submitted with the student's application. Matriculated graduate students are expected to complete all coursework at Framingham State University. Under extenuating circumstances, students may request permission to take a course for transfer credit after admission, and must obtain prior approval in writing from both the advisor and the Dean of Graduate Studies. Courses accepted in transfer credit must meet the academic criteria established by Framingham State University.

Transfer credit is limited to two (2) graduate courses and must have been completed with a grade of B (3.00 on a 4.00 scale) or better provided they were earned no more than five (5) years prior to the date of admission to Framingham State University. Exceptions may only be made by the admissions committee.

Transfer credit will be allowed on a course basis. An exception is the program in Counseling Psychology where licensure requirements mandate the acceptance of only four-semester hour courses. Students wishing to transfer courses valued at less than three-semester hours may do so but in a ratio that guarantees that the equivalent credit hours of the transfer courses equal or exceed those of Framingham State University courses replaced. Transfer credit will not be given for life experiences, noncredit, or undergraduate educational experiences. Professional development courses, even at the graduate level, will not be accepted in transfer toward a master's degree.

GRADUATE READMISSION POLICY:

A graduate student in good standing who withdraws from the University, or who becomes inactive, may apply for readmission within three years of the last semester attended. A student is defined to be in good standing if he or she was not subject to dismissal at the time of withdrawal. The application for readmission should be submitted at least one month prior to registration for graduate evening or online courses and a full semester ahead for graduate Day Division courses. There is no application fee required for readmission within three years. Students who are readmitted must meet the degree requirements and policies in the Graduate Catalog in effect at the time of readmission. Students must also complete their entire program in the time limit allowed for that program including the time of inactivity. Students should refer to the Time Limit Policy for time limits on coursework applied toward the degree. Students must enroll for the semester in which their readmission is effective.

If a student has been inactive for three years or longer, he or she is required to submit a new Application for Graduate Admission and application fee with updated documentation including a new statement of purpose, transcripts for courses taken at other institutions since being enrolled at Framingham State University, letters of recommendation and cover sheets, and any other documents as required for admittance to their intended program of study. Because of the length of inactivity, it may not be possible to complete all courses in the program of study within the time limit. Students may be required to take additional coursework, or repeat some prior coursework at the discretion of the Program Coordinator and Dean of Graduate Studies.

Graduate Admissions Requirements per Program	UG QPA - Overall	UG QPA In Specific Subject	GRE*	Miller Analogies* (instead of GRE)	GMAT*	MTEL	Recommendations	Essay/Personal Statement	Personal/Phone Interview	Resume	Writing Sample	Professional Experience	Art Portfolio	Initial Teaching License	RN License	Required Undergraduate Prerequisites	Laptop	Access to a classroom, corporate training enviroment, or other learning environment successimbly as a succession of the contraction of the contrac
Master of Arts, Counseling Psychology	2.80/4.00	3.00	290 V&Q	450			3	1 (500 word)								✓		Fran
Master of Business Administration, Management	3.00/4.00		149 V & 141 Q		400		2	2 (700 word & 450 word)		✓		✓				✓		Framingnam state University Graduate
Master of Business Administration, Healthcare Management	3.00/4.00		149 V & 141 Q		400		2	2 (700 word & 450 word)		✓		✓				✓		m ora
Master of Education, Art	3.00/4.00						2	1 (300 word)					✓	✓		✓		 Ee c::
Master of Education, Curriculum & Instructional Technology	2.80/4.00		✓	✓			2	1 (300 word)										√ Versit
Master of Education, Early Childhood Education	2.80/4.00		✓				2	1 (300 word)						✓				y Grau
Master of Education, Educational Technology	2.80/4.00		✓	✓			2	1 (300 word)										
Master of Education, Elementary Education	2.80/4.00		✓	✓			2	1 (300 word)						✓				ataio
Master of Education, Literacy and Language	2.80/4.00		✓				2	1 (300 word)						✓				Catalog 2015-2016
Master of Education, Mathematics	2.80/4.00		✓	✓			2	1 (300 word)						✓		✓		0.T07-6
Master of Education, Nutrition Education	3.00/4.00						2	1 (300 word)	✓			✓				✓		
Master of Education, Special Education	2.80/4.00		✓			✓	2	1 (300 word)						✓				
Master of Education, Science Technology Engineering Mathematics	2.80/4.00		✓				2	1 (300 word)						✓				
Master of Education, The Teaching of English as a Second Langauge	2.80/4.00						2	1 (300 word)										
Master of Healthcare Administration, Healthcare Admin	3.00/4.00						2	1 (300 word)										
Master of Human Resources, Human Resource Management	3.00/4.00						2	1 (300 word)								✓		
Master of Public Administration, Public Admin	3.00/4.00						2	1 (300 word)	✓								✓	
Master of Science, Food & Nutrition - Coordinated Program in Dietetics	3.00/4.00		150/150/4.0				2	1 (300 word)								✓		
Master of Science, Food & Nutrition - Food Science & Nutitution Science	3.00/4.00		✓				2	1 (300 word)								✓		
Master of Science, Food & Nutrition - Nutrition Science & Informatics	3.00/4.00		✓				2	1 (300 word)									✓	
Maser of Science, Merchandising	3.00/4.00		✓				2	1 (300 word)		✓							✓	
Master of Science in Nursing, Nursing Education	3.00/4.00	3.25					2	1 (300 word)	✓						✓	✓		
Master of Science in Nursing, Nursing Leadership	3.00/4.00	3.25					2	1 (300 word)	✓						✓	✓		
Professional Science Master's, Biotechnology	2.50/4.00		150/150/3.5				2	1 (300 word)		✓								
Master of Arts, International Teaching Non-Licensure (Cedrone Center)	2.80/4.00	✓																
Master of Arts, Education Leadership Non-Licensure (Cedrone Center)	3.00/4.00											✓						
Master of Education, Special Education Non-Licensure (Cedrone Center)	2.80/4.00		✓															

International Applicants applying to the University must provide recent official TOEFL or IELTS scores (TOEFL 550/79-80, IELTS 6.5).

^{*}Applicants with an advanced degree from a regionally accredited United States institution (or for international students – the equivalent of a United States master's degree) or who have completed a Framingham State University Graduate Certificate program may be exempt from these exams. Proper documentation at time of application will be required to be considered for this exemption.

Post-Baccalaureate Teacher Licensure Program

Framingham State University offers the following Post-Baccalaureate Teacher Licensure (PBTL) programs leading to the Massachusetts Initial Teaching License.

INITIAL LICENSURE AVAILABLE THROUGH PBTL:

Art Visual (PreK-8) English (5-8)
Art Visual (5-12) English (8-12)

Biology (5-8) Foreign Language: French (5-12)
Biology (8-12) Foreign Language: Spanish (5-12)

Chemistry (8-12) History (5-8)
Early Childhood (PreK-2) History (8-12)
Earth Science (5-8) Mathematics (5-8)
Elementary (1-6) Mathematics (8-12)

TEACHER LICENSURE IN MASSACHUSETTS

Massachusetts has several levels of teacher licensure. The PBTL Program prepares students for the Initial License with its coursework, field-based experiences, and supervised practicum. The Initial License has a life of five (5) years of teaching. The professional license may be earned by adding an appropriate master's program.

The requirements mandates by Massachusetts are a major effort to strengthen the preparation of teachers and administrators in the schools. Framingham State University has responded by adjusting the requirements in its programs. It will continue to do so, as it simultaneously seeks to protect the interests of its students while remaining in compliance with state regulations. All information in this bulletin is accurate as of press time and is subject to any further change in state laws and regulations.

The Elementary Education courses for the PBTL Program are available during the late afternoon hours. To be eligible for these courses, students must be officially accepted and enrolled in the PBTL Program.

Further information about the PBTL Program may be obtained from the Office of Graduate Admissions.

ACADEMIC SUBJECT LICENSES

For those preparing to teach art, biology, chemistry, earth science, English, French, history, mathematics, or Spanish, applications are considered on an individual basis in accordance with the subject matter knowledge specified in Massachusetts Department of Elementary and Secondary Education Regulations and the program requirements of Framingham State University. Each department affiliated with a secondary education program determines the subject matter requirement needed for recommendation to the state for licensure.

EARLY CHILDHOOD (GRADES PRE-K-2) OR ELEMENTARY EDUCATION (GRADES 1-6)

The focus of the PBTL program at the early childhood or elementary level is on teaching methods. However, adequate preparation in the humanities, natural sciences, social sciences, and mathematics is necessary to establish the groundwork for success in the classroom. Candidates lacking sufficient preparation in any area will be asked to make up deficiencies.

APPLICATION PROCESS

Applications are accepted year round and students may begin a program any semester. Prospective students apply for the Post Baccalaureate Teacher Licensure Program through the Office of Graduate Studies. Application requires a fee of \$50.00, transcripts of college work from all previous colleges, and two letters or recommendation. Documentation of any work experience in public schools, including dates, should be submitted at this time. For an application to the PBTL program, please call Graduate Admissions at 508-626- 4528 or apply online at www.framingham.edu/dgce.

ADMISSION REQUIREMENTS

Admission to the PBTL Program requires a baccalaureate degree from a regionally accredited college or university and a passing score on the Communication and Literacy portion of the Massachusetts Test for Educator Licensure (MTEL). A minimum undergraduate overall grade point average of 2.80 is required. PBTL candidates with deficiencies in the liberal arts or sciences will be required to take appropriate courses in the humanities, natural sciences, social sciences, and mathematics before admittance to more advanced studies in the PBTL education sequence involving teaching method and practice.

A PBTL applicant who began the licensure sequence as an undergraduate at FSU, the Education Department maintains a student's licensure folder. This folder contains evaluations on education classroom performance and professional attributes appropriate for teachers as well as academic achievement. Therefore, the existing licensure folder for a PBTL applicant will be reviewed, in conjunction with the PBTL program application, by the appropriate admissions committee for the license sought. Where any questions arise, the appropriate admissions committee reserves the right to discuss the contents of the student's licensure file with the PBTL applicant.

MASSACHUSETTS TEST FOR EDUCATOR LICENSURE

The Commonwealth presently administers MTEL examinations several times a year. The deadline to register for the exams take place approximately six weeks before the examination is given. For further information and to register, visit www.mtel.nesinc.com.

FOUNDATIONS OF READING TEST

Although a passing score on the Foundations of Reading Test is not a requirement to apply for the PBTL Program, it is a requirement for student teaching practicum and the Initial License in early childhood and elementary education.

SUBJECT MATTER KNOWLEDGE TEST

Although a passing score on the Subject Matter Knowledge Test is not a requirement to apply for the PBTL Program, it is a requirement for student teaching practicum and the Initial License in that subject matter.

MASSACHUSETTS TEST FOR EDUCATION LICENSURE (MTEL) PREPARATION WORKSHOPS

Framingham State University conducts MTEL Preparation Workshops for the Communication and Literacy Skills Test and Foundations of Reading Test. Please contact Continuing Education at 508-626-4603 for further information, or visit www.framingham.edu/dgce.

STUDIES IN EDUCATION

All students in the PBTL program must take coursework in teaching methods, development and learning, and foundational studies dealing with the nature of schooling in our society. The precise courses differ according to the licensure sought, but all PBTL program include the following three core courses:

PBTL 001 Field Study I (There is no academic credit for this course)

PBTL 910 Education Foundations

PBTL 992 Learning and Human Development

Enrollment in PBTL 001 Field Study I requires that students have (a) already completed or be currently enrolled in PBTL 910 or PBTL 992; and (b) submitted an application to the PBTL program.

NOTE: All students, with the exception of those pursuing licensure in Foreign Language, must also complete a "Sheltered English Immersion" course. This requirement can be completed by enrolling in the following FSU course:

EDUC 222 Sheltered English Immersion

<u>or</u>

TESL 910 Sheltered English Immersion

IN-SCHOOL EXPERIENCE

There are presently three or four in-school or "field" experiences, depending on the license sought. Only students matriculated in the PBTL program may enroll in Field Study II and III, and student teaching practicum. The first field experience focuses principally on observation. The second, and in the case of elementary and early childhood programs the third as well, are part of teaching methods courses and involve taking on some real teaching responsibility. (These first experiences are designated Field Study I, II, and III.) The fourth experience (the third for subjects other than elementary and early childhood) is the student teaching practicum. It requires a semester's full-time commitment. PBTL students preparing for an Initial License may apply to use a semester of employment by a cooperating school district either as a teacher of record or as an aide in the field and at the level of the license sought. Students must be so employed at the time of application and have completed all other program and college requirements. The University's Education Department will review applications on a case by case basis. For more information, refer to the course descriptions for PBTL 888 Practicum Equivalent A and PBTL 889 Practicum Equivalent B.

Graduate Academic Policies and Regulations

ENROLLMENT STATUS

Non-Matriculated Students

Non-matriculated students may enroll in no more than two (2) graduate courses before formal admission to a master's program. Since curriculum changes occur, prospective students are advised that the two courses taken prior to matriculation may not always apply to the degree program in place once students are accepted.

NOTE: Only students admitted into the Master of Business Administration (M.B.A.) program or Master of Science in Nursing (M.S.N.) program may enroll in the courses required for each respective program. Non-matriculated students are not permitted to enroll in graduate level courses in either of these programs.

Matriculated Students

Students who have met all admission requirements of the graduate program, have received a letter of acceptance from the University, submitted the required Admissions Deposit, and enroll in courses for the semester for which they were admitted will be considered matriculated.

Graduate students admitted to a master's program must enroll in courses in the semester in which they were admitted. If a student chooses not to enroll, he/she may defer admission for up to two semesters, not including summer. Please check with Graduate Admissions as some programs only allow fall semester admission.

Inactive Students

All continuing matriculated graduate students (not newly matriculated) must enroll in at least one course in both the fall and spring semesters in order to remain active in their program. Students matriculated in either the Master of Arts, concentration in Counseling Psychology or the Master of Business Administration must also enroll in at least one course during the summer term. If a student elects to take a semester off, a formal Leave of Absence Application (see policy) must be submitted two weeks prior to the semester and approved by the Office of Graduate Studies. A student who does not request a leave of absence and elects not to enroll in at least one course during the fall or the spring semesters (or summer term for students matriculated in the Master of Arts, concentration in Counseling Psychology or Master of Business Administration) will become inactive at the University. Inactive students must apply for re-admission prior to the start of the semester when seeking to return to active status. Students returning to a program after being away for more than two consecutive semesters (excluding summer except for the two aforementioned programs) are subject to the new program requirements upon their return.

ENROLLMENT STATUS CHANGE BETWEEN CONTINUING EDUCATION AND DAY DIVISION

Students wishing to take courses through the Day Division must complete a Change of Division/Enrollment Status Request form in advance of the semester in which they wish to make this change. The Day Division and Continuing Education are separate fiscal entities and tuition paid to one will not cover tuition owed to the other.

MAXIMUM NUMBER OF COURSES PER SEMESTER

Students matriculated in a part-time graduate program can take no more than two course-credits during the fall and spring semesters and no more than three course-credits during the summer term, without written approval from their program advisor.

ACADEMIC COURSE LOAD

The average course load for graduate students is one (1) or two (2) course-credits per fall or spring semester and is considered "Less than Half-Time" and "Half-Time" respectively (for financial aid purposes). Enrolling in three (3) course-credits is considered full-time.

Graduate students in any of the Master of Education programs requesting to enroll in three (3) course-credits in the fall or spring semesters must receive written approval of their program advisor, except during the Summer Term, when enrolling in three (3) course-credits is permitted without obtaining program advisor approval.

Graduates students in the MBA program may choose to enroll in three (3) course-credits in the fall and/or spring semesters but should consult their program advisor before doing so.

Graduate students enrolled in the Day Division may enroll in up to four (4) course-credits per semester as part of the full-time status; the minimum is three (3) course-credits per semester to be considered "Full-Time". A student carrying three or more course-credits in the Day Division will be considered a full-time student and must pay all charges and fulfill all responsibilities accordingly. Note: Students in a graduate assistant position may not enroll in more than three (3) course-credits. A student carrying three or more course-credits will be considered a full-time student and must pay all charges and fulfill all responsibilities accordingly.

TIME LIMITS

Completion of Programs of 10 courses or less:

All requirements for the degree program must be completed within six (6) years from the end of the semester in which the student is first matriculated in a master's program.

Completion of Programs of more than 10 courses:

Master of Business Administration: All requirements for the degree must be completed within six (6) years from the end of the semester in which the student is first matriculated in the master's program.

Master of Arts (Counseling Psychology, Educational Leadership), Master of Education (Special Education), and Master of Science (Food and Nutrition, Coordinated Program in Dietetics): All requirements for the degree program must be completed within eight (8) years from the end of the semester in which the student is first matriculated in the master's program.

SECOND MASTER'S DEGREE

Students who have earned either a Master of Education (M.Ed.) or Master of Arts (M.A.) with a concentration in Educational Leadership degree at Framingham State University may apply the three education common core courses to a second Master of Education degree. Students will be required to complete all other degree requirements for the second master's program. Time limits may apply.

ACADEMIC ADVISING

Graduate students are assigned a graduate advisor at the time they receive admission to a graduate program. The graduate program advisor will have the responsibility of advising the student in completing the graduate degree requirements. It is recommended that students meet with their advisor each semester, but no less than once per academic year. Students are expected to view their degree audit, accessed via myFramingham, prior to meeting with their graduate program advisor.

CLASS ATTENDANCE

Graduate students are expected to attend all class sessions. In circumstances when a student cannot attend, the instructor should be notified at the previous class meeting. Veterans receiving VA benefits must attend regularly in order to ensure their benefits. Students receiving Financial Aid must attend regularly in order to ensure their Financial Aid.

CLASS ABSENCE BECAUSE OF RELIGIOUS BELIEFS

Any student in an educational or vocational training institution, other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study or work requirement on a particular day, shall be excused from any such examination or study or work requirement, and shall be provided with an opportunity to make up such examination, study or work requirement which he may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section." (Massachusetts General Laws, Chapter 151C, Section 2B).

CHANGE OF PROGRAM CONCENTRATION

A student who has been admitted to a degree program and wishes to be admitted to another degree program will be treated as a new applicant. A letter of intent stating the reason for the request must be submitted along with a new application. Another application fee is also required. No new transcripts need to be sent unless requested, but, depending upon the program applied to, new letters of recommendation and new scores from appropriate examinations may be required. Not all courses completed in one program may be transferable to another program.

COMPREHENSIVE EXAMINATIONS

An oral, written or electronic comprehensive examination is required of students in several graduate programs and is indicated in this catalog. There is a fee of \$125.00 for each comprehensive examination and this examination should be taken during the student's final semester and requires prior approval in writing by the Dean of Graduate Studies and by the members of the Examination Committee. Where required, students must receive a passing grade on both their portfolio as well as comprehensive examination in order to graduate.

The comprehensive examination is conducted by a three-member panel established in accordance with the nature of the student's program of study. Candidates pursuing the M.Ed. must have one member of the panel representing the field of education and two in the specific discipline the student has chosen. All other panel members are to comprise three members of the specific discipline. The comprehensive examination must be passed with a minimum grade of B- or the equivalent at the graduate level and is scored by each member of the panel. A majority ruling determines the results.

Once a student's comprehensive exam has been scheduled and the panel members are confirmed the following refunding rules apply:

- If a student cancels the exam more than two weeks before the scheduled exam
 date, the exam and commencement fees will be deferred to the next semester.
- If a student cancels the exam within two weeks of the scheduled exam date, only the commencement fee will be deferred to the next semester.
- If the University cancels the exam, the exam and commencement fees will be deferred to the next semester.
- If a student cancels the exam because of an emergency such as a death in the family, or hospitalization, a full refund may be requested by writing to the Dean.

A student who fails the comprehensive examination shall be given one opportunity to take it again, after he or she has made substantial progress in whatever additional work may have been prescribed by the student's advisor. Students who fail the first examination do not have the option of appealing the decision because they have the opportunity to take it a second time. The repeat comprehensive cannot be taken in the semester of failure without the approval of the Dean and Program Advisor. However, it must be completed by the end of the following semester. Students must file a new application form prior to the next application deadline. On a repeat examination, a five member panel consisting of the Dean or his/her designee and three or four specialist in the specific discipline (one education representative for M.Ed. candidates) is required. Students are not allowed more than one attempt to retake the comprehensive examination.

COMMENCEMENT

There is a graduation fee of \$100.00 which is required to be paid at the start of the student's final semester of enrollment (which includes the semester the comprehensive, if applicable, is taken).

There are four graduation dates per year during which diplomas are issued: August 31st, December 31st, January 31st, and May 2x. Commencement exercises are held in May. **In order to participate in Commencement, graduate students must have completed all degree requirements.** Applications for comprehensive examinations (if required in the program) and for Commencement are due during the semester preceding the semester in which the student intends to graduate. The dates for application to graduate are as follows:

April 15th August graduation
August 15th December graduation
October 15th January graduation
January 15th May graduation

PRACTICUM/INTERNSHIPS

All applications for Practicum or Internship Programs require prior approval by the Dean and Program Advisor. In considering candidates for approval, the University reserves the right to evaluate the candidate's suitability to pursue a career in the field for which the experience has been designed.

LEAVE OF ABSENCE POLICY

Applicable to either a matriculated graduate student or Post-Baccalaureate Teacher Licensure Candidate (PBTL).

A Leave of Absence request and approval is required for either the Fall or Spring semester of the Academic Year (Summer terms are excluded except for the MBA, MCO and MSN programs) for which the student does not enroll in courses. Leaves will not be granted for more than one semester at a time. A Leave of Absence may not be longer than one semester (excludes Summer terms except for MBA, MCO and MSN programs). A student may not request any more than four (4) Leaves of Absence. The policy regarding Time limits for program completion is not affected by an approved Leave of Absence. Leaves of Absence are available for consideration only to continuing graduate students in good standing (minimum 3.00 GPA). Students should consult with their program coordinator to determine if the Leave of Absence is appropriate.

The Dean of Graduate Studies makes the final decision to approve or deny a request for a Leave of Absence. For students on an approved Leave of Absence, registration information will be sent to both the FSU email account and personal email account on file prior to the start of the next registration period and approximately two weeks prior to the term the student is scheduled to return. In order to remain active in the program before the Leave of Absence expires, the student must enroll in courses for the upcoming semester.

Should the student not register once the Leave of Absence expires, the student will become Inactive at the University and will need to apply for Re-admission in order to resume his/her program of study.

Timeline A Leave of Absence request must be submitted no later than two (2) weeks prior to the semester for which the Leave of Absence is requested.

WITHDRAWAL FROM THE UNIVERSITY OR DISCONTINUANCE OF STUDY

Matriculated graduate students who wish to withdraw from their graduate program at the end of a semester must notify the University Registrar and the Office of Graduate Studies in writing (an email from the student's FSU student email account will suffice). Students who withdraw ("W") from all courses during a semester may do so online through the student portal, myFramingham. By doing so, the student is effectively withdrawing from the University and will be reported as such for financial aid purposes. When this occurs, the student will be automatically re-admitted for the subsequent spring or fall semester (or summer term is enrollment is required by the particular graduate program).

Matriculated graduate students who did not apply for a Leave of Absence, if eligible, and do not enroll for the semester, are reported as withdrawn from the University for financial aid purposes, will be automatically re-admitted for the subsequent spring or fall semester (or summer term is enrollment is required by the particular graduate program).

Students who do not register for the term in which they have been automatically readmitted into will be made inactive and will be required to contact the Office of Graduate Admissions in order to submit a re-admission application prior to the start of the semester of return.

READMISSION

A graduate student in good standing who withdraws from the University, or who becomes inactive, may apply for readmission within three years of the last semester attended. A student is defined to be in good standing if he or she was not subject to dismissal at the time of withdrawal. The application for readmission should be submitted at least one month prior to registration for graduate evening or online courses and a full semester ahead for graduate Day Division courses. There is no application fee required for readmission within three years. Students who are readmitted must meet the degree requirements and policies in the Graduate Catalog in effect at the time of readmission. Students must also complete their entire program in the time limit allowed for that program including the time of inactivity. Students should refer to the Time Limit Policy for time limits on coursework applied toward the degree. Students must enroll for the semester in which their readmission is effective.

If a student has been inactive for three years or longer, he or she is required to submit a new Application for Graduate Admission and application fee with updated documentation, including a new statement of purpose, transcripts for courses taken at other institutions since being enrolled at Framingham State University, letters of recommendation and cover sheets, and any other documents as required for admittance to their intended program of study. Because of the length of inactivity, it may not be possible to complete all courses in the program of study within the time limit. Students may be required to take additional coursework, or repeat some prior coursework at the discretion of the Program Coordinator and Dean of Graduate Studies.

If a PBTL student is seeking readmission, the existing licensure folder for a PBTL student (maintained in the Education Department) will be reviewed, in conjunction with the PBTL program readmission application, by the appropriate admissions committee for the license sought. Where any questions arise, the appropriate admissions committee reserves the right to discuss the contents of the student's licensure file with the PBTL applicant. Students must enroll for the semester in which their readmission is effective.

GRADING SYSTEM

Framingham State University uses the following marking system at the graduate level

rade	Quality Points
A	4.00
A-	3.70
B +	3.30
В	3.00
В-	2.70
C +	2.30
C	2.00
F	0.00

Note: Any grade below a C is recorded as an F and has 0.00 value. Pass-Fail or Satisfactory-Unsatisfactory grades are not accepted for graduate study. Only grades earned at Framingham State University are included in the student's quality grade point average. Grade reports are viewable online through the portal, myFramingham.

- AU = (Audit-no credit) A student may audit courses with the consent of the instructor. Such course enrollment will be officially reported on the student's transcript pending approval by the instructor, but the student will not receive any credit. An auditor may not participate actively in coursework without the permission of the instructor. An Audit must be requested prior to the second class meeting end of the Evening Division courses.
- **W** = Withdrawal from a course. Indicates withdrawal from a semester course in the third through the ninth week of the fall or spring semester (for summer term between the third and ninth class meeting).
- N= (Absent from Final Examination) This is a temporary grade with 0 (zero) quality point value given for a student absent from a final examination for justifiable reasons. The Dean of Graduate Studies will administer a make-up exam only in those instances where the faculty member involved asserts that the exam was missed for reasons that can be justified. The examination that was missed must be taken within two weeks of the last day of the final exam period, or the grade becomes an "F", unless an extension is granted by the faculty member when circumstances warrant.
- IC= (Incomplete) This is a temporary grade with 0 (zero) quality point value which may be given to a student when the instructor is satisfied that circumstances beyond the student's control, other than absence from the final examination (see N above), prevented the student from completing the required work for the course. (An "IC" will not be given, however, unless 80 percent of the work has been completed.) Student indifference resulting in inability to get work in on time is not a reason for giving an "IC". The "IC" will be changed to any other appropriate grade by the instructor if the course has been fully completed by the end of the first four weeks of the next semester. If the work is not completed within the given time, the "IC" will be changed to "F", unless a request for extension is made in writing by the instructor and submitted to the Dean of Graduate Studies when circumstances warrant.

APPROVAL TO REPEAT A GRADUATE COURSE

Subject to prior approval by the Dean of Graduate Studies, graduate students in good standing may repeat a course in which they received a grade lower than B- (2.70 on a 4.00 scale). All grades, including those earned in repeated courses, will remain on the academic transcript. The same course must be repeated at Framingham State University, and may only be repeated once. Only the most recent grade, whether higher or lower than the original grade earned, will be counted toward the student's degree program. No more than one graduate course may be repeated.

GRADE APPEAL POLICY

The University recognizes that the instructor has the right to determine course evaluation policies that are consistent with departmental and University policies. The instructor's policy will be designated in the course syllabus distributed at the beginning of the semester. It is the instructor's responsibility to grade student work in a manner consistent with those procedures published in the syllabus.

The following procedure is employed in the event that students wish to appeal a final grade based on a mechanical error in calculation or if there is reason to believe that the grade was calculated in a manner inconsistent with the policies of the instructor, the department, and/or the University. Appeals based on discrimination criteria can be pursued through affirmative action procedures.

There are two levels at which a grade may be appealed:

Level I: Informal

Within the first month of the semester following the semester of the course in which the final grade is questioned, students will pursue their concerns on the informal level, as designated below. Every effort will be made to resolve the students' concerns informally at Level I.

The informal procedure is a two-step process in which the student first meets with the course instructor. After this meeting, if the matter is not resolved, the student would meet with the graduate program coordinator. If the appeal is not resolved at the graduate program level, the student has the right to pursue a formal appeal.

Level II: Formal

At the formal level, the student would write to the Dean of Graduate Studies. Grade appeals are to be made no later than the semester following receipt of the disputed grade.

Step One: Dean of Graduate Studies

Taking into account, in a fair and timely fashion, all matters and considerations related to the dispute, the Dean of Graduate Studies will determine whether or not the student has a basis for an appeal. If the Dean decides there is no basis for an appeal, the matter will be considered closed. *NOTE: the course instructor will provide the course syllabus and grading procedures as well as the method for calculating the final grade.*

Step Two: Faculty Governance/Graduate Education Council

If the Dean decides there is a basis for appeal, the matter will be forwarded with all forms and any other pertinent materials to the Graduate Education Council. The Council will appoint an Ad Hoc Grade Appeal Committee.

Step Three - The Ad Hoc Grade Appeal Committee and the Appeal Procedure

As part of the process, the Ad Hoc Grade Appeal Committee may consult with the student, the instructor, and the program coordinator. If the Ad Hoc Grade Appeal Committee determines that a change in grade may be warranted, the committee will inform the program coordinator and will consult with the instructor prior to making its recommendation to the Dean of Graduate Studies.

The Ad Hoc Grade Appeal Committee must submit a written recommendation (either that "the Committee supports the grade as originally recorded" or the "the instructor

should review the grade in question") in a sealed envelope along with the appeal documentation for the Dean of Graduate Studies within one month of receipt of the committee charge.

The Dean of Graduate Studies will convey the Ad Hoc Grade Appeal Committee's recommendation to the instructor and the student. If the committee recommends that "the instructor should review the grade in question," the Dean of Graduate Studies will ask the instructor to review the grade and to inform the Dean of Graduate Studies of the outcome. If the review results in an unchanged grade, the Dean of Graduate Studies has the authority to change the grade in such cases where there has been a mechanical error in calculation or if there is a reason to believe that the grade has been calculated in a manner inconsistent with the stated grading criteria of the faculty, the program, and/or the University. The appeal ends at this point.

ACADEMIC STANDING AND DISMISSAL

Academic Average for Graduate Degrees and Certificates

Completion of a graduate degree program or graduate certificate at Framingham State University requires that all students achieve a minimum of 3.00 quality point average in graduate courses taken to satisfy program requirements. Only credits received from Framingham State University are included in this calculation. Students are expected to monitor their academic progress and will receive an academic warning if their grade point average falls below 3.00.

Academic Warning

The following circumstances result in an academic warning:

- A student shall receive a warning the first time the cumulative quality point average falls below 3.00.
- A student shall receive a warning when the student receives one grade below "B-(2.70)."

NOTE: A student shall be provided with no more than one (1) academic warning. A second occurrence of either circumstance noted above will result in Academic Dismissal.

Academic Dismissal

The following circumstances result in an academic dismissal:

- A student may be dismissed upon completion of a semester in which the cumulative quality point average falls below 3.00, and when a warning previously has been given. Students may not receive more than one warning before being dismissed.
- 2. A student shall be dismissed if the cumulative quality point average remains below 2.70 for two consecutive semesters.
- 3. A student shall be dismissed when the student accumulates two grades below "B-(2.70)."
- 4. A student shall be dismissed upon receipt of an "F" grade. The "F" grade is permanently recorded on the transcript and remains in the cumulative quality point average unless the student is reinstated and the course is retaken.
- 5. Upon notification of dismissal, students will have up to one semester from the date of notification to make a formal written appeal for readmission. The appeal will not be considered unless it includes concrete reasons and explanations for the student's poor academic performance, with specific reference to extenuating circumstances and documentation where possible. Students must also include a written plan of action for improving the level of academic performance. Appeals are addressed to the Graduate Education Council. Appeals for readmission will be reviewed based on new information or extremely extenuating circumstances only.
- 6. Should a student be re-admitted to the University (after submitting a written appeal to the Graduate Education Council) and receive an additional grade of "F" or meet the criteria for Dismissal as noted in items 1 through 3, that student will be permanently dismissed and ineligible for appeal.

STUDENT CONDUCT

Graduate Students must comply with Framingham State University Guidelines and Policies, as outlined in the RAM Student Handbook. University regulations include but are not limited to: the Framingham State University General Student Conduct Code; the alcohol and drug policy; the care and use of university property; and the sexual harassment policy. Unfamiliarity with institutional regulations or rules is not grounds for excusing infractions. Students who are involved in violations of University conduct guidelines or commonly accepted standards of behavior while on campus will be subject to disciplinary proceedings by the University. The RAM Student Handbook is available in alternative formats for students with disabilities.

PROFESSIONAL STANDARDS FOR STUDENTS ENROLLED IN TEACHER PREPARATION PROGRAMS

In accordance with the requirement for approval or accreditation established by the Commonwealth, the Framingham State University Professional Standards Committee applies specific criteria for the retention of candidates in teacher preparation to determine that they possess academic competencies and person characteristics appropriate to the requirements of teaching. The Professional Standards Committee uses a number of criteria, both objective and subjective, for permitting students to progress through the teacher education programs.

UNIVERSITY POLICY REGARDING ACADEMIC HONESTY

Integrity is essential to academic life. Consequently, students who enroll at Framingham State University agree to maintain high standards of academic honesty and scholarly practice. They shall be responsible for familiarizing themselves with the published policies and procedures regarding academic honesty.

Academic honesty requires but is not limited to the following practices: appropriately citing all published and unpublished sources, whether quoted, paraphrased, or otherwise expressed, in all of the student's oral and written, technical and artistic work; and observing the policies regarding the use of technical facilities.

Infractions of the Policy on Academic Honesty include, but are not limited to:

- Plagiarism: claiming as one's own work the published or unpublished literal or paraphrased work of another. It should be recognized that plagiarism is not only academically dishonest but also illegal.
- 2. Cheating on exams, tests, quizzes, assignments, and papers including the giving or acceptance of these materials and other sources of information without the permission of the instructor(s).
- 3. Unauthorized collaboration with other individuals in the preparation of course assignments.
- Submitting without authorization the same assignment for credit in more than one course.
- Use of dishonest procedures in computer, laboratory, studio, or field work. Further clarification on academic honesty will be provided, when appropriate, in individual courses.
- 6. Misuse of the University's technical facilities (computer machinery, laboratories, media equipment, etc.), either maliciously or for personal gain. Examples include but are not necessarily limited to:
 - a. Accessing the private files of another person or agency without express permission.
 - b. The unauthorized use of technical facilities for purposes not connected with academic pursuits. When evidence indicates that a student has improperly used

a technical facility, an appropriate supervisor (faculty or staff member) may take appropriate action reflecting the seriousness of the infraction, ranging from a verbal warning to, but not beyond, denial of use of the facility. If coursework may have been plagiarized, the supervisor will also inform all concerned faculty members, who may take action as described in the procedures for handling cases of alleged infractions of academic honesty.

PROCEDURES FOR HANDLING CASES OF ALLEGED INFRACTIONS OF ACADEMIC HONESTY

Step One - Faculty/Supervisor Action

Individual faculty members/supervisors are to deal directly with any academic infractions. The phrase "deal directly" assumes the faculty member/supervisor will confront the student with the fact of dishonesty and take appropriate action. Such action should reflect the seriousness of the infraction and could range from an informal verbal warning to, but not beyond, the issuance of an "F" for the course.

Step Two - Formal Hearing

A.If, in the judgment of the faculty member/supervisor the alleged infraction of academic honesty warrants a more severe penalty, that person may request that the matter be brought before the Dean of Graduate and Continuing Education for a formal hearing and judgment. Such judgment may involve academic suspension or dismissal from the University.

OR

B.If a student wishes to appeal the decision of the faculty member/supervisor as outlined in Step One above, he or she may likewise request a formal hearing before the Dean of Graduate and Continuing Education.

Upon request of a faculty member/supervisor or a student, the Dean of Graduate and Continuing Education shall schedule a formal hearing before members of the Graduate Education Council, at a time and place agreeable to all parties concerned.

INSTITUTIONAL REVIEW BOARD

The Framingham State University Institutional Review Board (IRB) is responsible for protecting the rights and welfare of human subjects participating in research conducted at FSU. The FSU IRB reviews research in the following three categories:

- 1. Research that is federally funded;
- Research for which the sponsoring agency requires federal-level institutional review; and
- 3. Research that is voluntarily submitted by an applicant(s) for a federal-level institutional review.

It is expected that individuals conducting research associated with the University do so in accordance with the highest ethical and moral standards and accepted practices within their disciplines.

Information about the FSU IRB and IRB-related documents may be accessed at the following URL: http://www.framingham.edu/academic-affairs/institutional-review-board/index.html.

NONDISCRIMINATION POLICY

It is the policy of Framingham State University not to discriminate in education or employment on the basis of race, color, religion, creed, sex, sexual orientation, age, disability, veteran status, marital status, or national origin. The University operates under an Equal Opportunity, Diversity, and Affirmative Action Plan, as approved by the Massachusetts Board of Higher Education (BHE) and the University's Board of Trustees, that promotes and maintains a policy of nondiscrimination, equal opportunity, and affirmative action. This plan incorporates by reference, and where applicable, the requirements of Titles VI and VII of the Civil Rights Act of 1964; Title VI of the Civil Rights Act of 1968; Titles I and II of the Civil Rights Act of 1991; Title IX of the Education Amendments of 1972 and its regulations found at 34 C.F.R. part 106; the Equal Pay Act of 1963; 72 1520495_1 Civil Rights Restoration Act of 1988; Sections 503 and 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990, as amended; Section 402 of the Vietnam-era Veterans Readjustment Act of 1974, Uniformed Services Employment and Reemployment Rights Act; the Age Discrimination Act of 1975; the Age Discrimination in Employment Act of 1967, as amended; the Family and Medical Leave Act of 1993; the Genetic Information Nondiscrimination Act of 2008; the reauthorized Violence Against Women Act, Pub. Law No. 113-4 (2013); the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act; the Higher Education Act of 1965, as amended; Federal Executive Order 11246 of 1965, as amended by Executive Order 11375 of 1967; Federal Executive Order 12900 of 1994; Federal Executive Order 13145 of 2000; Federal Executive Order 13160 of 2000; Federal Executive Order 13166 of 2000; Massachusetts Civil Rights Act; Massachusetts General Laws Chapters 151B, 151C, and Chapter 149; St.2011, c. 199 (H3810), An Act Relative to Gender Identity; directives of the BHE, the Universities' Boards of Trustees and the Commonwealth; and other applicable local, state and federal constitutions, statutes, regulations and executive orders.

Inquiries or advice concerning discrimination and the application of these policies, laws and regulations may be referred:

Kimberly R. Dexter
Director of Equal Opportunity, Title IX, and
ADA Compliance
Equal Opportunity Officer
Title II/Section 504 Coordinator
Dwight Hall, room 205
(508) 215-5859
kdexter@framingham.edu

Students may also contact:
David Baldwin
Associate Dean of Students
Equal Opportunity Officer for Students
McCarthy Center, suite 504
(508) 626-4596
dbaldwin@framingham.edu

Inquiries may also be directed to: The U.S. Department of Education Office for Civil Rights 33 Arch Street, 9th Floor Boston, MA 02119-1424 (617) 289-0111 Fax (617) 289-0150; TDD (877) 521-2172 OCR.Boston@ed.gov

The University Title IX Coordinator is responsible for the University's compliance with Title IX and the administration of the University's Sexual Violence Policy. Any person with questions or concerns about any form of sexual violence, sexual harassment, gender-based harassment, domestic violence, dating violence and stalking and/or retaliation may also contact:

Kimberly R. Dexter Director of Equal Opportunity, Title IX, and ADA Compliance University Title IX Coordinator Dwight Hall, room 205 (508) 215-5859 kdexter@framingham.edu

Dr. Melinda Stoops
Dean of Students
Title IX Coordinator for Students
McCarthy Center, suite 504
(508) 626-4596
mstoops@framingham.edu

Carey Eggen
Associate Director of Athletics/Senior
Woman Administrator
Title IX Coordinator for Athletics
Athletic Center, 2nd floor
(508) 626-4565
ceggen@framingham.edu

Inquiries may also be directed to:
The U.S. Department of Education
Office for Civil Rights
33 Arch Street, 9th Floor
Boston, MA 02119-1424
(617) 289-0111
Fax (617) 289-0150; TDD (877) 521-2172
OCR.Boston@ed.gov

Financial Information

COURSE TUITION & FEE CHARGES FOR GRADUATE STUDENTS ATTENDING CONTINUING EDUCATION DIVISION, 2016-2017*

	Full-Time 3 Course-Credits	Part-Time 2 Course-Credits	Part-Time
Graduate Course Tuition (excludes MBA, MSN, PSM courses)	\$2,610.00	\$1,740.00	\$870.00
MBA, MSN, PSM Course Tuition	\$3186.00	\$2124.00	\$1062.00
Course Fees	\$900.00	\$600.00	\$300.00
Graduate International Student Fee (F-1 Student Visa)	\$1000.00	\$1000.00	\$1000.00

COURSE TUITION & FEE CHARGES FOR GRADUATE STUDENTS ATTENDING DAY DIVISION, 2016-2017*

	Full-Time 3 Course-Credits	Part-Time 2 Course-Credits	Part-Time 1 Course-Credit
In-State Graduate Tuition Permanent Residents of Massachusetts	\$837.50	\$560.00	\$280.00
Out-of-State Tuition Non-Residents	\$3,525.00	\$2,350.00	\$1,175.00
New England Regional Higher Education Tuition	\$1,256.25	\$838.00	\$419.00
Fees	\$4184.50	\$2,820.50	\$1,456.50

^{*}Note: The schedule of fees, tuition, methods of payment, and refund policies are those in effect at the time of publication. They are subject to change without notice.

PAYMENTS

No student will be officially enrolled in the University unless all charges have been paid. This includes the \$50.00 graduate admissions application fee, as well as the nonrefundable \$50.00 tuition deposit required of first-time graduate students. The balance of the tuition and all other fees, except for the oral or written comprehensive examination fee and the graduation application fee, are paid to the Student Accounts Office. Any student enrolled in three or more course-credits at the University (Day, Continuing Education, or a combination of both) will be charged for annual health insurance coverage. All students must waive or enroll online in the health insurance offered by the University. Failure to do so may result in loss of classes. In addition, a \$50.00 late fee may apply. Please see below for additional information regarding waiving/enrolling coverage. Payments may be made online, in-person, or through the mail. Payment may be made by cash, bank check, certified check, money order, personal

check, MasterCard, Visa, Discover or American Express. Please note that you may not pay by credit card through the mail because of new credit card regulations. Please print your name and Framingham State University student ID number in the upper left-hand corner of all checks. A \$25.00 fee will be charged for a check returned unpaid by the bank or for declined debit/credit cards. Do not send cash through the mail.

MANDATORY HEALTH INSURANCE

State law requires all full-time students attending Framingham State University to have health insurance. Students must submit, on-line, the Health Insurance Request for Waiver form or enroll in the insurance plan (full year, \$2,511.00, 08/01/16 to 07/31/17) offered by the University. Submittal of the waiver or insurance enrollment is required in order to be registered at the University. Part-time students are not eligible to purchase the health insurance offered by the University.

REFUNDS FOR GRADUATE STUDENTS ATTENDING THE EVENING DIVISION

All refunds will be made by check payable to the student. If a student withdraws from an evening division course, tuition refunds are as follows: before the first class meeting, 100%; before the second class meeting, 90% of tuition only (no fees); before the third class meeting, 50% of tuition only (no fees); after third class, no refund. A refund is not permitted if a student changes the status of a course from credit to audit.

REFUNDS FOR GRADUATE STUDENTS ATTENDING DAY DIVISION

All refunds will be made by check payable to the student. If a student is withdrawing from the University, the student must complete and submit a "Notification of Withdrawal" form to the Office of the University Registrar. No refund will be issued unless a "Notification of Withdrawal" form is complete.

If a student withdraws from the University, tuition and fees are prorated on a daily basis through 60% of the semester. Excluded from this policy are: the tuition deposit, the commuter parking decal fee, the returned check fee, the health insurance premium, and any other use or penalty fees which are non-refundable.

Please note that federal regulations require that if you have received federal financial aid funds, you will only be eligible to receive the same percentage of these funds according to the refund schedule, based upon your official date of withdrawal. If you do not submit a "Notification of Withdrawal" form and the University determines that you have withdrawn you will only be eligible to receive up to 50% of your Federal financial aid funds. You will be responsible to pay any balance due the University if financial aid funds are reduced.

Changing Enrollment Status

The student may change their web registration prior to the end of the course Add/Drop period and complete a "Change of Status" form at the Office of the University Registrar on or before the end of the Course Add/Drop period in order to receive any applicable refund.

INTERNATIONAL STUDENT FEES

Framingham State University issues I-20 Forms (Certificates of Eligibility for F-1 Visas) to students accepted and enrolled in full-time programs of study only. Currently, the only full-time graduate programs at Framingham State University are the M.S. with the concentration in Food and Nutrition program and the M.B.A. program. Students enrolled in the M.S. with the concentration in Food and Nutrition program register through the Day Division and pay Day Division tuition and fees. M.B.A. program students register and pay through Evening Division.

THIRD PARTY PAYMENTS

All students using grants, loans, state agencies, companies, the military, and any others to cover course costs are liable for such payments or portions if these other parties or payment vehicles fail to honor or partially honor course costs.

FINANCIAL AID

The Financial Aid Office at Framingham State University assists students in meeting the costs of a college education. The basic principle behind financial aid is that the student has the primary responsibility for meeting as much of the cost of attending college as is reasonably possible. Financial aid is a supplement to the student resources if they are insufficient to meet college costs.

There are three components to determine eligibility for financial aid: cost of attendance, student contribution, and financial aid eligibility. Matriculation in a degree program and enrollment in at least two courses per semester are conditions for eligibility.

Once your financial aid eligibility is determined, a financial aid package is prepared. For graduate students, the only financial aid available is the Federal Stafford Student Loan. This loan comes in two varieties: the subsidized version and the unsubsidized version. The subsidized Stafford Loan comes out of your financial aid eligibility while the unsubsidized Stafford Loan comes out of your family contribution.

Important Information:

If a student's financial situation changes after receiving a financial aid award, the award decision may be appealed, in writing, to the Financial Aid Office. Federal regulations require students who receive Federal or State financial aid to maintain satisfactory academic progress. Students receiving financial aid should refer any questions or concerns about their academic progress to the Financial Aid Office.

Students are advised to contact the Financial Aid Office prior to withdrawing from one or more courses, as this may impact their financial aid eligibility.

Additional information is available from the Financial Aid Office, Framingham State University, 100 State Street, P.O. Box 9101, McCarthy Center, Room 515, Framingham, MA 01701-9101, 508-626-4534. Visit www.framingham.edu/financialaid.

IN-STATE TUITION RESIDENCY FOR DAY DIVISION

In order to qualify for in-state tuition, students taking Day Division courses must have maintained a residence in Massachusetts for a period of not less than one continuous calendar year preceding the beginning date of their registration. Students must complete an In-State Residency Request Form prior to the start of the semester for which they are requesting qualification. Foreign students attending Framingham State University on a student visa do not qualify for resident tuition. No student is considered to be a resident of Massachusetts solely by reason of attendance at Framingham State University.

Campus Resources

LOCATED IN THE CENTER FOR ACADEMIC SUPPORT AND ADVISING (CASA)

STUDENTS WITH DISABILITIES

Framingham State University, in compliance with the mandates of Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, offers opportunities to all students without regard to disabilities. Students with disabilities may submit documentation to the Office of Academic Support and Disability Services for consideration of academic accommodations. For documentation guidelines or student specific information, call the Director of Academic Support at 508-626-4906.

There are four TTY's (telecommunications for the deaf) on campus; Admissions Office at 508-626-4500 (V/TTY); Disability Services Office at 508-626-4627 (V/TTY); Public Safety and Police Services at 508-626-4911 or 508-626-4008 (TTY); and Whittemore Library at 508-626-4655 (TTY).

LOCATED IN FOSTER HALL

THE COUNSELING CENTER

The Counseling Center enhances learning and personal development through its professional services which include individual, couples, family, and group counseling as well as outreach programs. Staffed by clinical social workers, social work interns, and a psychiatric clinical nurse, the Center assists students in exploring and coping with personal concerns. Confidentiality is assured to the fullest extent of the law. The Counseling Center is located in the Health and Wellness Center in Foster Hall.

HEALTH SERVICES

Health Services functions as a center for the treatment of episodic illness and health maintenance. A staff of nurse practitioners, nurses and consulting physicians provides the management of acute and chronic illness, health education, and preventative medicine. In addition, the department sponsors and coordinates health education programs in cardiopulmonary fitness, weight management, women's health, substance abuse, skin cancer, integrative health, sexual assault and rape prevention.

All full-time students (3 course-credits or more, any combination of day and evening classes) must meet the pre-entrance immunization requirements, based on Massachusetts Law No. 5871. The Medical History and Physical Exam portions must be completed in order to utilize the Health Center and obtain resident housing. Specific requirements are detailed in the medical forms. The department also coordinates the Student Health Insurance Program. Per state and federal laws, all fulltime students must be covered by health insurance. Questions regarding this state-mandated program may be directed to this office, located in the Health and Wellness Center in Foster Hall. Questions specific to health insurance billing/charges should be directed to Student Accounts, located in the McCarthy Campus Center, 5th Floor.

LOCATED IN THE HEMENWAY HALL

EDUCATION TECHNOLOGY OFFICE

The Education Technology Office promotes and supports the "advanced technology" component of the University's mission. Office staff members administer the University's Blackboard server for web-based and web-enhanced courses, provide planning and support for the academic components of the laptop program, and provide a wide range of professional development workshops in the Leonhard Multimedia Lab. Through a combination of these experiences, the University typically hosts approximately 40 online course sections in Graduate and Continuing Education plus 100 Web-enhanced course sections for campus-based undergraduate courses each term. The offices are located in Hemenway Hall G05 and G09.

LOCATED IN THE MCCARTHY CAMPUS CENTER

ACADEMIC TRANSCRIPTS/ENROLLMENT VERIFICATIONS

Official transcripts may be ordered online from the Office of the University Registrar at http://www.framingham.edu/registrar/transcripts.htm. There is a \$3.00 transcript fee for each request. Letters of Enrollment Verification may be obtained by completing the appropriate form, available in the Office of the University Registrar. A written request may be submitted in lieu of the form. The signature of the student is required before a transcript or verification letter may be released or sent.

CAREER SERVICES

Career Services offers a wide range of career planning and job search resources. The office provides individual career counseling and an extensive Career Resource Center collection. Students are advised to use the office often and early during their studies.

Career counselors are available to assist with career planning and the preparation of resumes and cover letters. Listings for internships, as well as for full and part time jobs, are available through the <u>Office of Career Services</u>, located in the McCarthy Campus Center, on the fourth floor.

INTERNATIONAL STUDENT EXCHANGE AND STUDY ABROAD PROGRAMS

The Office of International Students is responsible for all international student programs and upholding the regulations governing their status as students. The Office provides international students with answers to questions and assists them in addressing and resolving issues and concerns that are unique to their status at the University. Support is provided to these students from the time they are accepted at the University throughout their academic experience. International students receive assistance with the many forms required by the Department of Homeland Security and are kept informed and updated on DHS regulations as they apply to their status as F-1 Visa students. The Office encourages these students to share their culture and customs with other students, faculty, staff, and area schools and organizations.

The Office of International Education and Study Abroad Programs Office is located in D. Justin McCarthy Campus Center 518. Additional information can be obtained by calling 508-626-4585.

FRAMINGHAM STATE UNIVERSITY POLICE DEPARTMENT

The Framingham State University Police Department is committed to providing protection for the lives and property of the University community. The Campus Police are professionally trained police officers that are licensed as Special State Police and sworn in as Middlesex County Deputy Sheriffs. The Campus Police perform the same duties as your local city or town police departments, conducting all investigations of incidents within their jurisdiction. The Department enforces state statutes, town ordinances and the rules and regulations of the University in an effort to promote a secure and safe campus. Some additional services provided by the department include non-emergency transportation to and from the local emergency room, motor vehicle lockouts, traffic control, court appearances and parking enforcement. The Department also provides personal safety-related programs throughout the year. Any group wishing to have a safety program for their organization, club, or class may contact the Framingham State University Police Department at 508-626-4911.

LOCATED IN WHITTEMORE LIBRARY

LIBRARY SERVICES

The Henry Whittemore Library provides a combination of traditional and modern resources and services to the University's students, faculty, and staff. Local holdings include approximately 206,724 volumes of print materials, 326 periodical titles and 668,330 units of microforms. This basic core of resources supports the curricula of all academic departments of the University and is systematically kept current with new acquisitions as selected by specialized staff and requested by faculty and students.

As a member of the Minuteman Library Network (MLN), the Library's holdings are supplemented by an on-line catalog (OPAC) accessing more than 5.2 million volumes held in the combined collections of 41 regional libraries. Inter-library loan requests may be placed electronically, and shuttle delivery moves 8,000 or more such items to and from the Henry Whittemore Library annually. A similar volume of materials is electronically accessed and requested as needed from among the 600 member libraries of the New England Library Information Network (NELINET) and the 13,000 member libraries of the On-line Computer Library Center (OCLC).

The Library offers access to approximately 50 electronic journal and newspaper databases with over 15,000 titles in full-text. These databases, as well as Internet access, are available within the library and throughout the campus-wide network.

Reference services, basic and course-related library instruction, and point-of-use guidance support effective delivery of computerized resources, while traditional library skills and research methods are taught as integral to the continuously evolving information technology. Electronic databases are also available to off-site students and faculty.

Also administered within the Library are the units of Archives/Special Collections which include historical materials unique to the University, and the Curriculum Library - a large, separate collection of model K-12 materials supporting studies in Education.

Framingham State University Graduate Programs

MASTER OF ARTS (M.A.)

Concentrations in:

Counseling Psychology
(Licensure and Non-Licensure tracks)

MASTER OF BUSINESS ADMINISTRATION (M.B.A.)

Concentrations in:

Management

Healthcare Management

MASTER OF EDUCATION (M.Ed.)

Concentrations in:

Art

Curriculum and Instructional Technology (offered online)

Early Childhood Education

Educational Technology (offered online)

Elementary Education

Literacy and Language

Mathematics

Nutrition Education (offered online)

Specializations in:

Nutrition Education Specialist

School Nutrition Specialist

Special Education

Science Technology, Engineering, and Math (STEM)

The Teaching of English as a Second Language

MASTER OF HEALTHCARE ADMINISTRATION (M.H.A.)

Concentrations in:

Healthcare Administration

MASTER OF HUMAN RESOURCES (M.H.R.)

Concentrations in:

Human Resource Management

MASTER OF PUBLIC ADMINISTRATION (M.P.A.)

Concentrations in:

Public Administration

MASTER OF SCIENCE (M.S.)

Concentrations in:

Food and Nutrition

Specializations in:

Coordinated Programs in Dietetics Food Science and Nutrition Science

Nutrition Science and Informatics

Merchandising

MASTER OF SCIENCE IN NURSING (M.S.N.)

Concentrations in:

Nursing Education

Nursing Leadership

PROFESSIONAL SCIENCE MASTERS (P.S.M.)

Concentrations in:

Biotechnology

Specialization in:

Quality Assurance

GRADUATE CERTIFICATES

Assistive Technology School Nutrition Specialist

Assistive Technology with Advanced Special Needs
Internship

Internship STEM Education

Healthcare Administration Teaching of English as a Second

Human Resource Management Language (TESL)

Instructional Technology Proficiency Quality Assurance for Biotechnology (online)

Merchandising Nursing Education (Post-Graduate)

Nursing Leadership (Post-Graduate)

Nursing Education

Public Administration

Master of Arts concentration in Counseling Psychology -Licensure Track

Program Coordinator: Dr. Deborah McMakin
Program Advisors: Dr. Deborah McMakin

Dr. Robert Donohue Dr. Bridgett Galvin

The Master of Arts (M.A.) with a concentration in Counseling Psychology- Licensure track combines theoretical aspects with practical counseling skills to prepare the student to work effectively as a counselor in the mental health field. Foundational courses provide a strong foundation in psychology with emphasis on current theories, research, and applications of a variety of counseling approaches. Additionally, courses are designed to integrate theory with practice. A culminating internship experience must be arranged at a site affiliated with or approved by the Department of Psychology. This program fulfills all academic and internship requirements established to prepare students who qualify as a Licensed Mental Health Counselor (LMHC) by the State of Massachusetts Board of Registration of Allied Mental Health Professions of 2004.

Admission Requirements

Admission to the program is a competitive process. Individuals possessing a baccalaureate degree in any major from a regionally accredited institution are eligible to apply for admission. Admissions are accepted only for enrollment for the fall semester. Students wishing to enroll in courses prior to matriculation to the program are restricted to enrollment in the following two courses and must have completed all undergraduate prerequisites:

CPSY 901 Theories of Psychotherapy and Counseling

CPSY 911 Orientation to Counseling Practice

Applicants are evaluated based on numerous factors including previous college course work; Graduate Record Examinations scores or Miller Analogies score; letter of recommendation; and a personal statement. The personal statement describes the applicant's goals and reasons for applying to the graduate program.

- 1. Applicants must have earned a baccalaureate degree from a regionally accredited college or university.
- Applicants are required to possess an overall undergraduate grade point average of at least 2.80 on a 4.00 scale, with a 3.00 grade point average in undergraduate psychology courses.
- 3. Applicants must obtain a combined, total score of 290 on the verbal and quantitative portions of the Graduate Record Exam (GRE) or a minimum of 450 on the Miller Analogies Test (MAT). Applicants who possess a graduate degree and/or possess an overall undergraduate grade point average of at least 3.00 on a 4.00 scale are exempt from submitting GRE or MAT scores.
- Applicants must submit three letters of recommendation and a 500-word personal statement.

5. The following undergraduate psychology courses must have been completed with the last ten years prior to matriculation: Introductory Psychology, Psychology of Personality, Abnormal Psychology, and a course in Developmental Psychology (i.e. child, adolescent, adulthood and aging, lifespan). Students with a satisfactory score on an Introductory General Psychology CLEP exam may waive this prerequisite.

The admissions committee will begin review of applicant materials upon receipt of all required documents. Complete applications include: application form, three letters of recommendation, GRE or MAT scores (applicants who possess a graduate degree and/or possess an overall undergraduate grade point average of a least 3.00 on a 4.00 scale are exempt from submitting GRE or MAT score), a 500-word personal statement, and all official undergraduate transcript(s) indicating prerequisites listed above. Applicants may be invited for a personal interview as part of the admissions requirement.

Professional Growth and Suitability Evaluation

Due to the sensitive nature of the duties and responsibilities a mental health counselor must perform, applicants are also periodically screened and evaluated for their professional suitability and growth. The University and the faculty associated with the Counseling Psychology program assume responsibility for ensuring that graduates of the program possess both the academic knowledge and the personal attributes required of all persons who aspire to be licensed professional counselors.

Therefore, students are evaluated on suitability for continuation in the program throughout their program of study. At the conclusion of each course, the instructor evaluates students on both academic competence and professional suitability. These evaluations may be used for one of the following:

- 1. Admission criteria for the Counseling Psychology Program
- 2. Continuation of matriculated status in the program

Students will be evaluated in content courses and application courses (i.e. practicum and internship experiences). At any time, a matriculated student who is judged to be in question for continuation in the program will be apprised of the specific deficiencies noted by the Professional Review Committee and may be allowed to continue in the program on a probationary basis. A second continuation evaluation will be conducted. If the student is still deemed to be deficient, the student will be disallowed from continuation in the Counseling Psychology program. Students who complete the initial two-year sequence of courses but are terminated from the licensure program may apply to the non-licensure track.

Program Requirements for Licensure Track

Successful completion of the following courses will fulfill the requirements for Licensure as a Mental Health Counselor in the State of Massachusetts established by the Board of Allied Mental Health and Human Service Professions. Substitutions and transfer credit for the following courses are strongly discouraged and may invalidate the degree requirements relative to licensure.

Counseling Theory:

CPSY 901 Theories of Psychotherapy and Counseling

Human Growth and Development:

CPSY 964 Advanced Principles of Learning and Development

Psychopatholog y:

CPSY 925 Adult Psychopathology

Social Cultural Foundations:

CPSY 945 Multicultural Counseling: Research, Theory, and Practice

Master of Arts Framingham State University Graduate Catalog 2016-2017 Concentration in Counseling Psychology - Licensure Track

Helping Relationships:

CPSY 911 Orientation to Counseling Practice

Group Work:

CPSY 910 Group Processing in Counseling

Special Treatment Issues (one required, one elective):

CPSY 943 Family Counseling-required

CPSY 919 Problems of Substance Abuse- elective

CPSY 966 Assessment, Diagnosis and Treatment Planning-elective

Appraisal:

CPSY 962 Theories and Methods of Psychological Testing

Research and Evaluation:

CPSY 956 Understanding Social Science Research

Professional Orientation

CPSY 921 Professional Issues in Counseling and Mental Health

Clinical Field Experience Requirements:

CPSY 990 Counseling Practicum I

CPSY 991 Counseling Practicum II

CPSY 998 Counseling Internship I

CPSY 999 Counseling Internship II

Additional Information on Internship Clinical Experience

The courses CPSY 998 Counseling Internship I and CPSY 999 Counseling Internship II are offered during consecutive fall and spring semesters. Each enrollment requires a minimum of 300 clock hours for a combined total of a minimum of 600 clock hours. Students should expect to devote a minimum of 20 clock hours per week at their internship site for two consecutive semesters.

For students who wish to begin their internship in the summer, three consecutive internship courses are required: *CPSY 987 Counseling Internship A, CPSY 988 Counseling Internship B*, and *CPSY 989 Counseling Internship C*. These internships consist of no less than 200 clock hours for a combined total of a minimum of 600 clock hours. Students electing to complete CPSY 987 A, the summer internship, MUST enroll in CPSY 998 B and CPSY 989 C in subsequent fall and spring semesters. This sequence may be substituted for the CPSY 998/ CPSY 999 Internship sequence.

Students must obtain an Internship Application from the graduate office. A completed application for summer enrollment is due March 1st. For fall enrollment the application is due no later than May 1st. Placement is strongly encouraged at one of the University's affiliated sites. Students must interview at their internship site whether college affiliated or otherwise.

At the successful completion of each internship course, students must submit a completed Internship Report along with documentation of the site supervisor's credentials. This information is necessitated by State Licensure requirements. All students must be favorably reviewed for continuation by the departmental Professional Review Committee prior to the enrollment in the internship. Unsuccessful completion of any internship course will result in termination from the program.

Enrollment Plan

The following sequence is designed for matriculated students who wish to complete the program in three years. The student should note that summer courses are required for completion of the program. Courses must be taken in sequential order and require graduate advisor approval prior to enrollment.

Vear	1	Ī

Year 1		
	<u>Fall</u>	
	CPSY 911	Orientation to Counseling Practice
	CPSY 956	Understanding Social Science Research
	<u>Spring</u>	
	CPSY 901	Theories of Psychotherapy and Counseling
	CPSY 964	Advanced Principles of Learning and Development
Summer	I (See Below)	
Year II		
	<u>Fall</u>	
	CPSY 925	Adult Psychopathology
	CPSY 990	Counseling Practicum I
	<u>Spring</u>	
	CPSY 921	Professional Issues in Counseling and Mental Health
	CPSY 991	Counseling Practicum II
Summer	II (See Below)	
Year III	I	
	<u>Fall</u>	
	CPSY 943	Family Counseling
	CPSY 998	Counseling Internship I
	<u>Spring</u>	
	CPSY 945	Multicultural Counseling
	CPSY 999	Counseling Internship II

Summer Coursework

Three summer courses are required to complete the program. Following successful completion of Year I and/or Year II coursework, matriculated students may take one to three of these required courses per summer.

The following required courses are offered every summer for students who have successfully completed Year I and/or Year II courses, as outlined above:

CPSY 910	Group Processing in Counseling
CPSY 962	Theories and Methods of Psychological Testing

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One of the following Special Treatment electives will be offered every summer for students who have successfully completed Year I and/or Year II courses:

CPSY 919 Problems of Substance Abuse

CPSY 966 Assessment, Diagnosis and Treatment Planning

In addition to the M.A., Concentration in Counseling Psychology- Licensure Track, the department also offers a M.A. in Counseling Psychology- Non- Licensure Track that does not lead to licensure as a LMHC. This degree is intended for those students who are seeking an academic master's degree or a second master's degree as prescribed by the Massachusetts Psychological Association (MPA) Licensing Board.

COURSE DESCRIPTIONS

CPSY 901 Theories of Psychotherapy and Counseling

An examination of the theoretical, empirical bases, and application of the various counseling models. Students explore the nature of the client-therapist relationship in the context of different approaches and techniques of psychotherapy and counseling (e.g., psychoanalytic, behavior modification, client centered, rational-emotive, and family systems). *Note: This course is open to non-matriculated students*.

Prerequisites: Psychology of Personality or Abnormal Psychology or the equivalent

CPSY 910 Group Processes in Counseling

The study of theories of organization, structure and dynamics of groups (e.g., therapeutic, psychosocial, and psychoeducational including techniques of group leadership. Through an experiential component, students have an opportunity to apply group theory and models relevant to a counseling setting.

Prerequisites: CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, CPSY 901 Theories of Psychotherapy and Counseling, and CPSY 964 Advanced Principles of Learning and Development; or permission of Program Coordinator.

CPSY 911 Orientation to Counseling Practice

Designed to provide a laboratory-based experience focusing on the theoretical bases of the helping process. The development of basic counseling skills needed to work with individuals, couples, and families are explored. Listening and feedback skills, as well as the counselor-client relationship are covered. Evaluations are based on in-class role-playing, along with audio and video presentations. Counselor interpersonal style and theoretical orientation. *Note: This course is open to non-matriculated students*.

Prerequisites: Psychology of Personality or Abnormal Psychology or the equivalent

CPSY 919 Problems of Substance Abuse

Examines various aspects of substance abuse including cuases, prevention, recognition, theories and treatment. Various treatment modes will be discussed (e.g., nutritional, pharmacological and psychological). Note: This course includes three clock hours addressing ethics.

CPSY 921 Professional Issues in Counseling and Mental Health

A consideration of the ethical and legal issues relevant to the counseling and mental health professions. This course reviews the ethical principles of the American Psychological Association and the American Counselor Association. The history of the counseling profession is covered with emphasis on the emerging role of the mental health counselor. Topics explored include certification, licensure, federal and state regulations (e.g., confidentiality, duty to warn), and professional identity.

CPSY 925 Adult Psychopathology

An examination of the current paradigms in abnormal psychology in terms of their historical development, current status and the consequences of adopting a particular paradigm. Students analyze assessments, diagnosis and treatment planning procedures. Controversies in classification of abnormal behaviors and diagnostic issues are discussed in terms of the most recent version of the Diagnostic and Statistical Manual of Mental Disorders.

Prerequisites: CPSY 901 Theories of Psychotherapy and Counseling, CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, and CPSY 964 Advanced Principles of Learning and Development.

CPSY 930 Case Study in Psychology

Develops skills in the application of psychological knowledge and methods to the analysis of case material on individuals and to develop the ability to obtain and integrate psychological data on the individual into a case study.

Prerequisites: CPSY 901 Theories of Psychotherapy and Counseling, and CPSY 925 Adult Psychopathology.

CPSY 931 Solution-Focused Fundamentals and Practice

An introduction to foundational knowledge, training and practice in the Solution-Focused approach. Based on the standards set by the International Association of Solution-Focused Training institutes (IASTI), the course reviews the evolution of Solution-Focused Brief Therapy, the core therapeutic elements of this approach and current evidence supporting it, and delineates this approach from other therapeutic models.

Prerequisites: Students must possess a bachelor's degree in a human service field (e.g., counseling, social services, nursing, psychology, medicine, education, nutrition, teaching), and be licensed or credentialed to practice in the field within their jurisdiction, or work in a human service related organization under supervision. Counseling Psychology Program Coordinator approval is required.

CPSY 943 Issues in Family Counseling

A review of various perspectives on marriage and family counseling in the context of their theoretical bases. The primary emphasis is on the family as a dynamic system focusing on the interactions among members, rather than on the individuals themselves. Psychopathology and functional interactions in families, as well as strategies for affecting change in the system, are examined.

Prerequisites: CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, CPSY 901 Theories of Psychotherapy and Counseling, and CPSY 964 Advanced Principles of Learning and Development, CPSY 990 Practicum I and CPSY 991 Practicum II.

CPSY 945 Multicultural Counseling: Research, Theory and Practice

Designed to provide counselors, teachers, and other human service workers with deeper insight and keener perceptions of the unique experience and lifestyles of people who have been labeled "minority". Students examine the impact of culture as it relates to the counseling process. Moreover, in-depth characterization of family structure, world view, and interpersonal styles of African-American, Asian-American, Hispanic-American, and Native American groups are explored. Cultural self-awareness and responsiveness, and their application to multicultural counseling techniques and skills are considered. **Prerequisites:** CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, CPSY 901 Theories of Psychotherapy and Counseling, and CPSY 964 Advanced Principles of Learning and Development, CPSY 990 Practicum I and CPSY 991 Practicum II.

CPSY 952 Topics in Substance Abuse Counseling

An advanced substance abuse counseling course focusing on nicotine and caffeine dependence, AIDS and HIV awareness, and cross-cultural issues in substance abuse. Prerequisites: CPSY 919 Problems of Substance Abuse or CPSY 943 Issues in Family Counseling.

Master of Arts Concentration in

Counseling Psychology - Licensure Track

An introduction to the research principles needed for understanding and critically evaluating various types of research including program evaluation and needs assessments. Research articles in counseling are used to illustrate the concepts required for understanding the role of theory in research; the development of testable questions and hypotheses; the use of appropriate research methods, research designs and data analysis; and the drawing of appropriate conclusions from the study as well as ethical and legal issues. Emphasis is placed on conceptual understanding rather than on formulas and computations.

CPSY 962 Theories and Methods of Psychological Testing

An introduction to testing concepts and clinical testing procedures needed for the understanding and utilization of psychological evaluation reports. Various instruments, including intelligence, personality, projective and achievement tests, which are commonly employed in the preparation of psychological reports, are examined and discussed. Topics also include the theory and methods of psychological measurement, test development, statistical procedures in psychometrics, reliability, validity, test administration and interpretation, and the uses and limitations of published evaluation instruments for counseling purposes.

Prerequisites: CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, CPSY 901 Theories of Psychotherapy and Counseling, and CPSY 964 Advanced Principles of Learning and Development; or permission of the Program Coordinator.

CPSY 964 Advanced Principles of Learning and Development

An examination of developmental psychology in historical perspective and of the assumptions and values of developmental research strategies. Major developmental theories are reviewed with an emphasis on those of Piaget and Erikson, thus integrating the contributions of dialectic (systems) perspective. A major goal of the course is to identify life-span developmental issues such as the nature of developmental change and its relationships to familial and societal variables. A final goal is the application of knowledge arising from developmental research and theory to counseling practice (e.g., human services, social policies). Class members are assisted in applying developmental concepts and research data to phenomena occurring within a particular age group, (e.g. infancy, middle childhood, young adulthood), or to a psychological process (e.g., memory, learning, separation, friendship), which continues or recurs throughout the life span.

Prerequisite: A developmental psychology course (e.g., child, adolescent psychology, adulthood and aging or a life span developmental course). Note: Also open to students matriculated in the M.Ed. concentration in Early Childhood Education Program.

CPSY 966 Assessment, Diagnosis and Treatment Planning

Focuses on the development of specific clinical skills associated with intake processing, DMS diagnosis, and treatment planning. Consideration is also given to various intervention strategies for diverse clients, techniques for crisis intervention treatment planning, and the role of multidisciplinary team approaches in managed health care systems. Legal and ethical issues relating to diagnosis are reviewed.

CPSY 987 Counseling Internship A

Provides the student with an opportunity for a supervised experience in mental health counseling. This course integrates the foundations of counseling theory and practice. It is the final preparation stage for future employment. Students will receive supervision for the experience by both a site supervisor at the cooperating agency and a college supervisor for the course. The student must complete a total of 200 clock hours, of which, 80 hours must be of direct service work with clientele, 6 hours must be of 1-1 supervision by on-site supervisor and 10 hours must be of group supervision by faculty supervisor. The remaining hours may be comprised of any combination of the above and/or administrative tasks required by the placement agency for a total of 200 hours. Taken together for a total of 600 hours, CPSY 987 Counseling Internship A, CPSY 988 Counseling Internship B, and CPSY 989 Counseling Internship C, fulfills the internship requirement for licensure as a Mental Health Counselor in Massachusetts. Students can only register for CPSY 987 during the summer semester and will be required to enroll in CPSY 988 (fall) and CPSY 989 (spring) to complete their degree program.

Prerequisites: Successful completion of CPSY 991 Counseling Practicum II and permission of advisor. Not open to students who have completed CPSY 998 Counseling Internship I or CPSY 999 Counseling Internship II.

Master of Arts Concentration in

Counseling Psychology - Licensure Track

CPSY 988 Counseling Internship B

Provides the student with an opportunity for a supervised experience in mental health counseling. This course integrates the foundations of counseling theory and practice. It is the final preparation stage for future employment. Students will receive supervision for the experience by both a site supervisor at the cooperating agency and a college supervisor for the course. The student must complete a total of 200 clock hours, of which, 80 hours must be of direct service work with clientele, 6 hours must be of 1-1 supervision by on-site supervisor and 10 hours must be of group supervision by faculty supervisor. The remaining hours may be comprised of any combination of the above and/or administrative tasks required by the placement agency for a total of 200 hours. Taken together for a total of 600 hours, CPSY 987 Counseling Internship A, CPSY 988 Counseling Internship B, and CPSY 989 Counseling Internship C, fulfills the internship requirement for licensure as a Mental Health Counselor in Massachusetts. Students can only register for CPSY 987 during the summer semester and will be required to enroll in CPSY 988 (fall) and CPSY 989 (spring) to complete their degree program.

Prerequisites: Successful completion of CPSY 987 Counseling Internship A and permission of advisor. Not open to students who have completed CPSY 998 Counseling Internship I or CPSY 999 Counseling Internship II.

CPSY 989 Counseling Internship C

Provides the student with an opportunity for a supervised experience in mental health counseling. This course integrates the foundations of counseling theory and practice. It is the final preparation stage for future employment. Students will receive supervision for the experience by both a site supervisor at the cooperating agency and a college supervisor for the course. The student must complete a total of 200 clock hours, of which, 80 hours must be of direct service work with clientele, 6 hours must be of 1-1 supervision by on-site supervisor and 10 hours must be of group supervision by faculty supervisor. The remaining hours may be comprised of any combination of the above and/or administrative tasks required by the placement agency for a total of 200 hours. Taken together for a total of 600 hours, CPSY 987 Counseling Internship A, CPSY 988 Counseling Internship B, and CPSY 989 Counseling Internship C, fulfills the internship requirement for licensure as a Mental Health Counselor in Massachusetts. Students can only register for CPSY 987 during the summer semester and will be required to enroll in CPSY 988 (fall) and CPSY 989 (spring) to complete their degree program.

Prerequisites: Successful completion of CPSY 988 Counseling Internship A and permission of advisor. Not open to students who have completed CPSY 998 Counseling Internship I or CPSY 999 Counseling Internship II.

CPSY 990 Counseling Practicum I

A laboratory experience which provides training in counseling skills and professional development. Students are instructed in a variety of counseling techniques through the use of videotaped, audio-taped and live counseling sessions with peers and/or coached clients. Additional topics include professional ethics, responsibilities, legal issues and employment options. Practicum I, together with CPSY 991 Practicum II, fulfills the practicum requirement for licensure as a Mental Health Counselor.

Prerequisite: Permission of the program coordinator and instructor. Open to matriculated students in the Master of Arts in Counseling Psychology Licensure track program only.

CPSY 991 Counseling Practicum II

A continuation of Practicum I laboratory training in counseling skills and professional development. Students are instructed in a variety of counseling techniques through the use of videotaped, audio-taped and live counseling sessions with peers and/or coached clients. Placement into an internship site for the following academic year is discussed as part of Practicum II. Additional topics include professional ethics, responsibilities, legal issues and employment options. Practicum II, together with CPSY 990 Practicum I, fulfills the practicum requirement for licensure as a Mental Health Counselor.

Prerequisite: Successful completion of CPSY 990 Counseling Practicum I.

Counseling Psychology - Licensure Track

CPSY 995 Directed Study in Psychological Research

An opportunity for advanced students in psychology to develop further their understanding of the research principles necessary for critically evaluating published articles in the professional literature by actively participating in the research process at the graduate level. Students will develop advanced research skills by working with a professor to complete ongoing research in the field or to develop a joint project supervised by the instructor. Students will master skills necessary for reviewing literature, developing research hypotheses, writing proposals, integrating the theories relevant to the project, and drawing the appropriate conclusion. Students may also apply basic statistical knowledge to data collected, and develop an understanding of computer assisted statistical analysis packages. Prerequisite: CPSY 956 Understanding Social Science Research; or permission of the graduate advisor and program coordinator.

CPSY 996 Directed Study in Counseling Psychology

Provides students with the opportunity for faculty-supervised experience in counseling psychology that can be tailored to their specific interests or needs. Two semester hours credit. The course may be taken twice.

Prerequisite: Permission of the program coordinator and instructor. Open to matriculated students in the Master of Arts in Counseling Psychology Program.

CPSY 998 Counseling Internship I

Provides the student with an opportunity for a supervised experience in counseling. The student is guided by the cooperating agency and the college instructor in counseling. CPSY 998 Counseling Internship I, together with CPSY 999 Counseling Internship II, fulfills the internship requirement for licensure as a Mental Health Counselor in Massachusetts. Prerequisite: Successful completion of CPSY 991 Counseling Practicum II and permission of advisor. Not open to students who have completed CPSY 987, CPSY 988 or CPSY 989, Counseling Internships A, B, or C.

CPSY 999 Counseling Internship II

Continuation of the internship which provides further opportunity for a supervised experience in counseling. The student is guided by the cooperating agency and the college instructor in counseling. CPSY 999 Counseling Internship II, together with CPSY 998 Counseling Internship I, fulfills the internship requirement for licensure as a Mental Health Counselor in Massachusetts.

Prerequisite: Successful completion of CPSY 998 Counseling Internship I. Not open to students who have completed CPSY 987, CPSY 988 or CPSY 989, Counseling Internships A, B, or C.

Master of Arts concentration in Counseling Psychology Non-Licensure Track

Program Coordinator: Dr. Deborah McMakin
Program Advisors: Dr. Deborah McMakin

Dr. Robert Donohue

Dr. Bridgett Galvin

The Master of Arts, Concentration in Counseling Psychology - Non-Licensure track provides a theoretical understanding of the issues related to the helping profession. Students receive a strong foundation in psychology and in current theories, data, and research related to counseling approaches. Note: This 40-credit hour program does not prepare the student to work as a counselor or lead to licensure.

Admission Requirements

Admission to the program is a competitive process. Individuals possessing a baccalaureate degree in any major from a regionally accredited institution are eligible to apply for admission. Admissions are accepted only for enrollment for the fall semester. Students wishing to enroll in courses prior to matriculation to the program are restricted to enrollment in the following two courses and must have completed all undergraduate prerequisites:

CPSY 901 Theories of Psychotherapy and Counseling

CPSY 911 Orientation to Counseling Practice

Applicants are evaluated based on numerous factors including previous college course work; Graduate Record Examinations scores or Miller Analogies score; letter of recommendation; and a personal statement. The personal statement describes the applicant's goals and reasons for applying to the graduate program.

- Applicants must have earned a baccalaureate degree from a regionally accredited college or university.
- 2. Applicants are required to possess an overall undergraduate grade point average of at least 2.80 on a 4.00 scale, with a 3.00 grade point average in undergraduate psychology courses.
- 3. Applicants must obtain a combined, total score of 290 on the verbal and quantitative portions of the Graduate Record Exam (GRE) or a minimum of 450 on the Miller Analogies Test (MAT). Applicants who possess a graduate degree and/or possess an overall undergraduate grade point average of at least 3.00 on a 4.00 scale are exempt from submitting GRE or MAT scores.
- Applicants must submit three letters of recommendation and a 500-word personal statement.
- 5. The following undergraduate psychology courses must have been completed with the last ten years prior to matriculation: Introductory Psychology, Psychology of Personality, Abnormal Psychology, and a course in Developmental Psychology (i.e. child, adolescent, adulthood and aging, lifespan). Students with a satisfactory score on an Introductory General Psychology CLEP exam may waive this prerequisite.

Concentration in Counseling Psychology - Non-Licensure Track

The admissions committee will begin review of applicant materials upon receipt of all required documents. Complete applications include: application form, three letters of recommendation, GRE or MAT scores (applicants who possess a graduate degree and/or possess an overall undergraduate grade point average of at least 3.00 on a 4.00 scale are exempt from submitting GRE or MAT score), a 500-word personal statement, and all official undergraduate transcript(s) indicating prerequisites listed above. Applicants may be invited for a personal interview as part of the admissions requirement.

Professional Growth and Suitability Evaluation

Due to the sensitive nature of the duties and responsibilities a mental health counselor must perform, applicants are also periodically screened and evaluated for their professional suitability and growth. The University and the faculty associated with the Counseling Psychology program assume responsibility for ensuring that graduates of the program possess both the academic knowledge and the personal attributes required of all persons who aspire to be licensed professional counselors.

Therefore, students will be evaluated on suitability for continuation in the program throughout their program of study. At the conclusion of each course, the instructor will evaluate students on both academic competence and professional suitability. These evaluations may be used for one of the following:

- 1. Admission criteria for the Counseling Psychology Program
- 2. Continuation of matriculated status in the program

Students will be evaluated in content courses and application courses (i.e. practicum and internship experiences). At any time, a matriculated student who is judged to be in question for continuation in the program will be apprised of the specific deficiencies noted by the Professional Review Committee and may be allowed to continue in the program on a probationary basis. A second continuation evaluation will be conducted. If the student is still deemed to be deficient, the student will be disallowed from continuation in the Counseling Psychology program. Students who complete the initial two-year sequence of courses but are terminated from the licensure program may apply to the non-licensure track.

Program Requirements for Non-Licensure Track

This program requires successful completion of 10 course-credits (40 semester hours). Completion of this degree does NOT lead to licensure as a Mental Health Counselor.

Core Requirements (8):

CPSY 901 Theories of Psychotherapy and Counseling

CPSY 911 Orientation to Counseling Practice

CPSY 921 Professional Issues in Counseling and Mental Health

CPSY 925 Adult Psychopathology

CPSY 945 Multicultural Counseling: Research, Theory, and Practice

CPSY 964 Advanced Principles of Learning and Development

CPSY 990 Counseling Practicum I

CPSY 991 Counseling Practicum II

Two electives to be chosen from the following (2):

CPSY 910 Group Processing in Counseling

CPSY 919 Problems of Substance Abuse- elective

CPSY 943 Family Counseling- required

CPSY 956 Understanding Social Science Research

CPSY 962 Theories and Methods of Psychological Testing

Note: Course substitutions may only be made with approval from the Program Coordinator and Advisor.

COUNSELING PSYCHOLOGY COURSE DESCRIPTIONS

CPSY 901 Theories of Psychotherapy and Counseling

An examination of the theoretical, empirical bases, and application of the various counseling models. Students explore the nature of the client-therapist relationship in the context of different approaches and techniques of psychotherapy and counseling (e.g., psychoanalytic, behavior modification, client centered, rational-emotive, and family systems). *Note: This course is open to non-matriculated students*.

Prerequisites: Psychology of Personality or Abnormal Psychology or the equivalent

CPSY 910 Group Processes in Counseling

The study of theories of organization, structure and dynamics of groups (e.g., therapeutic, psychosocial, and psychoeducational including techniques of group leadership. Through an experiential component, students have an opportunity to apply group theory and models relevant to a counseling setting.

Prerequisites: CPSY 901 Theories of Psychotherapy and Counseling, CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, and CPSY 964 Advanced Principles of Learning and Development; or permission of Program Coordinator.

CPSY 911 Orientation to Counseling Practice

Designed to provide a laboratory-based experience focusing on the theoretical bases of the helping process. The development of basic counseling skills needed to work with individuals, couples, and families are explored. Listening and feedback skills, as well as the counselor-client relationship are covered. Evaluations are based on in-class role-playing, along with audio and video presentations. Counselor interpersonal style and theoretical orientation. *Note: This course is open to non-matriculated students*.

Prerequisites: Psychology of Personality or Abnormal Psychology or the equivalent

CPSY 919 Problems of Substance Abuse

Examines various aspects of substance abuse including cuases, prevention, recognition, theories and treatment. Various treatment modes will be discussed (e.g., nutritional, pharmacological and psychological). Note: This course includes three clock hours addressing ethics.

CPSY 921 Professional Issues in Counseling and Mental Health

A consideration of the ethical and legal issues relevant to the counseling and mental health professions. This course reviews the ethical principles of the American Psychological Association and the American Counselor Association. The history of the counseling profession is covered with emphasis on the emerging role of the mental health counselor. Topics explored include certification, licensure, federal and state regulations (e.g., confidentiality, duty to warn), and professional identity.

CPSY 925 Adult Psychopathology

An examination of the current paradigms in abnormal psychology in terms of their historical development, current status and the consequences of adopting a particular paradigm. Students analyze assessments, diagnosis and treatment planning procedures. Controversies in classification of abnormal behaviors and diagnostic issues are discussed in terms of the most recent version of the Diagnostic and Statistical Manual of Mental Disorders.

Prerequisites: CPSY 901 Theories of Psychotherapy and Counseling, CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, and CPSY 964 Advanced Principles of Learning and Development.

CPSY 931 Solution-Focused Fundamentals and Practice

An introduction to foundational knowledge, training and practice in the Solution-Focused approach. Based on the standards set by the International Association of Solution-Focused Training institutes (IASTI), the course reviews the evolution of Solution-Focused Brief Therapy, the core therapeutic elements of this approach and current evidence supporting it, and delineates this approach from other therapeutic models.

Prerequisites: Students must possess a bachelor's degree in a human service field (e.g., counseling, social services, nursing, psychology, medicine, education, nutrition, teaching), and be licensed or credentialed to practice in the field within their jurisdiction, or work in a human service related organization under supervision. Counseling Psychology Program Coordinator approval is required.

CPSY 943 Issues in Family Counseling

A review of various perspectives on marriage and family counseling in the context of their theoretical bases. The primary emphasis is on the family as a dynamic system focusing on the interactions among members, rather than on the individuals themselves. Psychopathology and functional interactions in families, as well as strategies for affecting change in the system, are examined.

Prerequisites: CPSY 901 Theories of Psychotherapy and Counseling, CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, and CPSY 964 Advanced Principles of Learning and Development, CPSY 990 Practicum I and CPSY 991 Practicum II.

CPSY 945 Multicultural Counseling: Research, Theory, and Practice

Designed to provide counselors, teachers, and other human service workers with deeper insight and keener perceptions of the unique experience and lifestyles of people who have been labeled "minority". Students examine the impact of culture as it relates to the counseling process. Moreover, in-depth characterization of family structure, world view, and interpersonal styles of African-American, Asian-American, Hispanic-American, and Native American groups are explored. Cultural self-awareness and responsiveness, and their application to multicultural counseling techniques and skills are considered. Prerequisites: CPSY 901 Theories of Psychotherapy and Counseling, CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, and CPSY 964 Advanced Principles of Learning and Development, CPSY 990 Practicum I and CPSY 991 Practicum II.

CPSY 956 Understanding Social Science Research

An introduction to the research principles needed for understanding and critically evaluating various types of research including program evaluation and needs assessments. Research articles in counseling are used to illustrate the concepts required for understanding the role of theory in research; the development of testable questions and hypotheses; the use of appropriate research methods, research designs and data analysis; and the drawing of appropriate conclusions from the study as well as ethical and legal issues. Emphasis is placed on conceptual understanding rather than on formulas and computations.

CPSY 962 Theories and Methods of Psychological Testing

An introduction to testing concepts and clinical testing procedures needed for the understanding and utilization of psychological evaluation reports. Various instruments, including intelligence, personality, projective and achievement tests, which are commonly employed in the preparation of psychological reports, are examined and discussed. Topics also include the theory and methods of psychological measurement, test development, statistical procedures in psychometrics, reliability, validity, test administration and interpretation, and the uses and limitations of published evaluation instruments for counseling purposes.

Prerequisites: CPSY 901 Theories of Psychotherapy and Counseling, CPSY 911 Orientation to Counseling Practice, CPSY 956 Understanding Social Science Research, and CPSY 964 Advanced Principles of Learning and Development; or permission of the Program Coordinator

CPSY 964 Advanced Principles of Learning and Development

An examination of developmental psychology in historical perspective and of the assumptions and values of developmental research strategies. Major developmental theories are reviewed with an emphasis on those of Piaget and Erikson, thus integrating the contributions of dialectic (systems) perspective. A major goal of the course is to identify life-span developmental issues such as the nature of developmental change and its relationships to familial and societal variables. A final goal is the application of knowledge arising from developmental research and theory to counseling practice (e.g., human services, social policies). Class members are assisted in applying developmental concepts and research data to phenomena occurring within a particular age group, (e.g. infancy, middle childhood, young adulthood), or to a psychological process (e.g., memory, learning, separation, friendship), which continues or recurs throughout the life span.

Prerequisite: A developmental psychology course (e.g., child, adolescent psychology, adulthood and aging or a life span developmental course). Note: Also open to students matriculated in the M.Ed. concentration in Early Childhood Education Program.

CPSY 990 Counseling Practicum I

A laboratory experience which provides training in counseling skills and professional development. Students are instructed in a variety of counseling techniques through the use of videotaped, audio-taped and live counseling sessions with peers and/or coached clients. Additional topics include professional ethics, responsibilities, legal issues and employment options. Practicum I, together with CPSY 991 Practicum II, fulfills the practicum requirement for licensure as a Mental Health Counselor.

CPSY 991 Counseling Practicum II

A continuation of Practicum I laboratory training in counseling skills and professional development. Students are instructed in a variety of counseling techniques through the use of videotaped, audio-taped and live counseling sessions with peers and/or coached clients. Placement into an internship site for the following academic year is discussed as part of Practicum II. Additional topics include professional ethics, responsibilities, legal issues and employment options. Practicum II, together with CPSY 990 Practicum I, fulfills the practicum requirement for licensure as a Mental Health Counselor.

Prerequisite: Successful completion of CPSY 990 Counseling Practicum I.

Program Coordinator: Dr. Sharon Wulf
Program Advisor: Dr. Sharon Wulf

The Master of Business Administration (M.B.A.) with a concentration in Healthcare Management is designed for mid-level managers and professionals in business and health care organizations who aspire to greater leadership and management roles. Students learn to link theory with practice, and to understand the multi-disciplinary demands of a business environment that is increasingly global, technology-oriented, and diverse.

Class size is typically limited to 25 students to ensure personalized attention. As students move through the curriculum, this class structure promotes personal development within a team-centric environment. Students also benefit from the variety of backgrounds and distinct experiences the each individual brings to the program as well as providing excellent networking opportunities.

The program has three (3) options for students to choose from that fits their individual circumstances best:

- 1. Attending full-time taking three (3) courses per semester over four (4) consecutive semesters (including summer) beginning in the fall semester and completing the program the following fall semester.
- 2. Attending part-time taking two (2) courses per semester over six (6) consecutive semesters (including summer) beginning in the fall semester and completing the program in the fall semester two (2) years later.
- 3. Attending part-time taking one (1) courses per semester over twelve (12) consecutive semesters (including summer) beginning in the fall semester and completing the program in the fall semester four (4) years later.

After completing this program of study, students will be able to:

- Communicate effectively in professional situations by applying appropriate written, verbal, interpersonal, and presentation skills;
- Lead, manage, and contribute as a member to project teams;
- Employ tactical, operational, and strategic decision making and problem solving to organizational issues;
- Demonstrate a fundamental understanding of the workings of all aspects of a healthcare organization;
- Analyze healthcare business issues by applying multi-functional theoretical and practical perspectives;
- Identify and develop their potential for meeting future leadership challenges and make meaningful contributions in a world characterized by uncertainty.

Admission Requirements

Admission to the MBA degree program is available to qualified individuals who hold an undergraduate degree in any major from an accredited college or university. Admission is based on professional work experience, performance in previous college/ university study, results from the Graduate Management Admissions Test (GMAT) or Graduate Record Exam (GRE), assessment of written essays, and appraisal of letters of recommendation.

Applicants are required to submit the following:

- 1. A completed Application for Graduate Admission form.
- Official copies of undergraduate and graduate transcripts (if applicable). Students who have transcripts from outside the United States must have their transcripts evaluated by a Credit Evaluation service and translated into English.
- 3. Official Graduate Management Admissions Test (GMAT) or official Graduate Record Examination (GRE) results taken within the past five years. Applicants who have completed a master's degree or a terminal degree from a United States regionally-accredited college or university or nationally accredited program may request to be exempt from submitting GMAT or GRE results.
- 4. Two written essays. Each essay should be typed or printed, single spaced and limited to the length indicated. The essay questions are:
 - a. What would you like the MBA Admissions Committee to know about you? (450-word limit);

And EITHER

b. What are your three most substantial achievements and why do you consider them to be substantial achievements? (700-word limit);

OR

- c. What experience in the military, public service, or business do you have? Explain how this experience equips you for the MBA program. (700-word limit).
- 5. Two letters of recommendation sent directly to Graduate Admissions at Framingham State University by the evaluators.
- 6. A current professional resume.
- 7. TOEFL scores (550 or higher) or IELTS scores (6.5 or higher) are required of applicants seeing admission from non-English speaking countries. The TOEFL or IELTS may be waived if the applicant has successfully completed at least two full academic years in a college/ university in the United States of America, United Kingdom, Australia, New Zealand, or Canada.
- Applicants are required to interview with the Program Coordinator and/or Program Advisor.

Evaluation of applications for admission to the program will begin only when all the required documents have been received.

Applicants seeking admission for fall should have a complete application on file no later than July 1st. Applications completed or received after the due date cannot be guaranteed timely matriculation.

The MBA Application for Admission is available online at http://www.framingham.edu/graduate-studies/masters-degrees/master-of-business-administration/index.html or contact the Graduate Admissions office at 508-626-4501.

MBA program advisors are available for consultation about the admission process, program requirements, and course selection. Individuals may make an appointment with an advisor by sending an email to MBA@framingham.edu.

Students who will be applying for admission to this program may take undergraduate prerequisite courses, if required, prior to applying for admission to the program.

Students must seek the advice of the MBA Program Advisor to determine if undergraduate prerequisites courses are required prior to applying for admission.

Students entering the MBA program are to be familiar with and have access to the Microsoft Office Suite (Word, Excel, Access, and PowerPoint) or equivalent software that support Microsoft Office Suite formats specified by and acceptable to the faculty.

Applications remaining incomplete for over one year will be considered inactive.

Additional MBA Admission criteria for International 3-year degree holders

From India: Degree must be a Bachelor in Commerce or Business; otherwise a U.S. 4-year Baccalaureate degree equivalent is required.

- 1. Official Transcripts must be evaluated by a credential evaluation service and sent to Framingham State University.
- The degree granting institution must be accredited from one of the following institutions:
 - National Assessment and Accreditation Council (NAAC)
 - National Board of Accreditation (NBA)
 - All India Council for Technical Education (AICTE)
- 3. GPA Minimum must be equivalent to a U.S. 3.00 on a 4.00 scale.
- 4. Minimum score of 400 on the GMAT or Minimum score of 440 on GRE.
- 5. Must have a grade of B (3.00) or better in each equivalent course from the following areas: Accounting, Economics, Management, and Statistics.
- 6. Minimum TOEFL score of 550 paper based (or 79-80 computer based), or IELTS scores (6.0 or higher).

Courses before Admission

Students intending to apply for admission to the MBA program are not allowed to enroll in MBA Core or Elective courses prior to official admission into the program.

Transfer Credit

Transfer credit for prior graduate coursework completed at another accredited college or university will be considered at the time of MBA admission based on course descriptions and documentation submitted with the student's application. Courses accepted in transfer must meet the academic criteria established by Framingham State University. A maximum of two (2) graduate courses may be accepted in transfer and applied toward the MBA degree program.

F-1 Student VISA Status:

Students admitted into a graduate program as on an F-1 Student Visa are required to enroll full-time during the fall and spring semesters. Students in the M.B.A program are encouraged to also enroll full-time during the summer terms if the intent is to complete the program in 16 continuous months.

Time Limits for Program Completion

All degree requirements must be met within eight (8) years from the completion date of the first MBA Core or Elective course.

Program Requirements

Each Framingham State University course is offered for one (1) course-credit, which is equivalent to four (4) semester hours. The Healthcare Management concentration consists of 12 courses (or 48 semester hours). Prior to enrolling in Core courses, students are required to fulfill four (4) undergraduate prerequisite course requirements. All course prerequisites are to be observed. Note: undergraduate prerequisites courses may be fulfilled based on previous college course work.

Students must demonstrate proficiency in the following five (5) areas: financial accounting, managerial accounting, economics, statistics and the study of leadership, teamwork and the organization. The 600-level undergraduate prerequisite courses meet proficiency requirements for the program and do not count toward MBA graduate credit.

Proficiency may be demonstrated in one of the following ways:

- Appropriate undergraduate or graduate coursework completed with a grade of B (3.00) or better earned no more than five (5) years prior to the date of application to the MBA program. The Admissions Committee will evaluate each applicant's academic record to determine whether undergraduate prerequisite requirements have been met.
- Students without appropriate prior academic coursework may demonstrate proficiency by taking a College-Level Examination Program (CLEP) test in an appropriate subject area, or may make a written request for a waiver.
- 3. Successful completion of the appropriate MBA prerequisite undergraduate course(s) <u>prior</u> to enrolling in MBA core courses. *NOTE: Prerequisite undergraduate courses may be fulfilled based on previous college course work.*

Prerequisite Undergraduate Course Requirements (4):

ACCT 653	Financial Statement Reporting and Analysis
ECON 610	Economic Analysis
MGMT 600	Foundations of Business
QUAN 676	Statistical Analysis for Managers

Healthcare Management Concentration:

Core Requirements (8):

ECON 923	The Economics of Organizational Design
FINA 929	Financial Management
MGMT 911	Organization Behavior and Theory
MGMT 935	Operations Management
MGMT 951	Human Resource Management
MRKT 917	Strategic Marketing
QUAN 905	Management Science
Capstone:	
MGMT 989	Strategic Management

Administration

Concentration in Healthcare Management

NOTE: Registration for MGMT 989 Strategic Management requires the prior written permission of the Dean of Graduate Studies. Students will not be permitted to fulfill this requirement with a course transferred from another institution.

Concentration Requirements (4):

HCAD 917 Health Law, Regulations, and Ethics
 HCAD 924 Healthcare Economics and Financing
 HCAD 940 Healthcare Informatics and Technology
 HCAD 955 Budgeting in Healthcare Facilities

COURSE DESCRIPTIONS

ECON 923 The Economics of Organizational Design

An examination of the optimal means of coordinating relationships between buyer and seller; between employer and employee; and between the firm and lenders of capital and providers of intermediate product. The three principal forms of organization, the price system, relational contracts, and ownership are examined and contrasted. Study focuses on the theory of transaction cost economics and rudimentary game theory. Topics include the principal-agent problem, the make or buy decision, adverse selection, corporate culture, and the tension between self-interest and cooperation.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

FINA 929 Financial Management

An introduction to the two fundamental financial concepts - the investment decision and the financing decision, and their possible interactions. This includes the type of assets a firm acquires, the reason(s) for acquisition, and the sources and costs of financing these assets. Assets, liabilities and capital, both short and long-term, are described using accounting terminology and evaluated using mathematical analysis (formerly 12.978).

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

HCAD 917 Health Law, Regulations and Ethics

Provides an examination of the laws, administrative regulations, and ethical issues of health care services. Topics include laws regarding patient access, fraud, public and private funding; liability and risk management; licensing and accreditation; legal issues concerning patient safety and rights, HIPPA, and medical error; and ethical issues related to health care services.

HCAD 924 Healthcare Economics and Financing

An overview of the economics and financing of health care services that includes consumers, suppliers, insurance companies and HMOs. Topics include Healthcare Consumption Demand; Healthcare Services Supply; economics of hospital operations, long-term care and cost containment; pre-paid health services and regulatory approaches based on prospective payment systems; strategies to ensure equitable access to health services; and measures to control health care and health insurance cost. The course will compare accounting systems of both non-profit and for-profit health care facilities.

HCAD 940 Healthcare Informatics and Technology

An introduction to the role of health care information and technology in today's health care industry. Topics include the management and financing of electronic health records; aligning health care information technology with health care reform; the health care claim cycle; the changing patient landscape, rise of retail clinics, and interfacing technology systems; the role of health care information technology in documenting and protecting providers.

HCAD 955 Budgeting in Healthcare Facilities

Describes the various budgetary systems and issues affecting the operation of health care facilities. The course focuses upon the development and implementation of an operating budget and annual fiscal plan. Revenue sources for the facility and allocation of resources to facility departments will be analyzed.

Prerequisites: HCAD 924 Healthcare Economics and Financing **or** HCAD 903 Financing Healthcare Services **and** QUAN 908 Quantitative Analysis for Administrators.

MGMT 911 Organization Behavior and Theory

An examination of the relationships between individuals, groups, and the organization as it relates to organization strategic performance. Participants focus on theoretical, empirical, and practical applications or organization research. Topics include motivation, group dynamics, team management, organizational injustice, decision-making, leadership, diversity and interpersonal relations.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

MGMT 935 Operations Management

An analysis of production problems and solution techniques for services, manufacturing, and distribution. Also examined are work-flow processes; production system design; production planning and control; technology of materials and equipment; control of availability, quality, cost; and price of products and resources.

Prerequisite: QUAN 905 Management Science.

MGMT 951 Human Resource Management

An examination of the major functions and strategies of human resources managers in achieving the objectives of the organization. Topics include human resource planning, recruitment and selection, training and development, performance appraisal, compensation and employee benefits, and government regulations.

Prerequisite: MGMT 911 Organization Behavior and Theory and MGMT 940 Business Ethics and Legal Environment.

MGMT 989 Strategic Management

Focused on observing, analyzing and linking an organization and its environment by providing the tools needed to analyze its present position in the global marketplace and design its future. Organizational action plans for competing successfully and operating profitably are reviewed. Selection of strategic options with the ultimate goal of moving the organization forward successfully by crafting and executing strategy in order to achieve a competitive advantage is analyzed. Evaluation of present conditions, industry segment, organization vision, and ultimately the construction and implementation of strategies appropriate to lead to competitive advantage are examined. Using real business cases, reviewing current organization's strategies, sharing historical events and assessing rigorous theories and concepts of strategic management, students learn to assimilate and utilize knowledge to become a manager whose strategic actions can make a company thrive. A combination of teaching techniques and supporting tools are employed throughout the duration of the course.

Prerequisites: May be taken concurrently with MGMT 971 Communication and Negotiation and/or MGMT 978 Leadership and Change. Completion of all other MBA courses is required. Permission of the Dean of Graduate Studies is required.

MRKT 917 Strategic Marketing

A focus on critically scanning and analyzing the external environment, defining strategic marketing decisions, developing and applying models to evaluate the alternatives and formulating recommended courses of action.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

QUAN 905 Management Science

Designed to focus on the diagnosis of problems; the representation of problems in models; mathematical or algorithmic problem solving and decision making. It introduces linear programming, integer programming, network models, project management methods (PERT/CPM), decision theory and queuing theory. It also introduces students to the use of computer programs to solve/optimize models and to the interpretation and uses of the output from the models.

Program Coordinator: Dr. Sharon Wulf
Program Advisor: Dr. Sharon Wulf

The Master of Business Administration (M.B.A.) with a concentration in Management is designed for mid-level managers and professionals in business and other organizations who aspire to greater leadership and management roles. Students learn to link theory with practice, and to understand the multi-disciplinary demands of a business environment that is increasingly global, technology-oriented, and diverse.

Class size is typically limited to 25 students to ensure personalized attention. As students move through the curriculum, this class structure promotes personal development within a team-centric environment. Students also benefit from the variety of backgrounds and distinct experiences the each individual brings to the program as well as providing excellent networking opportunities.

The program has three (3) options for students to choose from that fits their individual circumstances best:

- 1. Attending full-time taking three (3) courses per semester over four (4) consecutive semesters (including summer) beginning in the fall semester and completing the program the following fall semester.
- Attending part-time taking two (2) courses per semester over six (6) consecutive semesters (including summer) beginning in the fall semester and completing the program in the fall semester two (2) years later.
- 3. Attending part-time taking one (1) courses per semester over twelve (12) consecutive semesters (including summer) beginning in the fall semester and completing the program in the fall semester four (4) years later.

After completing this program of study, students will be able to:

- Communicate effectively in professional situations by applying appropriate written, verbal, interpersonal, and presentation skills;
- Lead, manage, and contribute as a member to project teams;
- Employ tactical, operational, and strategic decision making and problem solving to organizational issues;
- Demonstrate a fundamental understanding of the workings of all aspects of an organization;
- Analyze business issues by applying multi-functional theoretical and practical perspectives;
- Identify and develop their potential for meeting future leadership challenges and make meaningful contributions in a world characterized by uncertainty.

Admission Requirements

Admission to the MBA degree program is available to qualified individuals who hold an undergraduate degree in any major from an accredited college or university. Admission is based on professional work experience, performance in previous college/ university study, results from the Graduate Management Admissions Test (GMAT) or Graduate Record Exam (GRE), assessment of written essays, and appraisal of letters of recommendation.

Applicants are required to submit the following:

- 1. A completed Application for Graduate Admission form.
- Official copies of undergraduate and graduate transcripts (if applicable). Students who have transcripts from outside the United States must have their transcripts evaluated by a Credit Evaluation service and translated into English.
- 3. Official Graduate Management Admissions Test (GMAT) or official Graduate Record Examination (GRE) results taken within the past five years. Applicants who have completed a master's degree or a terminal degree from a United States regionallyaccredited college or university or nationally accredited program may request to be exempt from submitting GMAT or GRE results.
- 4. Two written essays. Each essay should be typed or printed, single spaced and limited to the length indicated. The essay questions are:
 - a. What would you like the MBA Admissions Committee to know about you? (450-word limit);

and either

 What are your three most substantial achievements and why do you consider them to be substantial achievements? (700-word limit);

or

- c. What experience in the military, public service, or business do you have? Explain how this experience equips you for the MBA program. (700-word limit).
- Two letters of recommendation sent directly to Graduate Admissions at Framingham State University by the evaluators.
- 6. A current professional resume.
- 7. TOEFL scores (550 or higher) or IELTS scores (6.5 or higher) are required of applicants seeing admission from non-English speaking countries. The TOEFL or IELTS may be waived if the applicant has successfully completed at least two full academic years in a college/ university in the United States of America, United Kingdom, Australia, New Zealand, or Canada.
- Applicants are required to interview with the Program Coordinator and/or Program Advisor.

Evaluation of applications for admission to the this program will begin only when all the required documents have been received.

Applicants seeking admission for fall should have a complete application on file no later than July 1st. Applications completed or received after the due date cannot be guaranteed timely matriculation.

The MBA Application for Admission is available online at http://www.framingham.edu/graduate-studies/masters-degrees/master-of-business-administration/index.html or contact the Graduate Admissions office at 508-626-4501.

MBA program advisors are available for consultation about the admission process, program requirements, and course selection. Individuals may make an appointment with an advisor by sending an email to MBA@framingham.edu.

Students who will be applying for admission to this program may take undergraduate prerequisite courses, if required, prior to applying for admission to the program. Students must seek the advice of the MBA Program Advisor to determine if Undergraduate Prerequisites courses are required prior to applying for admission.

Students entering the MBA program are to be familiar with and have access to the Microsoft Office Suite (Word, Excel, Access, and PowerPoint) or equivalent software that support Microsoft Office Suite formats specified by and acceptable to the faculty.

Applications remaining incomplete for over one year will be considered inactive.

Additional MBA Admission criteria for International 3-year degree holders

From India: Degree must be a Bachelor in Commerce or Business; otherwise a U.S. 4-year Baccalaureate degree equivalent is required.

- Official Transcripts must be evaluated by a credential evaluation service and sent to Framingham State University.
- The degree granting institution must be accredited from one of the following institutions:
 - National Assessment and Accreditation Council (NAAC)
 - National Board of Accreditation (NBA)
 - All India Council for Technical Education (AICTE)
- 3. GPA Minimum must be equivalent to a U.S. 3.00 on a 4.00 scale.
- 4. Minimum score of 400 on the GMAT or Minimum score of 440 on GRE.
- 5. Must have a grade of B (3.00) or better in each equivalent course from the following areas: Accounting, Economics, Management, and Statistics.
- Minimum TOEFL score of 550 paper based (or 79-80 computer based), or IELTS scores (6.5 or higher).

Courses before Admission

Students intending to apply for admission to the MBA program are not allowed to enroll in MBA Core or Elective courses prior to official admission into the program.

Transfer Credit

Transfer credit for prior graduate coursework completed at another accredited college or university will be considered at the time of MBA admission based on course descriptions and documentation submitted with the student's application. Courses accepted in transfer must meet the academic criteria established by Framingham State University. A maximum of two (2) graduate courses may be accepted in transfer and applied toward the MBA degree program.

F-1 Student VISA Status:

Students admitted into a graduate program as on an F-1 Student Visa are required to enroll full-time during the fall and spring semesters. Students in the M.B.A program are encouraged to also enroll full-time during the summer terms if the intent is to complete the program in 16 continuous months.

Time Limits for Program Completion

All degree requirements must be met within eight (8) years from the completion date of the first MBA Core or Elective course.

Program Requirements

Each Framingham State University course is offered for one (1) course-credit, which is equivalent to four (4) semester hours. The Management concentration consists of 12 courses (or 48 semester hours), consisting of twelve (12) Core courses. **Prior to enrolling in Core courses, students are required to fulfill four (4) undergraduate prerequisite course requirements.** All course prerequisites are to be observed. *Note: undergraduate prerequisites courses may be fulfilled based on previous college course work.*

Students must demonstrate proficiency in the following five (5) areas: financial accounting, managerial accounting, economics, statistics and the study of leadership, teamwork and the organization. The 600-level undergraduate prerequisite courses meet proficiency requirements for the program and do not count toward MBA graduate credit.

Proficiency may be demonstrated in one of the following ways:

- Appropriate undergraduate or graduate coursework completed with a grade of B (3.00) or better earned no more than five (5) years prior to the date of application to the MBA program. The Admissions Committee will evaluate each applicant's academic record to determine whether undergraduate prerequisite requirements have been met.
- Students without appropriate prior academic coursework may demonstrate proficiency by taking a College-Level Examination Program (CLEP) test in an appropriate subject area, or may make a written request for a waiver.
- Successful completion of the appropriate MBA prerequisite undergraduate course(s) <u>prior</u> to enrolling in MBA core courses. NOTE: Prerequisite undergraduate courses may be fulfilled based on previous college course work.

Prerequisite Undergraduate Course Requirements (4):

ACCT 653	Financial Statement Reporting and Analysis
ECON 610	Economic Analysis
MGMT 600	Foundations of Business
QUAN 676	Statistical Analysis for Managers

Management Concentration:

Core Requirements (12):

BUIS 933

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ECON 923	The Economics of Organizational Design
ENTR 920	Intrapreneurship and Entrepreneurship
FINA 929	Financial Management
MGMT 911	Organization Behavior and Theory
MGMT 931	Quantitative Methods for Business and Operations
MGMT 940	Business Ethics and Legal Environment
MGMT 968	Managing in a Global Environment
MGMT 971	Communication and Negotiation
MGMT 978	Leadership and Change
MRKT 917	Strategic Marketing

Enterprise Information Technology

Capstone:

MGMT 989 Strategic Management

NOTE: Registration for MGMT 989 Strategic Management requires the prior written permission of the Dean of Graduate Studies. Students will not be permitted to fulfill this requirement with a course transferred from another institution.

COURSE DESCRIPTIONS

BUIS 933 Enterprise Information Technology

An examination of the management and use of information technology (IT) in a business organization. The course explores topics including evaluating technology solutions, understanding business networks, data and network security, the strategic and tactical role of IT in business, managing IT infrastructure and operations, IT planning and architecture, data and information management, and intelligent systems.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

ECON 923 The Economics of Organizational Design

An examination of the optimal means of coordinating relationships between buyer and seller; between employer and employee; and between the firm and lenders of capital; and providers of intermediate product. The three principal forms of organization, the price system, relational contracts, and ownership are examined and contrasted. Study focuses on the theory of transaction cost economics and rudimentary game theory. Topics include the principal-agent problem, the make or buy decision, adverse selection, corporate culture, and the tension between self-interest and cooperation.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

ENTR 920 Intrapreneurship and Entrepreneurship

Designed to emphasize intrapreneurial and entrepreneurial approaches to starting new ventures as a new business or within an existing organization. Students explore entrepreneurship and innovation-related topics, develop viable business venture concepts and examine the details of developing and running a new business venture. Students evaluate innovative ideas, conduct market analysis and feasibility and select the appropriate business structure. Drivers of success and failure, funding sources, and the legal and regulatory environment are discussed.

Prerequisite: All MBA undergraduate prerequisite courses or the equivalent.

FINA 929 Financial Management

An introduction to the two fundamental financial concepts - the investment decision and the financing decision, and their possible interactions. This includes the type of assets a firm acquires, the reason(s) for acquisition, and the sources and costs of financing these assets. Assets, liabilities and capital, both short and long-term, are described using accounting terminology and evaluated using mathematical analysis.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

MGMT 911 Organization Behavior and Theory

An examination of the relationships between individuals, groups, and the organization as it relates to organization strategic performance. Participants focus on theoretical, empirical, and practical applications or organization research. Topics include motivation, group dynamics, team management, organizational injustice, decision-making, leadership, diversity and interpersonal relations.

MGMT 931 Quantitative Methods for Business and Operations

A study of quantitative methods used in business decision making. Methods of optimization modeling, such as linear and integer programming, Decision Theory, Queuing Theory and others are covered. Techniques for optimizing many critical business strategy and operations management decisions, such as production capacity, distribution network design, Input/output analysis, bottleneck and capacity analysis, economies of scale in material handling and distribution, Economic Order Quantity (EOQ), Materials Resource Planning (MRP), reorder point computations, distribution and logistics management, and production and workforce scheduling are included.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

MGMT 940 Business Ethics and Legal Environment

A discussion of the dynamic ethical, legal, management, economic and non-economic, and regulatory environments in which firms compete domestically and internationally. This course applies ethical models of decision making to business decisions and compares and contrasts the impact of these decisions on relative stakeholders and firm competitiveness.

Prerequisite: All MBA undergraduate prerequisite courses or the equivalent.

MGMT 968 Managing in a Global Environment

An introduction to the contemporary world of international business through an examination of the social, cultural, economic, ecological, and commercial aspects that impact global operations. Emphasis is both on the thorough understanding of the effect that international business has on the different functional aspects of the enterprise as well as the manner in which firms organize, operate, and formulate strategies in order to maximize their chances of successful operations. The goal of the course is to acquaint the student with conceptual and analytical tools necessary for the formulation of knowledge concerning international business practices, strategy, and positioning.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

MGMT 971 Communication and Negotiation

A study of effective business communication and negotiation skills. Students examine and apply effective written, verbal and interpersonal communication skills in the context of the business setting. Students learn to plan, craft and complete brief messages, full reports, proposals, and online and oral presentations. Students learn the importance of framing dynamics and how to prepare to negotiate by exploring major concepts and theories of bargaining. Students apply effective communication and negotiation skills covered in the course to practical problems traditionally faced by managers in today's complex business environment.

Prerequisites: All MBA undergraduate prerequisite courses or the equivalent.

MGMT 978 Leadership and Change

An in-depth study into the leadership and management skills that change agents use on a regular basis as they implement organizational change. The class provides skill development of both managerial and interpersonal skill elements crucial to the success of change implementations. The leader as a visionary is critical to success in any organization, and a key attribute for any organizational leader. This course examines and links leadership theories and organizational change theories. Leadership models are examined as well as all those related to organizational change.

MGMT 989 Strategic Management

Focused on observing, analyzing and linking an organization and its environment by providing the tools needed to analyze its present position in the global marketplace and design its future. Organizational action plans for competing successfully and operating profitably are reviewed. Selection of strategic options with the ultimate goal of moving the organization forward successfully by crafting and executing strategy in order to achieve a competitive advantage is analyzed. Evaluation of present conditions, industry segment, organization vision, and ultimately the construction and implementation of strategies appropriate to lead to competitive advantage are examined. Using real business cases, reviewing current organization's strategies, sharing historical events and assessing rigorous theories and concepts of strategic management, students learn to assimilate and utilize knowledge to become a manager whose strategic actions can make a company thrive. A combination of teaching techniques and supporting tools are employed throughout the duration of the course.

Prerequisites: May be taken concurrently with MGMT 971 Communication and Negotiation and/or MGMT 978 Leadership and Change. Completion of all other MBA courses is required. Permission of the Dean of Graduate Studies is required.

MRKT 917 Strategic Marketing

A focus on critically scanning and analyzing the external environment, defining strategic marketing decisions, developing and applying models to evaluate the alternatives and formulating recommended courses of action.

Master of Education concentration in Art

Program Coordinator:Brian BishopProgram Advisor:Barbara Milot

The Master of Education (M.Ed.) with a concentration in Art is designed for students who are interested in furthering their knowledge of art at the graduate level, without regard to employment as a teacher, as well as for those who wish to meet state or district requirements for advanced study by teachers. The program leads to the Professional License (PreK-8 or 5-12) and presumes substantial work in art which is usually obtained as part of the undergraduate degree.

Admission Requirements

Applications are accepted on a rolling basis for the fall and spring semesters. Completed applications should be on file by July 1st for fall and by December 1st for spring. Applications received after these dates cannot be guaranteed timely matriculation. The Admissions Committee will begin review of an application only upon receipt of official copies of all required documents.

Applicants must:

- Have earned a baccalaureate degree from a regionally accredited college or university and submit an official transcript from each college or university attended as an undergraduate or graduate student. Required undergraduate preparation: at least 45 semester hours in liberal arts to include 36 semester hours in studio art and 9 semester hours in art history;
- 2. Have an overall undergraduate grade point average of at least 3.00 on a scale of 4.00 in a degree program acceptable to the admissions committee;
- 3. Submit a copy of their Massachusetts Initial Teaching License in Art;
- Must provide two letters of recommendation from professors, supervisors, and/or colleagues, submitted on the Framingham State University Letter of Recommendation form and sent directly to the University's Graduate Admissions office by the recommender;
- Must submit a typed, 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities, and career plans;
- 6. Must submit ten (10) to fifteen (15) digital images of the applicant's art work. This may include multiple slides to show detail.
- Must have an interview and portfolio review with the Program Coordinator and/or Program Advisor.

Notes: The above requirements are accurate to date. However, the University reserves the right to change requirements in the future, and will notify applicants should any changes be made. Applications remaining incomplete for over one year will be discarded. Refer to the appropriate catalog for program requirements for prior years.

Program Requirements

The program requires ten (10) courses, which include three (3) in education and seven (7) in art (studio art and art history). An oral comprehensive examination is required as the student's culminating experience. A professional portfolio, completed as part of the degree program, is presented during comprehensive examination.

Education Core Courses (3)

EDUC 991 Philosophy of Education and Teaching Practice
 EDUC 998 Language Development and Communication
 EDUC 999 Research and Evaluation (recommended after completion of three Content/Concentration courses)

Concentration Courses (7)

ARTS 820 Life Drawing

ARTS 995 Graduate Seminar in Art Education

Electives:

At least five (5) additional graduate level art courses.

These courses must be approved, in writing, by the student's advisor. Specific studio and art history courses should be chosen to complement the student's undergraduate art program and should address the following subject areas:

Three (3) Studio Art courses at the graduate level

Two (2) Art History courses at the graduate level

ART HISTORY COURSE DESCRIPTIONS

ARTH 850 Study Tour: Art and Architecture

A studio art or art history course taught through an extensive field trip or series of field trips, in addition to more traditional methods of teaching. Students gain direct experience of art and architecture in its historic, social, and geographic contexts. The topics/locations may vary from year to year and are announced in the course schedule bulletin. This course, in a different topic/location, may be repeated for credit.

ARTH 873 Twentieth-Century Art

A survey of major artists and art movements from Post-Impressionism through Post-Modernism (1880's-1980's). Issues and events of the twentieth century, such as rapidly expanding technology, world wars, utopian and civil rights movements, feminism, and multiculturalism are explored in relation to avant-garde art movements.

ARTH 876 Art of the Baroque Period

A survey of the arts of the 17th and 18th centuries, which explore the achievements of Bernini, Caravaggio, Rubens, Rembrandt, Vermeer, and Velazquez as well as other gifted but lesser-known figures. The course relates the artistic contributions of the period to developments in political, religious, and intellectual history and considers the ways that images were produced, collected, and displayed.

ARTH 878 American Art

A study of the art and architecture of the United States from Colonial Times through the early 20th Century. Attention is given to Native American art and the work of folk artists/craftspersons as well as that of artists nurtured in European traditions. Readings and class discussion focus on the arts as a unique expression of the American experience in relationship to history, politics, ideology, and social and technological change.

ARTH 880 From Romanticism Through Impressionism

A survey of nineteenth century European art from the 1780's to the 1880's, examining the visual arts within the context of nineteenth century life and culture. This course explores the major artistic movements of this period and the innovations of such outstanding figures as Goya, David, Delacroix, Manet, Monet and Van Gogh as well as their relationship to contemporary political and social developments. Readings cover such topics as myth of the modern artist, art and political revolution, the representation of modern life, and the ways in which gender, sexuality, class and modernity interrelate.

ARTH 882 Latin American Art

A study of Pre-Hispanic, Colonial and Modern Latin American visual culture. Emphasis is placed on social context and politics of art, including issues of race, gender, and social class. The first half of the course surveys the art of Pre-Hispanic cultures; the second half studies how the art of Colonial and Modern Latin America has engaged with indigenous heritage. Scholarly readings, essay assignments, and a research project explore the methodologies and concerns of art history and art criticism. Note: Students cannot receive credit for both this course and ARTH 889 Special Topics in Art History: Latin American Art

ARTH 883 Contemporary Art History

A study of artistic developments, primarily in Europe and the United States, in the contemporary era (1945 to the present). Consideration is given to the diversity of artistic expressions in this period within their cultural, theoretical, and political contexts. Particular attention is given to the impact on art of such late 20th-century cultural phenomena as feminism, identity politics, multiculturalism, environmental awareness, the AIDS epidemic, the explosion of the media and technology, and to the ways in which these phenomena have helped to spawn new artistic media, e.g. earth art, installation, video, performance, and Web-based art.

Prerequisite: ARTH 873 Modern Art History or permission of the instructor.

ARTH 884 The Art of Asia

A contextual study of the arts of India, Japan, and Southeast Asia, spanning the ancient to the post-modern worlds. The course explores major movements and schools of art such as Buddhist sculpture, Chinese landscape painting and Japanese prints. Readings and discussions focus on the interrelationship among art and religion; identity and political authority. The course includes study of Western influences in Asia, and of the idea of the "Orient" in Western Culture.

ARTH 885 Seminar: Problems in Contemporary Art

An intensive investigation into aspects of topics of twentieth-century art. The course is intended to give the students the opportunity for scholarly research and presentation of seminar papers.

Prerequisites: History of Art II and ARTH 873 Twentieth-Century Art or permission of the instructor.

ARTH 889 Special Topics

A study of a special period or topic in art history. Specific topics are announced in the course schedule bulletin. The course explores the art in terms of its formal elements, iconography, and social context through extensive readings, lectures, writing and discussion. Students write a research paper. This course, in a different topic, may be repeated for credit.

ARTH 990 Directed Study in Art History

Course description varies with experience. Advisor approval required.

STUDIO ART COURSE DESCRIPTIONS

ARTS 815 Comix and Graphic Novels

A study of the methods and techniques of sequential narration within the contemporary art forms of comix and graphic novels. The focus of this course is on the development of a personal vision in the crafting of illustrated stories. Students are exposed to a variety of media possibilities while exploring the dynamics of pacing, framing, and the interaction of text and image.

Prerequisite: Drawing I.

ARTS 820 Life Drawing

An intensive study of the human figure and anatomy for artists. The course combines traditional life drawing from observation with exercises and assignments that emphasize the expressive interpretation of the human figure.

ARTS 822 Painting Studio

An exploration of painting principles and techniques which is designed to strengthen the individual students' awareness of the history of the craft of painting while exposing the student to contemporary styles and ideas about visual art production. Students work toward developing their own styles and expressive objectives.

Prerequisite: ARTS 820 Life Drawing.

ARTS 828 Intaglio

A study of intaglio printmaking techniques including drypoint, engraving, mezzotint, etching, aquatint, sugarlift, open bite, spit bite, and single and multiplate color printing. Students explore the creative possibilities of these techniques and develop a portfolio of color and black and white intaglio prints.

ARTS 830 Digital Art

Designed for art and non-art students who are interested in designing artwork on the computer. Students learn two main programs, Painter and Photoshop, using the Mac computer for painting, drawing, watercolor and image collage on paper. Students are also exposed to mixed media and simple computer animation (formerly Computer Applications for Artists).

Prerequisite: One undergraduate drawing course.

ARTS 834 Children's Book Illustration

An introduction to the art of children's book illustration. Students work from existing, revised, or self-authored texts in the creation of narrative imagery. This course leads students through the artistic process, from initial character development and concept sketches, to dummy books, finished illustrations, and the placement of image and text. In classroom exercises, students are introduced to various wet and dry media including acrylic, colored pencil, and collage. Additional topics include the development of individual voice for picture book illustration and illustrating for a particular age group.

ARTS 841 Ceramics

An introduction to basic techniques in both hand building and wheel-working. Students begin to explore ways to make their work more personal by combining technical skills with form and concept. Emphasis is placed upon the student's ability to conceive three-dimensional forms and execute them skillfully in space. Various methods of glazing and firing are addressed as they relate to student work on specific projects.

ARTS 844 Wheel working

An intensive introduction to working on the potter's wheel. Students learn the basic techniques of centering, opening and raising the walls of pots. Once familiar with these techniques, students learn how to create such functional objects as plates, bowls, mugs, teapots, and other lidded vessels. The wheel is also considered as a tool for making more sculptural works. While being exposed to a full range of historical and contemporary pottery, students develop a professional sense of material, form and design along with methods of glazing and firing.

Prerequisite: One course in ceramics, sculpture, or three-dimensional design.

ARTS 850 Study Tour: Art and Architecture

A studio art or art history course taught through an extensive field trip or series of field trips, in addition to more traditional methods of teaching. Students gain direct experience of art and architecture in its historic, social, and geographic contexts. The topics/locations may vary from year to year and are announced in the course schedule bulletin. This course, in a different topic/location, may be repeated for credit.

ARTS 851 Watercolor

A course that focuses on strengthening the students' awareness of the history and techniques of watercolor and gouache while exposing students to contemporary styles and ideas about these media and aiding in the development of the students' conceptual, technical and observational skills. Students concentrate on the essential elements of these media and their materials, methods, and craft.

Prerequisites: ARTS 820 Life Drawing and ARTS 822 Painting Studio **or** permission of the instructor.

ARTS 856 Illustration

An introduction to the practical application of drawing and painting in communication design and narrative. Students employ a variety of materials used in magazine, book and product illustrations, including pen and ink, watercolor and dry drawing media. **Prerequisite**: Permission of the instructor.

ARTS 860 Lithography

A study of stone and plate lithography techniques including pencil, crayon, lithography tusche, copier transfers, gum stop-outs, and two-color and three-color printing. Students explore the creative possibilities of the medium by developing a portfolio of color and black and white lithographs. Emphasis is on the study of line, tone, shade texture, and color. Proper etching procedures and printing methods are developed throughout the course.

ARTS 862 Printmaking

An exploration of various printmaking techniques, including screen printing, monotype, relief printing, drypoint, etching, and collograph. Emphasis is on understanding the social and artistic concerns of producing imagery in multiples.

ARTS 863 Woodcut

A study of woodblock relief printing techniques including black and white, reduction, multi-block, jigsaw, monotype/monoprint, and mixed media manipulations. Students explore the creative possibilities of medium by developing a portfolio of color and black and white woodcuts.

Prerequisite: Drawing I.

ARTS 865 Special Topics in Studio Art

This course will expose students to a broad range of artistic sensibilities. Five to six professional artists, representing a wide range of sensibilities, will engage students in a series of workshops. Each workshop will reflect the unique conceptual and creative processes of the artists. Following the workshops, students will be challenged to solve problems posed by the individual artists. This course is for advanced art majors.

Prerequisites: Four studio art classes and two art history courses.

ARTS 879 Topics in Advanced Printmaking

An exploration of a specific genre or topic in the printmaking/book arts discipline. The course is designed to enhance the creative, conceptual, and professional development of printmaking majors. Students work toward developing a body of work with emphasis on content and technique. Regular critique helps students develop the critical language necessary to speak about their work on a variety of levels. Contemporary issues in printmaking are addressed, particularly as they relate to students' work. This course, on a different topic, may be repeated for credit.

ARTS 920 Advanced Drawing Studio

An advanced drawing workshop in which students are encouraged to develop themes and explore stylistic possibilities. Students work with still life, the figure and abstraction in pursuing a more individualistic connection with drawing. A variety of media and methods are utilized.

Prerequisite: ARTS 820 Life Drawing or permission of the instructor.

ARTS 930 Advanced Painting Studio

An advanced painting workshop in which students are encouraged to develop themes and explore stylistic possibilities. Students address technical and conceptual issues in painting through work with still life, figure, and abstract images. Throughout the course students are expected to pursue an individualistic connection with painting.

Prerequisites: ARTS 820 Life Drawing and ARTS 822 Painting Studio or permission of the instructor.

ARTS 990 Directed Study in Art

Course description varies with experience. Advisor approval required.

ARTS 995 Graduate Seminar in Art

An advanced studio seminar for students in the Master of Education with a concentration in Art. As artists and teachers, students in this course continue to develop the body of work begun in the three studio art courses taken for this program. Seminar meetings incorporate traditional critiques and non-traditional approaches to examining works of art. Students are responsible for several short papers including an artist's statement, a narrative of the student's progress toward studio goals, and a reflective paper on the relationship between the student's studio experiences and his/her teaching practice. In addition, students prepare a final oral presentation on a curriculum initiative developed out of the seminar experiences. **Prerequisites:** Three (3) of the four (4) required studio art courses in the M.Ed. Art program. Open to students in M.Ed. with a concentration in Art only.

EDUCATION COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

Master of Education concentration in Curriculum and Instructional Technology

Program Coordinator: Dr. Folashade Solomon

Program Advisor: Sandra Shaw

The Master of Education (M.Ed.) with a concentration in Curriculum and Instructional Technology prepares the candidate to obtain a Massachusetts Initial License as an Instructional Technology Teacher (all levels). Students are given the opportunity to gain vital skills in applying and expanding the use of educational technology in the curriculum. Instruction is computer-based and all courses are offered online.

For candidates who are seeking a first Initial License, a 300-hour practicum experience must also be completed after the successful completion of all degree requirements. For candidates who are seeking an additional Initial License, a 150-hour practicum experience must also be completed after the successful completion of all degree requirements.

Admission Requirements

- The applicant must have earned a baccalaureate degree from a regionally accredited college or university.
- The applicant must have a minimum undergraduate quality point average of 2.80 on a 4.00 scale.
- 3. The applicant must have a formal access to a classroom environment.
- The applicant must submit satisfactory scores on the Miller Analogies Test or the Graduate Record Examination General Test.

Program Requirements

The degree requires successful completion of ten (10) courses, which include three (3) core courses, five (5) concentration courses, and two (2) electives. Students must also successfully complete an online written comprehensive examination and electronic portfolio. The professional portfolio, based upon the Massachusetts Department of Elementary and Secondary Education Professional Standards for Licensure, must be webbased and submitted to the advisor of the Curriculum and Instructional Technology program at least one week prior to the online written comprehensive exam. The examination is taken in the last semester of study.

Education Core Courses (3)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Development and Communication
EDUC 999	Research and Evaluation (recommended after
	completion of three Content or Concentration courses)

Concentration Courses (6)

EDUC 940	Adult Development and Learning
INST 941	Internet for 21st Century Teaching and Learning
INST 943	Impact of Technology on Education

Curriculum and Instructional Technology

INST 951 Mathematics Instruction with Technology
INST 954 Technology Infrastructure Management
INST 959 Technology, and Professional Development

Electives (1)

One (1) elective graduate content course approved by the program advisor. Choose from the following academic disciplines: art, biology, earth science, English, foreign language, geography, history, or mathematics.

Practicum: required for students seeking an Initial Instructional Technology Teacher License (all levels):

INST 939 Practicum in Instructional Technology

Prior to applying for the practicum, a passing score for the Communication and Literacy Skills Test of the Massachusetts Tests for Educator Licensure (MTEL) must be submitted to the Framingham State University Office of Graduate Studies. The practicum is taken only after successful completion of all degree requirements in the Master of Education with a concentration in Curriculum and Instructional Technology program. Permission of the program advisor at least three (3) months prior to the practicum is required. Students secure their own practicum site, which must be approved by the University.

For students seeking a first Initial License, a field-based 300-hour practicum equivalent is required. Students must complete 150 hours at each of any two of the following levels: PreK-6, 5-8, 8-12. Students must complete 150 hours-hour practicum or practicum equivalent in the role of the license in an appropriate classroom, determined by the program advisor, is required. The student is guided by the cooperating school system and his/her college supervisor.

COURSE DESCRIPTIONS

EDUC 940 Adult Development and Learning

Examines theories of adult development from adulthood to old age. Explores the cognitive, moral, physical, social, and psychological development of the adult and those characteristics and patterns that are unique to adult learning and growth. A cross-cultural approach is emphasized. Current research and revisionists theories are reviewed..

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

INST 941 Internet for 21st Century Teaching and Learning

Designed for educators to accomplish the following: conduct effective searches by employing defined strategies using search directories, search engines, virtual libraries, specialized and proprietary databases and library catalogs; evaluate educational websites detailing its veracity, appropriateness, and educational value; examine important issues related to the classroom including academic integrity, Internet safety, and related student behavior to provide a safe, secure and excellent educators; explore online tools to support a web-enhanced and/or online classrooms; and create and publish a web-based inquiry-oriented classroom project. Participants develop and execute lesson plans that merge current curriculum standards and technology. Students begin development of an electronic portfolio to document their field-based experience.

INST 943 Impact of Technology on Education

A critical examination of the impact of using technology resources in the classroom including adaptive and assistive technologies and online tools. Students study critical thinking within a technological environment and incorporate them into curriculum. Students create model lessons that are technology-rich and project based and include outstanding web resources. These lessons integrate graphic organizers, newsletters, and presentations. Students examine the direction of federal, state and district technology plans, learning styles and research proven instructional strategies that use technology and integrate into lessons. Students continue the development of electronic portfolio to document their field-based experiences.

Prerequisites: INST 941 Internet for 21st Century Teaching and Learning

INST 951 Mathematics Instruction with Technology

A course that identifies the mathematical content of the K-12 school curriculum as defined by the Massachusetts Curriculum Framework. Students learn how to use technology to enhance the teaching of mathematics. The Internet is utilized to conduct research for mathematical knowledge and technological pedagogical applications. NOTE: Students who completed 84.952 Technology for Mathematics and Science Instruction cannot enroll in INST 951 Mathematics Instruction with Technology.

Prerequisites: INST 941 Internet for Educators and INST 943 Impact of Technology on Education, or permission of the instructor.

INST 954 Technology Infrastructure Management

Designed to provide teachers with the strategies for maintaining and troubleshooting their computers by using a series of hands-on activities. Topics include computer hardware and peripherals, operating systems, system administration tools, networking, network management, and troubleshooting. A series of discussions are held about the issues facing technology leaders including computer donations, Internet safety, spyware, asset management, virus protection, and total cost of ownership. Through extensive discussion and project-based assignments, differentiated experiences are provided to meet the diverse needs of the students in this class. Students continue the development of an electronic portfolio to document their field-based experiences.

Prerequisites: INST 943 Impact of Technology on Education.

INST 959 Technology and Professional Development

Designed as a capstone course about designing and implementing change. Students explore the process of change as it relates to technology integration and other improvements in a classroom, school, or district. Participants consider the professional standards that address technology integration and professional development, as well as the ethical, legal and human dimensions of such a change. They explore the roles of supervisors, school councils and administrators within the context of strategic educational planning. They also explore leadership and supervisory approaches to the redesign of instruction through emerging and online technologies, even within the context of limited financial resources and administrative preoccupation with other matters. Students continue the development of an electronic portfolio to document their field-based experiences.

Prerequisites: INST 951 Mathematics Instruction with Technology, INST 954 Technology Infrastructure Management and permission of the program advisor.

CONTENT ELECTIVES

A listing of elective courses can be found in the Content Elective section of this catalog. Please refer to the program requirements to determine appropriate content subjects for this concentration.

Master of Education concentration in Early Childhood Education

Program Coordinator: Valerie Hytholt
Program Advisor: Valerie Hytholt

The Master of Education (M.Ed.) with a concentration in Early Childhood Education is a Massachusetts Department of Elementary and Secondary Education approved program for advancing the Early Childhood: Teacher of Students With and Without Disabilities (PreK-2) Initial License to the Professional level. The program also provides advanced studies appropriate for teachers who hold Early Education and Care (EEC)-formerly Office of Child Care Service (OCCS) - certification as Lead Teacher, Director I and Director II.

Admission Requirements

- 1. The applicant must have earned a baccalaureate degree from a regionally accredited college or university.
- 2. The applicant must hold a Massachusetts Department of Elementary and Secondary Education license in Early Childhood Education at the Initial level (or above) or hold Massachusetts Department of Early Education and Care (formerly OCCS) certification as Lead Teacher, Director I and/or Director II and have one year's teaching experience in early childhood education.
- The applicant must have a minimum undergraduate quality point average of 2.80 on a 4.00 scale.
- 4. The applicant must submit satisfactory scores on the Graduate Record Examination General Test.

Program Requirements

The program requires successful completion of ten (10) courses, which include three (3) core courses, three (3) required courses, and four (4) elective courses. A professional portfolio is completed as part of the degree program. An oral comprehensive examination is required of all students as the culminating experience.

Program Prerequisite: Upper level undergraduate or graduate level/literacy course within the past 5 years or LTRC 907 Literacy Instruction.

Education Core Courses (3)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Developments and Communication
EDUC 999	Research and Evaluation (recommended after
	completion of three Content/Concentration courses)

Concentration Courses (3)

CPSY 964	Advanced Principles of Learning and Development
LTRC 901	Integrating the Language Arts
SPED 962	Developmental Patterns of Children with Moderate Disabilities

Elective Courses (4)

Students select four (4) elective courses to complete their program of study. To satisfy the elective requirements, students must meet the requirements listed in Group A and Group B.

Group A: Select two (2) elective courses from the following:

ECED 911	Play and Observation
ECED 912	Advanced Early Childhood Curriculum
SPED 956	Curriculum Development and Modification
SPED 963	Behavior and Classroom Management

Group B: Select two (2) elective courses from the following:

- One additional course from Group A (above).
- ENGL 930 Workshop in Children's Literature.
- One or two graduate-level courses in mathematics, English, literacy, history, economics, geography, biology, chemistry, physics and earth sciences, and/or art. Consultation with the advisory is strongly recommended when selecting content area courses from this list.
- One or two graduate-level courses in other areas appropriate to the student's professional goals (e.g., special education, English as a Second Language (ESL), business, and supervision). Written advisor approval is required for courses selected for this option.

COURSE DESCRIPTIONS

CPSY 964 Advanced Principles of Learning and Development

An examination of developmental psychology in historical perspective and of the assumptions and values of developmental research strategies. Major developmental theories are reviewed with an emphasis on those of Piaget and Erikson, thus integrating the contributions of dialectic (systems) perspective. A major goal of the course is to identify life-span developmental issues such as the nature of developmental change and its relationships to familial and societal variables. A final goal is the application of knowledge arising from developmental research and theory to counseling practice (e.g., human services, social policies). Class members are assisted in applying developmental concepts and research data to phenomena occurring within a particular age group (e.g. infancy, middle childhood, young adulthood), or to a psychological process (e.g. memory, learning, separation, friendship), which continues or recurs throughout the life span.

Prerequisites: A developmental psychology course (e.g. child, adolescent psychology, adulthood, and aging or a life span development course). Note: Also open to students matriculated in the M.Ed. concentration in Early Childhood Education program.

ECED 908 Communication Development - Birth to Age 8

An exploration of brain development and current research, communication milestones, teaching strategies, interventions and assessments for each stage of oral language development from infancy through third grade. Educators gain a well-rounded understanding of the underpinnings of language development as an essential foundation for building future learning from birth to age eight.

ECED 911 Play and Observation

Examines the value of play as part of the learning process; of play theories and research and the relationship of play to the emotional, social, and cognitive development of young children; and of play to the subjects of early childhood curriculum. Therapeutic uses of play and the design of learning environments which promote play will be included. Students acquire skills in observing and analyzing children in classroom and non-classroom settings.

ECED 912 Advanced Early Childhood Curriculum

Deals with the planning, implementing, and evaluating of developmentally appropriate integrated learning experiences for young children in the subject matter of early childhood education (early literacy, children's literature, early mathematics, science and social studies, health and nutrition, movement and the arts); creating, evaluating and selecting instructional materials; and designing learning environments which meet the needs of the children with and without special needs. Evaluates current research and early childhood curriculum models.

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

ENGL 930 Workshop in Children's Literature

An advanced workshop that explores the relationship between children's literature and the curriculum of grades Pre-K through 12. Students study various genres in children's and young adult literature, submitting lesson plans and related activities to the class for critique. Special attention is paid to children's book authors and illustrators recommended by the Massachusetts English Language Arts Curriculum Framework. NOTE: This course is designed for teachers interested in enhancing their classes. Those interested in the literary analysis of Children's Literature are advised to enroll in ENGL 875 History of Children's Literature, ENGL 870 Current Trends in Children's Literature, ENGL 942 Children's Literature: Critical Approaches, and ENGL 946 Young Adult Literature: Critical Approaches. Students who have taken ENGL 887 Workshop in Children's Literature may not receive credit for this course.

LTRC 901 Integrating the Language Arts

Addresses research and practice relative to the fundamental principles of teaching the language arts using an integrated approach. Using a literature-based model, emphasis will be placed on the writing process and the reading-writing connection. Learning strategies, instructional methods and materials, and evaluation techniques will be integrated throughout the course. Students will create a portfolio demonstrating their competence as

Master of Education concentration in Early Childhood Education

teachers of integrated language arts. Students will be required to spend a minimum of four (4) hours per week for 12 weeks in a pre-practicum field experience. The preferred field site is an elementary or middles school classroom where the language arts are taught. Arrangements for the field experience are the student's responsibility.

Prerequisite: An introductory course in the teaching of reading or the teaching of language arts.

SPED 956 Curriculum Development and Modification

Utilizes various curriculum design models, such as Universal Design for Learning (UDL) and differentiation to plan instruction and address the needs of students with and without disabilities. Classroom structure and design, cooperative learning, peer tutoring, social skills coaching, alternative and augmentative communication (AAC) approaches, and co-teaching models are explored. Emphasis is placed on collaborative planning and implementation of curriculum using Individualized Educational Programs (IEPs) and Massachusetts Curriculum Frameworks. This course requires a pre-practicum field experience of 25-hours in a public school or other approached educational setting.

Prerequisite: SPED 962 Developmental Patterns of Students with Moderate Disabilities. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 962 Developmental Patterns of Children with Moderate Disabilities

Reviews the developmental sequence from birth through adulthood with emphasis on cognitive, social, emotional, physical and language development and growth, and examines various pervasive and developmental delays and disabilities. Particular emphasis is placed on the study of the categories of disabilities defined in federal and state regulations. Study of cross cultural competence and ways families may view disabilities and special education is included. This course includes a required pre-practicum field-based experience of 25-hours in a public school or other approved educational setting. A portion of the hours should be spent in an inclusive, general education setting.

SPED 963 Behavior and Classroom Management

Designed to familiarize students with positive behavior supports, with emphasis on prevention and intervention strategies. Systematic data collection, objective reporting, and various methods of reinforcement to elicit appropriate behavior are examined and practiced. Many theories are explored with provisions for teachers to select options in order to meet the individual needs of students in a small and large group settings.

Prerequisite: SPED 962 Developmental Patterns of Students with Moderate Disabilities. Open to matriculated graduate students or by permission of the special education program coordinator.

CONTENT ELECTIVES

A listing of elective courses can be found in the Content Elective section of this catalog. Please refer to the program requirements to determine appropriate content subjects for this concentration.

Master of Education concentration in Educational Technology

Program Coordinator: Dr. Folashade Solomon

Program Advisors: Sandra Shaw

The Master of Education (M.Ed.) with a concentration in Educational Technology emphasizes the integration of education technology instruction and training across learning environments. The program is designed for educators working in an instructional capacity: post-secondary instructors, including community college faculty members, and others. This degree program may also be appropriate for Pre-K to grade 12 teachers and other educators who are not interested in Instructional Technology licensure, though the program's emphasis is not on the Pre-K-12 curriculum. The program focuses on instructional design as well as a student learning and assessment within the framework of current and emerging educational technologies. **All courses are offered online.**

Note: This program is not an approved program for education licensure in Massachusetts.

Admission Requirements

- Applicants must have earned a baccalaureate degree from a regionally accredited college or university and must submit an official transcript from each college or university attended as an undergraduate student.
- The applicant must have a minimum undergraduate quality point average of 2.80 on a 4.00 scale.
- The applicant must have a formal access to a classroom, corporate training environment or other learning environment.
- 4. The applicant must have satisfactory scores on the Miller Analogies Test or the Graduate Record Examination (GRE) General Test.

Application Deadline

Applicants are accepted on a rolling basis for the fall and spring semester. Completed application should be on file by July 1st for fall and December 1st for spring. Applications received after this date cannot be guaranteed timely matriculation. The Admissions Committee will begin review of an application only upon receipt of official copies of all required documents.

Program Outcomes:

- Design and deliver online, blended and/or face-to-face professional development programs, training modules, online courses, and other learning experiences that effectively integrate educational technology for instructors/facilitators and students/participants.
- Evaluate current and emerging web-based and other technologies to (a) identify potential uses and applications for teaching, learning, assessment and research; (b) identify and resolve accessibility issues, and (c) examine potential ethical issues and legal concerns.
- Incorporate the principles of adult learning theory, Universal Design of Learning (UDL) and other research-based, proven practices in the design and delivery of technology-infused online, blended and/or face-to-face learning experiences.

Master of Education concentration in Education Technology

Program Requirements

The degree requires successful completion of ten (10) courses, which include three (3) core courses, six (6) concentration courses, and one (1) elective. Successful completion of an online written comprehensive examination and the submission of an electronic portfolio to the program advisor two weeks prior to the comprehensive exam are required. The examination is taken in the last semester of study.

Education Core Courses (3)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Development and Communication
EDUC 999	Research and Evaluation (recommended after
	completion of three Content/Concentration courses)

Concentration Courses (6)

EDUC 927	Advanced Teaching Strategies
EDUC 940	Adult Development and Learning or
	INST 951 Mathematics Instruction with Technology
INST 941	Internet for 21st Century Teaching and Learning
INST 943	Impact of Technology on Education
INST 955	Discipline-Specific Topics in Instructional Technology
INST 968	Introduction to Assistive Technology

Electives Courses (1)

Students select one (1) graduate course as an elective. This course is chosen in consultation with the program advisor.

COURSE DESCRIPTIONS

EDUC 927 Advanced Teaching Strategies

Designed to help educators become more skilled and versatile in their application of teaching strategies, including guided discovery, discussion formats, questioning skills, inquiry training, cooperative groupings, and individualized formats. Students design a comparative study of teaching strategies, including lesson materials and evaluation instruments, to be conducted in a current or future classroom setting, depending on each student's circumstances. The course analyzes research findings, comparative research designs, and the relationship between teaching strategies and learning styles.

EDUC 940 Adult Development and Learning

Examines theories of adult development from adulthood to old age. Explores the cognitive, moral, physical, social and psychological development of the adult and those characteristics and patterns that are unique to adult learning and growth. A cross-cultural approach is emphasized. Current research and revisionists theories are reviewed.

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include: difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

Master of Education concentration in Education Technology

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

INST 941 Internet for 21st Century Teaching and Learning

Designed for educators to accomplish the following: conduct effective searches by employing defined strategies using search directories, search engines, virtual libraries, specialized and proprietary databases and library catalogs; evaluate educational websites detailing its veracity, appropriateness, and educational value; examine important issues related to the classroom including academic integrity, Internet safety, and related student behavior to provide a safe, secure and excellent educators; explore online tools to support a web-enhanced and/or online classrooms; and create and publish a web-based inquiry-oriented classroom project. Participants develop and execute lesson plans that merge current curriculum standards and technology. Students begin development of an electronic portfolio to document their field-based experience.

INST 943 Impact of Technology on Education

A critical examination of the impact of using technology resources in the classroom including adaptive and assistive technologies and online tools. Students study critical thinking within a technological environment and incorporate them into curriculum. Students create model lessons that are technology-rich and project based and include outstanding web resources. These lessons integrate graphic organizers, newsletters, and presentations. Students examine the direction of federal, state and district technology plans, learning styles and research proven instructional strategies that use technology and integrate into lessons. Students continue the development of electronic portfolio to document their field-based experiences.

Prerequisite: INST 941 Internet for 21st Century Teaching and Learning.

INST 951 Mathematics Instruction with Technology

A course that identifies the mathematical content of the K-12 school curriculum as defined by the Massachusetts Curriculum Framework. Students learn how to use technology to enhance the teaching of mathematics. The Internet is utilized to conduct research for mathematical knowledge and technological pedagogical applications. NOTE: Students who completed 84.952 Technology for Mathematics and Science Instruction cannot enroll in INST 951 Mathematics Instruction with Technology.

Prerequisites: INST 943 Impact of Technology on Education.

INST 955 Discipline-Specific Topics in Instructional Technology

Designed as an advanced course in curriculum and instructional technology that enables students to develop in-depth projects pertaining to their own grade level, teaching discipline, or school based priorities. Students develop advanced projects by using a multiplicity of technologies and present their results by way of multimedia formats. Participants develop projects that require direct involvement with students in their own classrooms.

Prerequisites: INST 943 Impact of Technology on Education.

INST 968 Introduction to Assistive Technology

An exploration of the definitions of assistive technology, and investigates the scope of assistive technology services and devices and their applications for use in the home, school, workplace, and community activities. Students examine current research and development in the field. Students study federal and state laws and regulations regarding assistive technology, and identify local funding sources and funding issues. Students develop knowledge of occupational therapy and physical therapy and the role of the therapists in the assistive technology service planning process. Students practice effective communication and collaborative skills; develop skills in working with individuals and families using a client-centered process that fosters self-determination; develop cross-cultural competence to work with clients from diverse cultural backgrounds; and examine ethical and related professional issues.

Master of Education concentration in Elementary Education

Program Coordinator: Dr. Folashade Solomon

Program Advisor: Sandra Shaw

The Master of Education (M.Ed.) with a concentration in Elementary Education prepares teachers who hold a Massachusetts Initial License in elementary education to move to the Professional License. The program prepares students with the content knowledge and strategies appropriate for teaching in elementary classrooms in the 21st century.

Admission Requirements

- 1. The applicant must have earned a baccalaureate degree from a regionally accredited college or university.
- 2. The applicant must have an Initial Teaching License in Elementary Education.
- The applicant must have a minimum undergraduate quality point average of 2.80 on a 4.00 scale.
- The applicant must submit satisfactory scores on the Miller Analogies Test or the Graduate Record Examination General Test.

Program Requirements

The degree requires successful completion of ten (10) courses, which are divided into four (4) core courses, four (4) content courses, and two (2) curriculum specific courses and an oral comprehensive examination. The professional portfolio, based upon the Massachusetts Department of Elementary and Secondary Education Professional Standards for Licensure, must be completed and submitted to the advisory of the Elementary Education program at least one week prior to the oral comprehensive examination. The examination is taken in the last semester of study.

Prerequisite: Upper level undergraduate or graduate level/literacy course within the past 5 years or LTRC 907 Literacy Instruction.

Education Core Courses (4)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Developments and Communication
EDUC 999	Research and Evaluation (recommended after completion of three Content/Concentration courses)

LTRC 901 Integrating the Language Arts

Content Courses (4)

Four (4) elective graduate content courses approved by the program advisor. Choose from the following academic disciplines: art, biology, chemistry, earth science, English, English as a Second Language, foreign language, geography, history, mathematics, physics, or political science.

Curriculum Specific Courses (2) – Choose Two:

EDUC 927	Advanced Teaching Strategies
ENGL 930	Workshop in Children's Literature
INST 941	Internet for 21st Century Teaching and Learning
INST 943	Impact of Technology on Education
SPED 956	Curriculum Development and Modification
SPED 962	Developmental Patterns of Children with Moderate Disabilities

COURSE DESCRIPTIONS

EDUC 927 Advanced Teaching Strategies

Designed to help educators become more skilled and versatile in their application of teaching strategies, including guided discovery, discussion formats, questioning skills, inquiry training, cooperative groupings, and individualized formats. Students design a comparative study of teaching strategies, including lesson materials and evaluation instruments, to be conducted in a current or future classroom setting, depending on each student's circumstances. The course analyzes research findings, comparative research designs, and the relationship between teaching strategies and learning styles.

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include: difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

ENGL 930 Workshop in Children's Literature

An advanced workshop that explores the relationship between children's literature and the curriculum of grades Pre-K through 12. Students study various genres in children's and young adult literature, submitting lesson plans and related activities to the class for critique. Special attention is paid to children's book authors and illustrators recommended by the Massachusetts English Language Arts Curriculum Framework. Note: This course is designed for teachers interested in enhancing their classes. Those interested in the literary analysis of Children's Literature are advised to enroll in ENGL 875 History of Children's Literature, ENGL 870 Current Trends in Children's Literature, ENGL 942 Children's Literature: Critical Approaches, and ENGL 946 Young Adult Literature: Critical Approaches. Students who have taken ENGL 887 Workshop in Children's Literature may not receive credit for this course.

INST 941 Internet for 21st Century Teaching and Learning

Designed for educators to accomplish the following: conduct effective searches by employing defined strategies using search directories, search engines, virtual libraries, specialized and proprietary databases and library catalogs; evaluate educational websites detailing its veracity, appropriateness, and educational value; examine important issues related to the classroom including academic integrity, Internet safety, and related student behavior to provide a safe, secure and excellent educators; explore online tools to support a web-enhanced and/or online classrooms; and create and publish a web-based inquiry-oriented classroom project. Participants develop and execute lesson plans that merge current curriculum standards and technology. Students begin development of an electronic portfolio to document their field-based experience.

INST 943 Impact of Technology on Education

A critical examination of the impact of using technology resources in the classroom including adaptive and assistive technologies and online tools. Students study critical thinking within a technological environment and incorporate them into curriculum. Students create model lessons that are technology-rich and project based and include outstanding web resources. These lessons integrate graphic organizers, newsletters, and presentations. Students examine the direction of federal, state and district technology plans, learning styles and research proven instructional strategies that use technology and integrate into lessons. Students continue the development of electronic portfolio to document their field-based experiences.

Prerequisite: INST 941 Internet for 21st Century Teaching and Learning

LTRC 901 Integrating the Language Arts

Addresses research and practice relative to the fundamental principles of teaching the language arts using an integrated approach. Using a literature-based model, emphasis will be placed on the writing process and the reading-writing connection. Learning strategies, instructional methods and materials, and evaluation techniques will be integrated throughout the course. Students will create a portfolio demonstrating their competence as teachers of integrated language arts. Students will be required to spend a minimum of four hours per week for 12 weeks in a pre-practicum field experience. The preferred field site is an elementary or middle school classroom where the language arts are taught. Arrangements for the field experience are the student's responsibility.

Prerequisite: An introductory course in the teaching of reading or the teaching of language arts.

SPED 956 Curriculum Development and Modification

Utilizes various curriculum design models, such as Universal Design for Learning (UDL) and differentiation to plan instruction and address the needs of students with and without disabilities. Classroom structure and design, cooperative learning, peer tutoring, social skills coaching, alternative and augmentative communication (AAC) approaches, and co-teaching models are explored. Emphasis is placed on collaborative planning and implementation of curriculum using Individualized Educational Programs (IEPs) and Massachusetts Curriculum Frameworks. This course requires a pre-practicum field experience of 25-hours in a public school or other approached educational setting.

Prerequisite: SPED 963 Developmental Patterns of Students with Moderate Disabilities. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 962 Developmental Patterns of Children with Moderate Disabilities

Reviews the developmental sequence from birth through adulthood with emphasis on cognitive, social, emotional, physical and language development and growth, and examines various pervasive and developmental delays and disabilities. Particular emphasis is placed on the study of the categories of disabilities defined in federal and state regulations. Study of cross cultural competence and ways families may view disabilities and special education is included. This course includes a required pre-practicum field-based experience of 25-hours in a public school or other approved educational setting. A portion of the hours should be spent in an inclusive, general education setting.

Master of Education concentration in Elementary Education, General

CONTENT ELECTIVES

A listing of elective courses can be found in the Content Elective section of this catalog. Please refer to the program requirements to determine appropriate content subjects for this concentration.

Master of Education concentration in Literacy and Language

Program Coordinator: Dr. Diane Lowe
Program Advisor: Dr. Diane Lowe

The Master of Education (M.Ed.) with a concentration in Literacy and Language, plus a supervised practicum, enables candidates to meet the requirements for Initial Licensure in Massachusetts as a Specialist Teacher: Reading Licensure and qualifies the recipient to work in the area of reading and language arts with students at all age and grade levels.

The Master of Education with a concentration in Literacy and Language also enables candidates holding an Initial License in Elementary, Early Childhood, English, or Teacher of Students with Moderate Disabilities to meet the requirements for Professional Licensure in Elementary, Early Childhood Education, English, or Teacher of Students with Moderate Disabilities. The additional supervised practicum is not required for candidates seeking Professional License in these three fields.

The licensure program also conforms to the Standards for Reading Professionals as developed by the International Reading Association. These standards were approved by the National Council for Accreditation of Teacher Education (NCATE).

Admission Requirements

- 1. The applicant must have earned a baccalaureate degree earned from a regionally accredited college or university.
- 2. The applicant must have at least an Initial Teaching License.
- The applicant must have an undergraduate quality point average of at least 2.80 on a 4.00 scale.
- 4. The applicant must submit a satisfactory score on the Graduate Record Examination General Test.

Program Requirements

This program requires successful completion of ten (10) courses and an oral comprehensive examination. A professional portfolio, completed as part of the degree program and based upon the Massachusetts Department of Elementary and Secondary Education Professional Standards for Licensure, must be completed and submitted to the advisor of the Literacy and Language program four weeks prior to the oral comprehensive exam. Candidates seeking the Initial Specialist Teacher: Reading License must also complete a supervised practicum.

Education Core Courses (3)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Developments and Communication
EDUC 999	Research and Evaluation (recommended after
	completion of three Content/Concentration courses)*

^{*}Candidates for the Initial Specialist Teacher: Reading License must complete a Literacy and Language research project.

Master of Education concentration in Literacy and Language

Concentration Courses (6)

LTRC 900	Research and Practice in Reading
LTRC 901	Integrating the Language Arts (suggested first course in concentration)
LTRC 902	Reading and Writing in the Content Areas
LTRC 903	Assessment for Learning Styles and Strategies
LTRC 910	Leadership and Consultation in the Language Arts
LTRC 926	Teaching the Writing the Process
Elective Course (1)	
ENGL 930	Workshop in children's Literature

The above 10-course program in Literacy and Language enables candidates holding an Initial License in Elementary, Early Childhood, English, or Teacher of Students with Moderate Disabilities to meet the requirements for Professional Licensure in Elementary Education, Early Childhood Education, English, or Teacher of Students with Moderate Disabilities. The additional supervised practicum (below) is not required for candidates seeking Professional License in these four fields.

Required Practicum for students seeking an Initial Specialist Teacher Reading License

LTRC 952	Practicum in Literacy and Language with Seminar
<u>OR</u>	
LTRC 988	Practicum in Reading Enrichment with Seminar

Per the Massachusetts Department of Elementary and Secondary Education (DESE), candidates seeking an Initial Specialist Teacher Reading License must obtain the Sheltered English Instruction (SEI) endorsement in one of the following ways:

- 1. Complete an undergraduate program that includes an approved Sheltered English Immersion course.
- Complete the DESE approved Sheltered English Immersion course through a school district.
- Complete the DESE approved Framingham State University course, TESL 910 Sheltered English Immersion.
- Complete a DESES approved Sheltered English Immersion course through another licensure program.

COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

ENGL 930 Workshop in Children's Literature

An advanced workshop that explores the relationship between children's literature and the curriculum of grades Pre-K through 12. Students study various genres in children's and young adult literature, submitting lesson plans and related activities to the class for critique. Special attention is paid to children's book authors and illustrators recommended by the Massachusetts English Language Arts Curriculum Framework. Note: This course is designed for teachers interested in enhancing their classes. Those interested in the literary analysis of Children's Literature are advised to enroll in ENGL 875 History of Children's Literature, ENGL 870 Current Trends in Children's Literature, ENGL 942 Children's Literature: Critical Approaches, and ENGL 946 Young Adult Literature: Critical Approaches. Students who have taken 21.887 Workshop in Children's Literature may not receive credit for this course.

LTRC 900 Research and Practice in Reading

Addresses research and practice relative to the fundamental principles of reading instruction including the reading process, the reading workshop, a literate environment, emergent literacy, reading skills and strategies, approaches to the teaching or reading, instructional materials and informal assessment. Students will be required to spend a minimum of four hours per week for 12 weeks in a pre-practicum field experience. The preferred field site is an elementary or middle school classroom where developmental reading is taught. Arrangements for the field experience are the student's responsibility.

Prerequisite: A recent introductory course in the teaching of reading or the teaching of language arts.

LTRC 901 Integrating the Language Arts

Addresses research and practice relative to the fundamental principles of teaching the language arts using an integrated approach. Using a literature-based model, emphasis will be placed on the writing process and the reading-writing connection. Learning strategies, instructional methods and materials, and evaluation techniques will be integrated throughout the course. Students will create a portfolio demonstrating their competence as teachers of integrated language arts. Students will be required to spend a minimum of four hours per week for 12 weeks in a pre-practicum field experience. The preferred field site is an elementary or middle school classroom where the language arts are taught. Arrangements for the field experience are the student's responsibility.

Prerequisite: An introductory course in the teaching of reading or the teaching of language arts.

Master of Education concentration in Literacy and Language

LTRC 902 Reading and Writing in the Content Areas

Addresses the fundamental procedures related to integrating the language arts across the curriculum. Instructional strategies will combine reading process and writing process theory with all content areas. Current research and strategies for working with content area teachers will be integrated throughout the course.

Prerequisites: LTRC 900 Research and Practice in Reading and LTRC 901 Integrating the Language Arts.

LTRC 903 Assessment for Learning Styles and Strategies

Addresses the fundamental principles of assessment, evaluation, diagnosis, and treatment of reading and writing. Topics will include observation techniques, the running record, portfolios, the administration and interpretation of individual and classroom corrective programs, and remediation strategies. Students will be required to spend a minimum of four hours per week for 12 weeks in a pre-practicum field experience. The preferred field site is an elementary or middle school classroom where the language arts are taught. Arrangements for the field experience are the student's responsibility.

Prerequisites: LTRC 900 Research and Practice in Reading and LTRC 901 Integrating the Language Arts.

LTRC 910 Leadership and Consultation in the Language Arts

Addresses the basic responsibilities of the Specialist Teacher in Reading (Initial License). Topics will include organization and supervision of reading and language arts programs; selection of instructional materials; evaluation of classroom instruction; planning and implementing staff development; working with teachers to organize and manage language arts classrooms; and consulting with various groups within the school community. Students will be required to spend a minimum of 75 hours in an approved field experience. On-site responsibilities include working directly with youngsters and conducting a teacher or parent workshop.

Prerequisites: Completion of all other courses except LTRC 952 Practicum in Literacy and Language Seminar. Prior written approval by the advisor is also required.

LTRC 926 Teaching the Writing the Process

Addresses the fundamental principles of teaching the writing process. Using a writing workshop model, topics covered will include journal writing, the writer's notebook, the reading writing connection, the mini-lesson, writing in the content areas, literature and writing, and assessment of writing. Students will create a writers portfolio.

Prerequisite: An introductory course in the teaching of reading or in the teaching of language arts.

LTRC 952 Practicum in Literacy and Language with Seminar (offered in fall and spring only)

Designed for students seeking the Initial Specialist Teacher: Reading License. This course is a field-based 150-hour practicum experience demonstrating mastery of the subject matter knowledge relative to the Specialist Teacher in Reading. Seminar topics include current literacy instruction, theory and practice. The candidate must also meet the Professional Standards for Teachers as described in the Massachusetts Department of Elementary and Secondary Education Regulations for Educator Licensure. Students secure their own placement site, which must be approved by the University.

Prerequisites: Successful completion of all required courses in the Master of Education with a concentration in Literacy and Language; a passing score of the Specialist Teacher: Reading MTEL (08); permission of advisor to Literacy and Language program and Dean, three months prior to Practicum.

Master of Education concentration in Literacy and Language

LTRC 988 Practicum in Reading Enrichment with Seminar (offered in summer only)

Designed for students seeking the Initial Specialist Teacher: Reading License. This course is a practicum experience in which Framingham State University graduate students who have completed the Literacy and Language program serve as dedicated tutors who provide individualized assessment and intensive, research-based reading instruction to small groups of students. In addition to tutoring, students in this course will have the opportunity to act as literacy coaches. A seminar will be held immediately following each tutoring session. The seminar addresses practical application of best practices in literacy instruction, working with struggling readers, instructional planning, and assessment.

Prerequisites: Successful completion of all required courses in the Master of Education with a concentration in Literacy and Language; a passing score of the Specialist Teacher: Reading MTEL (08); permission of advisor to Literacy and Language program and Dean, three months prior to Practicum.

TESL 910 Sheltered English Immersion

An investigation of the structure of language and the factors that influence second language acquisition. This course considers the impact of culture and diversity on the teaching and learning of English Language Learners (ELLs), and provides teachers with instructional strategies necessary to effectively teach and assess ELLs at a variety of English proficiency levels and content areas. Instructional strategies and content area lessons and units related to World-Class Instructional Design and Assessment (WIDA) guidelines are developed and documented in a sample portfolio.

Master of Education concentration in Mathematics

Program Coordinator: Dr. Julie Levandosky
Program Advisor: Dr. Julie Levandosky

The Master of Education (M.Ed.) with a concentration in Mathematics is designed for students who are interested in furthering their knowledge of mathematics at the graduate level, without regard to employment as teachers, as well as those who wish to meet state or district requirements for teacher licensure. The program leads to the Professional License (Grades 5-8 or Grades 8-12).

Admission Requirements

- The applicant must have earned a baccalaureate degree earned from a regionally accredited college or university.
- An overall undergraduate quality point average (QPA) of at least 2.80 on a 4.00 scale or QPA of 2.80 for all courses completed in the last two years of the student's full-time undergraduate program.
- 3. Mathematics preparation comparable to Framingham State University's mathematics major including Calculus I, II, and III, Linear Algebra and Applications, Number Theory, and one (1) computer science course.
- A Massachusetts Initial License in Mathematics. This requirement will be waived for persons who are not using this degree in order to obtain teacher licensure in the State of Massachusetts.
- Submission of scores on the Miller Analogies Test or Graduate Record Examination.

Students whose academic background does not meet the requirements under item 2 above may still qualify for admission. In these cases students would be asked to make up course deficiencies as part of their graduate program, in addition to the core and concentration courses.

Program Requirements

The program requires successful completion of ten (10) courses, which include three (3) core courses, and seven (7) concentration courses. A comprehensive examination is required as the student's culminating experience.

Education Core Courses (3):

EDUC 991 Philosophy of Education and Teaching Practice
 EDUC 998 Language Developments and Communication
 EDUC 999 Research and Evaluation (recommended after completion of three Content/Concentration courses)

Master of Education concentration in Mathematics

Concentration Courses (7):

MATH 901 Foundations of Mathematics

MATH 999 Reading and Research in Higher Mathematics

AND

Five (5) additional courses approved in writing by the student's advisor.

The student is expected to develop competencies in the following areas: analysis, algebra, geometry, discrete mathematics, and probability and statistics.

COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

MATH 807 Intermediate Statistics

A study of regression and correlation analysis, chi square tests and contingency tables, design of experiments, analysis of variance, non-parametric statistics, and introduction to data analysis.

Prerequisite: Introduction to Statistics

MATH 808 Applied Statistical Processing

Practical aspects of data analysis using statistical computer packages such as MINITAB, SPSSX, and BMDP. Multivariate statistical methods including multiple regression, analysis of covariance, factor analysis, multidimensional scaling, discriminant analysis and linear models for cross-classified categorical data are emphasized. Students do individual data analysis projects.

Prerequisite: MATH 807 Intermediate Statistics.

MATH 810 Number Theory

A study of the properties of numbers. Topics include mathematical induction, divisibility, primes, congruencies, the Chinese remainder theorem, primitive roots, quadratic reciprocity, continued fractions, partitions and the history of some classical problems.

Prerequisite: Calculus II.

Master of Education concentration in Mathematics

MATH 811 Problem Solving/Modeling in Mathematics

A study in problem solving with the development of banks of problems appropriate to various grade levels and selected from arithmetic, informal geometry, logic, measurement, number sequences, probability, and statistics, challenging enough to provoke interest, but realistic enough to be successful experiences. Heuristic problem solving techniques, Polya's stages of problem solving, specific strategies, and pedagogical issues are studied.

Prerequisites: Intuitive Geometry and Finite Mathematics.

MATH 817 Introduction to Higher Geometry

A precise, rigorous examination of the axioms and concepts of various geometries. Euclidean, non-Euclidean, and transformational geometries are investigated.

Prerequisite: Calculus I.

MATH 819 Abstract Algebra

A study of the algebraic structures, groups, rings, integral domains, fields, and polynomials. Note: Students may not receive credit for both this course and 43.835 Algebraic Structures I (formerly Modern Algebra).

Prerequisite: MATH 810 Number Theory.

MATH 848 Mathematical Statistics I

Sample spaces, events as subsets of a sample space, probability, axioms, combinatorics applied to probability problems, random variables and their distributions, special distributions, multivariate distributions, central limit theorem, and topics in statistical inference.

Prerequisites: Calculus III and either Finite Mathematics or Linear Algebra and Applications.

MATH 849 Mathematical Statistics II

Estimation, decision theory and hypothesis testing, linear models, regression, analysis of variance, analysis of categorical data, nonparametric inference.

Prerequisite: MATH 848 Mathematical Statistics I.

MATH 870 Seminar in Mathematics

An exploration of an advanced topic in mathematics or computer science. The particular topic is announced at least one semester in advance.

Prerequisite: Permission of instructor.

MATH 878 Real Analysis

Set theory, relations and functions, properties of the real number system, topology of the real line, introduction to metric spaces, limits of sequences and functions, continuous functions, differentiation, the Riemann-Stieltjes integral.

Prerequisite: Calculus III.

MATH 901 Foundations of Mathematics

A course that is an in depth investigation of the fundamental concepts of mathematics and their properties. The topics range from sets and logic to abstract algebra and proof. **NOTE:** The course serves as a foundation to all other courses in the graduate program. Prerequisite: Permission of the Department Chair.

MATH 908 Geometry for Middle and High School Teachers I

Designed for middle and high school teachers and includes such topics as a comparison between the metric and synthetic approach to geometry, polygons, polyhedra, tessellations, constructions, proof techniques, transformations, symmetry, and geometric modeling. These topics are also used to suggest methods and approaches to the teaching of geometry.

Prerequisite: MATH 901 Foundations of Mathematics or Permission of Program Coordinator.

MATH 910 Algebra for Middle and High School Teachers

Designed for middle and high school teachers and investigates the fundamental concepts of algebra. The topics will include real and complex numbers, binary operations and their properties, set theory, functions, polynomials, equations, algebraic structures, graphing, and related topics.

MATH 913 Mathematical Models of Collective Action

A study of collective action, cooperation, and social choice theory through the lens of mathematical game theory, specifically the Prisoner's Dilemma game. Topics include the effect of group size and selective incentives on the likelihood of success in a one-off group action, strategies that individuals employ in repeated group interactions, and how cooperation can evolve if members of the group have repeated interactions. Special attention is paid to the above topics in the context of a math classroom.

Prerequisites: MATH 901 Foundations of Mathematics

MATH 918 Elementary Number Theory for Teachers

A study of the summation and product notations, recursion, figurate numbers, divisibility, greatest common divisor, the Euclidean algorithm, lowest common multiple, and consequences. The course offers numerous opportunities for experimentation and exploration, and for conjecturing the myriad properties of Pascal's triangle, Fibonacci and Lucas numbers, Catlan numbers, Fermat numbers and Pell numbers. Note: Students cannot receive credit for this course if they have already completed MATH 810 Number Theory. Prerequisite: Permission of Program Coordinator.

MATH 926 Geometry for Middle and High School Teachers II

A continuation of MATH 908 Geometry for Middle and High School Teachers I in which students investigate finite, taxicab, spherical, and non-Euclidean geometrics with an emphasis on hyperbolic geometry. Applications of these geometries to real life problems and other areas of mathematics are surveyed. Students create modules adapting this material to their classrooms.

Prerequisites: MATH 908 Geometry for Middle and High School Teachers I and MATH 910 Algebra for the Middle and High School Teacher.

MATH 928 Problem Solving for Teachers

Designed for middle and high school teachers and emphasizes the study of a variety of types of problems and the strategies that might be used to solve them. One of the important objectives of the course is to immerse teachers in a problem-solving atmosphere that encourages them to make connections to previously learned concepts, to the different areas of mathematics and to the 6-12 curriculum. Topics include problems from the fields of logic, set theory, geometry, number theory, algebra, analysis and probability.

Prerequisites: Graduate coursework in at least three (3) of the following areas: logic, set theory, geometry, number theory algebra, analysis and probability or permission of the Department Chair.

MATH 933 Calculus I for Middle and High School Teachers

An in-depth investigation of the development of Calculus, with a careful treatment of the limit concept with regard to differentiation and integration. The investigation includes various applications of these operations and connects them to familiar problem situations. The importance of algebra and trigonometry skills are illustrated and emphasized.

Prerequisites: MATH 901 Foundations of Mathematics and MATH 910 Algebra for Middle and High School Teachers.

MATH 934 Calculus II for Middle and High School Teachers

A continuation of MATH 933 Calculus I for Middle and High School Teachers. This course investigates the use of the limit concept in the development and application of the concept of integration. The investigation includes the topics of sequences, series, numerical integration and topics related to the Advanced Placement courses presently offered at most high schools.

Prerequisites: MATH 933 Calculus I for Middle and High School Teachers.

Master of Education concentration in Mathematics

MATH 985 Directed Study in Mathematics

Student research on a topic or topics in higher mathematics or computer science. Suggested areas include applied algebra, numerical analysis, and mathematical physics. The student should make arrangements with the faculty member who is to direct his/her work one semester in advance of the work.

MATH 999 Reading and Research in Higher Mathematics

A course where the student writes an essay or a thesis on a topic in higher mathematics, under the direction of a faculty member.

Master of Education

concentration in Nutrition Education

Specialization in Nutrition Education Specialist (offered online)

Program Coordinator: Janet Schwartz
Program Advisor: Janet Schwartz

The Master of Education (M.Ed.) with a concentration in Nutrition Education, specialization in Nutrition Education Specialist (NES) combines the advanced study of education, applied nutrition and nutrition education with the opportunity for students to broaden their expertise in elective courses of their choice. The specialization in Nutrition Education Specialist is designed for:

- Health Educators/counselors in school, healthcare, community programs, and other organizations
- Nutrition professionals with or without certification as a Registered Dietician
- Health, physical education, and consumer science teachers
- School Nutrition Directors

Program Learning Outcomes Masters in Education in Nutrition Education Nutrition Education Specialist:

- Develop effective nutrition education curriculum for a variety of audiences.
- Integrate current science-based nutrition issues into food, nutrition, and wellness policies.
- Design and interpret nutrition education research.
- Select and utilize appropriate technology for nutrition education.

Admission Requirements

- Applicants must have earned a baccalaureate degree from a regionally accredited
 college or university and must submit an official transcript from each college or
 university attended as an undergraduate or graduate student. Bachelor's degree in a
 related field includes: food and nutrition, hospitality, education (physical, health,
 consumer sciences, biology), and nursing. Students with other degrees will be
 reviewed in the application process. Previous coursework must cover the following
 areas:
 - Basic nutrition course or NUED 910 Nutrition Science in the Classroom
 - Biostatistics (preferred) or a statistics course in the last five (5) years
- 2. Applicants are required to possess an overall grade point average (GPA) of at least 3.00 on a 4.00 scale including acceptable grades in science courses.
- 3. All prerequisite courses must be completed.
- 4. Applicants who do not fulfill the GPA requirement but have a minimum quality point average of 2.80 on a 4.00 scale will be considered for admission after they complete two prerequisite courses at Framingham State University. These courses must have prior approval and must be completed with a grade of B (3.00) or better.
- Applicants must provide two letters of recommendation from professors, supervisors, and/or colleagues, submitted on the Framingham State University Letter of Recommendation form and sent directly to the University by the recommender.

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- Applicants must submit a typed, 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities, and career plans.
- 7. Applicants must have a minimum of one (1) year of professional experience.

Applicants are evaluated based on numerous factors including previous college coursework, letters of recommendation, and personal statement.

Application Deadline

Applications for the Master of Education with a concentration in Nutrition Education are accepted on a rolling basis. Although the University accepts on a rolling basis, courses are not offered every semester.

Student applying for the School Nutrition Specialist must apply by June 1st of the preceding academic year to start the internship in the fall. Students admitted after June 1st may still begin their studies in the fall in the other required master's degree courses.

Program Requirements

The program requires a minimum of ten (10) courses which include: three (3) education core courses, four (4) nutrition core courses and three (3) specialization courses, together with undergraduate prerequisite courses required for students without appropriate backgrounds. A minimum of ten (10) courses is required for graduation. A timed online comprehensive examination is required as the student's culminating experience.

Note: All courses are offered online.

Education Core Courses (3)

NUED 911	Research Methods in Nutrition Education
NUED 973	Designing Nutrition Education Programs and Curricula
PBTL 992	Learning and Human Development

Nutrition Core Courses (4)

NUED 914	Contemporary Nutrition Issues in Schools
NUED 970	Computers in Nutrition Education
NUED 978	Public Health Nutrition
NUED 993	Independent Projects in Health and Wellness

Specialization Elective Courses (3)

Three (3) graduate level electives are required. Disciplines may include: nutrition science, nutrition education, management, leadership, organizational change, grantsmanship, counseling, education, health and wellness, and healthcare.

Recommended Specialization Electives:

EDUC 940	Adult Development and Learning
NUED 900	Leadership in Excellence in School Nutrition
NUED 922	Public Health and Nutrition Communication
NUED 936	Behavioral Health Psychology
NUTR 990	Directed Study in Food and Nutrition

Note: An elective not on this list must be preapproved by the program advisor prior to enrolling in the course. Students may also transfers up to two (2) graduate-level elective courses with the prior written approval of the program advisor.

COURSE DESCRIPTIONS

NUED 900 Leadership in Excellence in School Nutrition

A study of the core functions of state child nutrition programs. These include nutrition promotion, nutrition standards, institution and participant eligibility for participation and benefits, compliance and accountability, financial management, reporting/recordkeeping, safety, sanitation and emergency management, training and technical assistance, and state administration of state child nutrition agencies. Laws, regulations, and policies are addressed. This course is designed to develop leadership and partnering skills to influence the quality of nutrition programs and the effective use of resources.

NUED 901 Seminar and Practicum I in School Nutrition

A concentrated and supervised internship in an approved school nutrition site coordinated with online weekly seminars. Students develop knowledge, skills, and competencies necessary to provide school nutrition services as outlined in the School Nutrition Association's Keys to Excellence program areas of Administration, Communications and Marketing, Nutrition and Nutrition Education, and Operations and the School Foodservice and Nutrition Specialist Credentialing Exam Study Guide. Student interns demonstrate the ability to communicate, collaborate, work in teams to solve problems, and apply critical thinking skills. Students are required complete a minimum of 450 hours/semester. NOTE: Students must provide proof of eligibility to work in United States; Serve Safe Certification; State criminal offender record information (CORI). Liability insurance is required. Students must meet any individual worksite regulations.

Prerequisites: Acceptance into the M.Ed. graduate program in Nutrition Education and the School Nutrition Specialist.

NUED 902 Seminar and Practicum II in School Nutrition

A continuation of the concentrated and supervised internship in Seminar and Practicum I in School Nutrition coordinated with online weekly seminars that further develop leadership and management skills. Students typically continue at the same site as Seminar I. Students develop knowledge, skills, and competencies in administration and management necessary to provide school nutrition services as outlined in the School Nutrition Association's Keys to Excellence program areas of Administration, Communications and Marketing, Nutrition and Nutrition Education, and Operations and the School Foodservice and Nutrition Specialist Credentialing Exam Study Guide. Student interns demonstrate the ability to communicate, collaborate, work in teams to solve problems, and apply critical thinking skills. Students are required to complete a minimum of 450 hours/semester at a child nutrition program site plus preparation of written assignments and weekly seminar discussions. NOTE: Students must provide proof of eligibility to work in United States; Serve Safe Certification; State criminal offender record information (CORI). Liability insurance is required. Students must meet any individual worksite regulations.

Prerequisites: NUTR 901 Practice I in School Nutrition.

NUED 910 Nutrition Science in the Classroom

An update for teachers and other health professionals on the application of nutrition principles and research that support dietary guidelines established by the government and voluntary health agencies. Current dietary issues include: heart disease, vitamin supplementation, fad diets, and child and adolescent health. Resources for classroom instruction are presented along with computer applications in nutrition education. NOTE: Credit will not be given for this course and NUTR 760 Nutrition Science in the Classroom. This course cannot be applied to graduate or certificate programs for nutrition professionals. Prerequisite: Bachelor's degree.

NUED 911 Research Methods in Nutrition Education

A study of research techniques applicable to nutrition and education. Using a hands-on approach, students are acquainted with research hypotheses, designs and procedures, basic statistical concepts, and the format of a proposal. Knowledge of these concepts is demonstrated in the design of a research project.

Prerequisites: College-level statistics course in the past five (5) years.

NUED 914 Contemporary Nutrition Issues in Schools

An update for teachers and other school personnel on current topics in nutrition. Research and curricula related to child and adolescent nutrition are explored in depth. Specific topics include: nutrition and learning, eating disorders, prevention of chronic disease, food allergies, sports nutrition, food safety, and biotechnology. Development of original curriculum is required. Credit will not be given for this course and 34.763 Contemporary Nutrition Issues for the Classroom. NOTE: This course cannot be applied to graduate the Master of Science degree, concentration in Food and Nutrition.

NUED 922 Public Health and Nutrition Communications

An exploration of the basics of writing and other forms of communication to effectively reach target populations with health and nutrition information geared towards behavior change. Target populations include families, children, educators, patients, and community stakeholders. Writing articles for a lay audience, crafting press releases, and composing messages for the electronic media are included as students explore where to find factual information that can be applied quickly and effectively. Tactics for choosing topics, evaluating sources, and best practices for contacting the media are discussed and applied. Current technologies such as websites, email, survey tools, and social media will be discussed.

Prerequisite: NUED 914 Contemporary Nutrition Issues in Schools.

NUED 936 Behavioral Health Psychology

An investigation into the biological, psychological, and social factors related to the promotion of health and prevention of illness. The body's nervous, endocrine, digestive, and circulatory systems are explored as well as how they can influence and be influenced by exercise, addiction, diet, stress, pain, and social factors. The reciprocal interaction of the mind and body is emphasized to understand the mechanisms and pathways in disease processes.

NUED 970 Computers in Nutrition Education

A study of technology designed to enhance the efficiency and accuracy of practice in nutrition professions. Investigations include development, application, and evaluation of emerging technologies related to nutrition and education. NOTE: Credit will not be given for this course and NUTR 879 Computer Applications in Nutrition.

Prerequisite: College-level general nutrition course within the past five years.

NUED 973 Designing Nutrition Education Programs and Curricula

A study of the research related to the instructional design process for nutrition programs, curricula, and materials. Emphasis is on the application of scientific principles of teaching and learning. Investigation focuses on maximizing instructional technology to apply learning theory to teaching strategies. Students develop an instructional design to be implemented in NUED 993 Independent Projects in Health and Wellness.

Prerequisite: Five (5) courses completed for the Nutrition Education program and NUED 970 Computers in Nutrition Education (may be taken concurrently).

NUED 978 Public Health Nutrition

A study of nutrition concepts and the political/social realities that affect the nutritional health of populations. The development of nutrition policies at the local, state, and national levels are explored along with the delivery of community-based services. Topics may include: nutritional science in the lifecycle, sociocultural aspects of nutrition, food and nutrition programs, nutrition assessment of populations, food insecurity, health promotion guidelines, and food safety.

Prerequisites: NUTR 914 Contemporary Nutrition Issues for Schools or instrutor's permission.

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NUED 993 Independent Projects in Health and Wellness

The development of an in-depth nutrition education project or curriculum in accordance with nutrition education research and the instructional design developed in NUED 973 Instructional Technologies in Nutrition Education. Projects integrate instructional technology based in learning theory and teaching practice, and match specific teaching strategies to learning needs. Projects are developed and evaluated.

Prerequisite: NUED 973 Instructional Technologies in Nutrition Education.

PBTL 992 Learning and Human Development

Examines human development from a life span perspective covering topics beginning with conception and continuing through the process of aging. Learning and developmental theories are presented with an emphasis on understanding the individual's cognitive, social and emotional growth, and also his/her successful transition through each life stage.

Master of Education

concentration in Nutrition Education, Specialization in School Nutrition Specialist (SNS)

Program Coordinator: Janet Schwartz
Program Advisors: Dr. Ann Johnson
Janet Schwartz

The Master of Education (M.Ed.) with a concentration in Nutrition Education, specialization in School Nutrition Specialist (SNS) combines the advanced study of education, applied nutrition and nutrition education with the development of knowledge, skills and competencies necessary to provide school nutrition services.

The specialization in School Nutrition Specialist (SNS) is designed for those who wish to fulfill the academic and internship requirements to become a School Nutrition Specialist (SNS). Visit the School Nutrition Association at www.schoolnutrition.org for information on these requirements and the national credentialing examination. Through this internship student interns will:

- Prepare to assume district level/supervisory positions in school nutrition
- Understand and assess the nutritional needs of diverse populations, especially of school-aged children at risk and of limited income
- Provide an environment in which interns can appreciate and perform the variety of tasks required for operating successful school foodservice programs
- Prepare to communicate effectively in interactions with other professionals and stakeholders
- Be prepared to sit for the national Nutrition Specialist Credentialing Exam

Program Learning Outcomes Masters in Education in Nutrition Education Nutrition Education Specialist:

- Develop effective nutrition education curriculum for a variety of audiences.
- Integrate current science-based nutrition issues into food, nutrition and wellness
 policies.
- Design and interpret nutrition education research.
- Select and utilize appropriate technology for nutrition education and foodservice operations
- Perform the variety of responsibilities for operating successful school nutrition programs.
- Complete the eligibility requirements to sit for the School Nutrition Association's School Nutrition Specialists Credentialing Exam.

Admission Requirements

- Applicants must have earned a baccalaureate degree* from a regionally accredited
 college or university and must submit an official transcript from each college or
 university attended as an undergraduate or graduate student. Bachelor's degree in a
 related field includes: food and nutrition, hospitality, education (physical, health,
 consumer sciences, biology), and nursing. Students with other degrees will be
 reviewed in the application process. Previous coursework must cover the following
 areas:
 - Basic nutrition or NUED 910 Nutrition Science in the Classroom

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- Foodservices systems
 - Management
 - Basic financial and cost accounting
 - Biostatistics (preferred) or statistics in the last five (5) year and before enrolling in NUED 911 Research Methods in Nutrition Education
- 2. Applicants are required to possess an overall quality point average (QPA) of at least 3.00 on a 4.00 scale including acceptable grades in science courses.
- 3. All prerequisite courses must be completed.
- 4. Applicants who do not fulfill the QPA requirement but have a minimum quality point average of 2.80 on a 4.00 scale will be considered for admission after they complete two prerequisite courses at Framingham State University. These courses must have prior approval and must be completed with a grade of B (3.00) or better.
- Applicants must provide two letters of recommendation from professors, supervisors, and/or colleagues, submitted with the Framingham State University Letter of Recommendation form and sent directly to the University by the recommender.
- Applicants must submit a typed, 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities, and career plans.
- 7. Personal or phone interview required.

Applicants are evaluated based on numerous factors including previous college coursework; letters of recommendation; and personal statement.

Application Deadline

Applications for the Master of Education with a concentration in Nutrition Education are accepted on a rolling basis. Although the University accepts on a rolling basis, courses are not offered every semester.

Student applying for the School Nutrition Specialist must apply by June 1st of the preceding academic year to start the internship in the fall. Students admitted after June 1st may still begin their studies in the fall in the other required master's degree courses.

Program Requirements

The program requires a minimum of ten (10) courses which include: three (3) education core courses, four (4) nutrition core courses and three (3) specialization courses, together with undergraduate prerequisite courses required for students without appropriate backgrounds. A minimum of ten (10) courses is required for graduation.

A timed online comprehensive examination is required as the student's culminating experience.

Note: All courses are offered online.

Education Core Courses (3)

PBTL 992 Learning and Human Development

NUED 911 Research Methods in Nutrition Education

NUED 973 Designing Nutrition Education Programs and Curricula

Nutrition Core Courses (4)

NUED 914 Contemporary Nutrition Issues in Schools
NUED 970 Computers in Nutrition Education

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NUED 978 Public Health Nutrition

NUED 993 Independent Projects in Health and Wellness

Specialization Core Courses (3), School Nutrition Specialist

NUED 900 Leadership in Excellence in School Nutrition

NUED 901 Seminar and Practicum I in School Nutrition

NUED 902 Seminar and Practicum II in School Nutrition

COURSE DESCRIPTIONS

NUED 900 Leadership in Excellence in School Nutrition

A study of the core functions of state child nutrition programs. These include nutrition promotion, nutrition standards, institution and participant eligibility for participation and benefits, compliance and accountability, financial management, reporting/recordkeeping, safety, sanitation and emergency management, training and technical assistance, and state administration of state child nutrition agencies. Laws, regulations, and policies are addressed. This course is designed to develop leadership and partnering skills to influence the quality of nutrition programs and the effective use of resources.

NUED 901 Seminar and Practicum I in School Nutrition

A concentrated and supervised internship in an approved school nutrition site coordinated with online weekly seminars. Students develop knowledge, skills, and competencies necessary to provide school nutrition services as outlined in the School Nutrition Association's Keys to Excellence program areas of Administration, Communications and Marketing, Nutrition and Nutrition Education, and Operations and the School Foodservice and Nutrition Specialist Credentialing Exam Study Guide. Student interns demonstrate the ability to communicate, collaborate, work in teams to solve problems, and apply critical thinking skills. Students are required complete a minimum of 450 hours/semester. NOTE: Students must provide proof of eligibility to work in United States; Serve Safe Certification; State criminal offender record information (CORI). Liability insurance is required. Students must meet any individual worksite regulations.

Prerequisites: Acceptance into the M.Ed. program in Nutrition Education with School Nutrition Specialist.

NUED 902 Seminar and Practicum II in School Nutrition

A continuation of the concentrated and supervised internship in Seminar and Practicum I in School Nutrition coordinated with online weekly seminars that further develop leadership and management skills. Students typically continue at the same site as Seminar I. Students develop knowledge, skills, and competencies in administration and management necessary to provide school nutrition services as outlined in the School Nutrition Association's Keys to Excellence program areas of Administration, Communications and Marketing, Nutrition and Nutrition Education, and Operations and the School Foodservice and Nutrition Specialist Credentialing Exam Study Guide. Student interns demonstrate the ability to communicate, collaborate, work in teams to solve problems, and apply critical thinking skills. Students are required to complete a minimum of 450 hours/semester at a child nutrition program site plus preparation of written assignments and weekly seminar discussions. NOTE: Students must provide proof of eligibility to work in United States; Serve Safe Certification; State criminal offender record information (CORI). Liability insurance is required. Students must meet any individual worksite regulations.

Prerequisites: NUTR 901 Seminar & Practicum I in School Nutrition.

NUED 910 Nutrition Science in Classroom

An update for teachers and other health professionals on the application of nutrition principles and research that support dietary guidelines established by the government and voluntary health agencies. Current dietary issues include: heart disease, vitamin supplementation, fad diets, and child and adolescent health. Resources for classroom instruction are presented along with computer applications in nutrition education. NOTE: Credit will not be given for this course and NUTR 760 Nutrition Science in the Classroom. This course cannot be applied to graduate or certificate programs for nutrition professionals. Prerequisite: Bachelor's degree.

NUED 911 Research Methods in Nutrition Education

A study of research techniques applicable to nutrition and education. Using a hands-on approach, students are acquainted with research hypotheses, designs and procedures, basic statistical concepts, and the format of a proposal. Knowledge of these concepts is demonstrated in the design of a research project.

Prerequisites: College-level statistics course in the past five (5) years.

NUED 914 Contemporary Nutrition Issues in Schools

An update for teachers and other school personnel on current topics in nutrition. Research and curricula related to child and adolescent nutrition are explored in depth. Specific topics include: nutrition and learning, eating disorders, prevention of chronic disease, food allergies, sports nutrition, food safety, and biotechnology. Development of original curriculum is required. Credit will not be given for this course and 34.763 Contemporary Nutrition Issues for the Classroom. NOTE: This course cannot be applied to graduate the Master of Science degree, concentration in Food and Nutrition.

NUED 922 Public Health and Nutrition Communications

An exploration of the basics of writing and other forms of communication to effectively reach target populations with health and nutrition information geared towards behavior change. Target populations include families, children, educators, patients, and community stakeholders. Writing articles for a lay audience, crafting press releases, and composing messages for the electronic media are included as students explore where to find factual information that can be applied quickly and effectively. Tactics for choosing topics, evaluating sources, and best practices for contacting the media are discussed and applied. Current technologies such as websites, email, survey tools, and social media will be discussed.

Prerequisite: NUED 914 Contemporary Nutrition Issues in Schools.

NUED 936 Behavioral Health Psychology

An investigation into the biological, psychological, and social factors related to the promotion of health and prevention of illness. The body's nervous, endocrine, digestive, and circulatory systems are explored as well as how they can influence and be influenced by exercise, addiction, diet, stress, pain, and social factors. The reciprocal interaction of the mind and body is emphasized to understand the mechanisms and pathways in disease processes.

NUED 970 Computers in Nutrition Education

A study of technology designed to enhance the efficiency and accuracy of practice in nutrition professions. Investigations include development, application, and evaluation of emerging technologies related to nutrition and education. NOTE: Credit will not be given for this course and NUTR 879 Computer Applications in Nutrition.

Prerequisite: College-level general nutrition course within the past five years.

NUED 973 Designing Nutrition Education Programs and Curricula

A study of the research related to the instructional design process for nutrition programs, curricula, and materials. Emphasis is on the application of scientific principles of teaching and learning. Investigation focuses on maximizing instructional technology to apply learning theory to teaching strategies. Students develop an instructional design to be implemented in NUED 993 Independent Projects in Health and Wellness.

Prerequisite: Five (5) courses completed for the Nutrition Education program and NUED 970 Computers in Nutrition Education (may be taken concurrently).

NUED 993 Independent Projects in Health and Wellness

The development of an in-depth nutrition education project or curriculum in accordance with nutrition education research and the instructional design developed in NUED 973 Instructional Technologies in Nutrition Education. Projects integrate instructional technology based in learning theory and teaching practice, and match specific teaching strategies to learning needs. Projects are developed and evaluated.

Prerequisite: NUED 973 Instructional Technologies in Nutrition Education.

NUED 978 Public Health Nutrition

A study of nutrition concepts and the political/social realities that affect the nutritional health of populations. The development of nutrition policies at the local, state, and national levels are explored along with the delivery of community-based services. Topics may include: nutritional science in the lifecycle, sociocultural aspects of nutrition, food and nutrition programs, nutrition assessment of populations, food insecurity, health promotion guidelines, and food safety.

Prerequisites: NUTR 914 Contemporary Nutrition Issues for Schools or instructor's permission.

PBTL 992 Learning and Human Development

Examines human development from a life span perspective covering topics beginning with conception and continuing through the process of aging. Learning and developmental theories are presented with an emphasis on understanding the individual's cognitive, social and emotional growth, and also his/her successful transition through each life stage.

Master of Education concentration in Science, Technology, Engineering, and Mathematics (STEM) for Teachers in Grades 1-6

Program Coordinator: Dr. Lawrence McKenna
Program Advisor: Dr. Lawrence McKenna

The Master of Education (M.Ed.) with a concentration in Science, Technology, Engineering, Mathematics (STEM) is designed for teachers in Grades 1-6 who want to increase their knowledge and comfort with science, technology, engineering and math content, as well as the pedagogical skills necessary to create and support a 21st century inquiry learning environment. The program features hybrid courses (both face-to-face and online interaction) that use global resources and model pedagogy that engage and include all learners. Each course simulates a genuine classroom where participants have a variety of opportunities to communicate, share, and link ideas, while taking on a different teams. Technology tools and applications are used to infuse each course.

The program is designed as a two-year cohort program that encompasses three summers and two academic years. Pre-assignments for summer courses are a regular expectation for all three summers.

Admission Requirements

- Applicants must have earned a baccalaureate degree from a regionally accredited college or university and must submit an official transcript from each college or university attended as an undergraduate or graduate student.
- The applicant must be a practicing teacher who holds a Massachusetts
 Department of Elementary and Secondary Education license in either Elementary
 Education or Early Childhood Education at the Initial level (or above)
- 3. The applicant must have a minimum undergraduate minimum grade point average of 2.80 on a 4.00 scale.
- 4. The applicant must submit satisfactory scores on the Graduate Record Examination (GRE) General Test. (Applicants who already earned a master's degree in any field are exempt from this requirement.)

Application Deadline

Applications are accepted on a rolling basis for the fall and spring semester. Completed applications should be on file by July 1st for fall and December 1st for spring. Applications received after this date cannot be guaranteed timely matriculation. The Admissions Committee will begin review of an application only upon receipt of official copies of all required documents.

Program Requirements

The program requires successful completion of ten (10) courses which include three (3) core courses, six (6) required courses and one (1) elective. An oral comprehensive examination is required of all students as the culminating experience. The exam is taken during the student's final semester of study. A professional portfolio must be completed prior to the oral comprehensive examination as part of the degree program. Each course will require a product or project that students will add to their portfolio.

Education Core Courses (3)

Philosophy of Education and Teaching Practice
Language Developments and Communication
Research and Evaluation (recommended after completion of three Content/Concentration courses)

Concentration Courses (6)

STEM 915	The Art of Engineering and Design
STEM 929	Number, Operations, and Representation
STEM 932	Poetry and Pattern in the Natural World of Science
STEM 945	21st Century Technology Tools for Teaching and Learning
STEM 959	Examining the World through Data and Shape
STEM 962	A World Connected: Interdependence and Systems in Science

Elective Course (1)

To be selected from the following:

LTRC 907	Literacy Instruction
SPED 962	Developmental Pattern of Children with Special Needs
TESL 936	The Teaching of Second Language Skills

COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

An understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

A consideration of typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

A focus on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

LTRC 907 Literacy Instruction

An address of the principles of reading and writing instruction at all levels and includes reading and writing process, skills and strategies, phonemic awareness and phonics, approaches, instructional materials, and informal assessment.

STEM 915 The Art of Engineering and Design

A team-based approach for educators to gain experience with the engineering design process as they explore solutions to open-ended design challenges presented in class. Educators have the opportunity to collaborate with colleagues as they explore how the art of design can apply to learning across the curriculum. This course examines the elements of the engineering design process and offers a variety of experiences in applying the design process in various content areas. It provides an opportunity to explore various Web and mobile technologies educators use to engage their students in the art of design.

STEM 929 Number, Operations, and Representation

An investigative approach to the study of the concepts underlying the mathematics taught in grades K-6 and the connections to algebra, science, engineering, and technology. As students explore relationships between number, operations, and representations in several contexts, they develop an understanding of the structure and coherence of mathematics and an understanding of ways that mathematics can be used to describe real-world concepts and to solve problems. Collaboration between students is an important component of the course as is the development of a positive disposition towards mathematics. The Common Core Standards for Mathematical Practice and Standards for Mathematical Content is used to help students relate the concepts learned in the course to their classroom practice.

STEM 932 Poetry and Pattern in the Natural World of Science

An integrated approach to the study of the laws, patterns, and processes of the natural world. Science is about investigation of nature, asking and seeking answers to the "why" and "how" questions that come naturally to children. This course attempts to reconnect students with that sense of wonder and curiosity by exploring questions and topics that cross the boundaries between traditionally separate science subjects. Science content, based on the Massachusetts Curriculum Frameworks, is integrated with pedagogy so students not only learn about science topics but also ways they can include these topics in their own classrooms. Emphasis is also placed on addressing and correcting common misconceptions. Organizing themes that connect the physical, earth and life sciences in this course include: our place in the universe, the solar system and earth's seasons, and matter and the building blocks of life.

STEM 945 21st Century Technology Tools for Teaching and Learning

Designed to provide educators with multiple project-based opportunities to explore and apply new technologies that impact how we learn and influence how we teach. This course examines two distinct and equally challenging aspects of Web technology: effectively using these technologies in the classroom while considering the legal and ethical use of such technologies and successfully integrating the online learning community into an educator's own professional learning. Working in a collaborative environment, students develop an approach to find and evaluate tools and facilities that aid in accomplishing a variety of specific tasks. Students also develop strategies and skills to reflect on and evaluate those tools and approaches on a continuing basis. Students learn how to effectively incorporate new trends in professional learning. Social networking broadens the comprehensive resources available to educators to enhance both their personal and professional learning.

STEM 959 Examining the World through Data and Shape

An investigative approach to the study of the concepts underlying the mathematics taught in grades K-6 and the connections to science, engineering, and technology. As students explore the relationships between shape, dimension, and transformations in several contexts and collect data, describe characteristics of data, and infer results, they develop an understanding of the basic concepts of geometry and statistics and the ways in which mathematics can be used to study variation in the real-world. Collaboration between students is an important component of the course as is the development of a positive disposition towards mathematics. The Common Core Standards for Mathematical Practice and Standards for Mathematical Content is used to help students relate the concepts learned in the course to their classroom practice.

STEM 962 A World Connected: Interdependence and Systems in Science

An exploration of how the living world is connected to its physical surroundings. This course takes an integrated approach to the scientific study of Earth and its inhabitants. Students examine dynamic systems ranging from single cells to organisms and ecosystems and explore how life is both constrained by and dependent upon the chemical and physical environment. Science content, based on the MA Curriculum Frameworks, is integrated with pedagogy so students not only learn about science topics but also ways they can include these topics in their own classrooms. Emphasis is be placed on addressing and correcting common misconceptions. Organizing themes for this course include: Earth systems and evolution of life, the flow of energy, and physics of the senses.

SPED 962 Developmental Pattern of Children with Special Needs

A review of the developmental sequence from birth through adulthood with emphasis on cognitive, social, emotional, physical and language development and growth, and examines various pervasive and developmental delays and disabilities. Particular emphasis is placed on the study of the categories of disabilities defined in federal and state regulations. Study of cross cultural competence and ways families may view disabilities and special education is included. This course includes a required pre-practicum field-based experience of 25 hours in a public school or other approved educational setting. A portion of the hours should be spent in an inclusive, general education setting.

TESL 936 The Teaching of Second Language Skills

An examination of the theories and sheltered principles for developing the language skills of listening, speaking, reading, and writing for second language learners. Special attention is given to second language learners in bilingual or multilingual classrooms. Language assessment instruments are studied. Individual and social variables that affect performance are treated. The incorporation of the Massachusetts Curriculum Frameworks into lesson plans is emphasized. **Note:** Students cannot receive credit for both this course and either TESL 918 The Teaching of English Language Skills or TESL 955 Advanced Instructional Techniques in the Teaching of Foreign/Second Language.

Master of Education concentration in Special Education

Program Advisors: Dr. Katherine Hibbard

Dr. Kathleen Larche Dr. Rosanne Majoy

Dr. Katherine Hibbard

The Master of Education (M.Ed.) with a concentration in Special Education prepares teachers to obtain an Initial License as a Teacher of Students with Moderate Disabilities at Grade PreK-8 or Grades 5-12.

Admission Requirements

(Moderate Disabilities)

Program Coordinator:

- The applicant must have earned a baccalaureate degree from a regionally accredited college or university.
- The applicant must possess a Massachusetts teaching license at the Initial level or above

or

Submit evidence of passing scores in the Massachusetts Test for Educator Licensure (MTEL) as listed below:

For PreK-8 License:

- Communication Literacy Skills Test
- General Curriculum Test (both subsets)

or

General Curriculum: Multi-Subject <u>and</u> one test in Mathematics (Elementary, Middle School, or High School)

For the Grades 5-12 License;

- Communication and Literacy Skills Test (both subsets)
- General Curriculum Test (both subsets)

or

One of the following subject matter tests at the 5-8 or 8-12 level (unless otherwise specified): English, History, Mathematics, Middle School Humanities (5-8), Middle School Mathematics/Science (5-8), Biology, Chemistry, Earth Science, General Science (5-8), Physics, or Political Science/Political Philosophy.

Applicants who do not hold an initial license and who are undecided about what level of license they wish to pursue or whether or not they will seek licensure should submit the MTEL tests for the PreK-8 licensure level.

- The applicant must have a minimum undergraduate minimum grade point average of 2.70 on a 4.00 scale.
- 4. The applicant must submit satisfactory scores on the Graduate Record Examination General Test.
- Applicants must provide two letters of recommendation from professors, supervisors, and/or colleagues, submitted with the Framingham State University letter of recommendation form and sent directly to the University by the recommender.

- 6. Applicants must submit a typed, 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities and career plans.
- 7. Applicants may also be asked to submit additional materials or they may be invited for a personal interview as part of the admission requirements.

Program Requirements

The Program requires successful completion of twelve (12) courses, in addition to a practicum for those seeking an Initial License as a Teacher of Students with Moderate Disabilities. A professional portfolio must be completed and presented prior to the required oral comprehensive examination as part of the degree program. The oral comprehensive exam is taken during the student's final semester of study in the degree program (including practicum) or the semester immediately following the final semester in which all coursework has been completed.

Education Core Courses (3):

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Developments and Communication
EDUC 999	Research and Evaluation (recommended after completion of three Content/Concentration courses)

Concentration Courses (9):

INST 968	Introduction to Assistive Technology
LTRC 907	Literacy Instruction
LTRC 930	Literacy Instruction for Diverse Learners
SPED 937	Connecting Mathematical Concepts and Teaching
SPED 956	Curriculum Development and Modification
SPED 960	Assessment Procedures
SPED 962	Development Patterns of Students with Moderate Disabilities
SPED 963	Behavior and Classroom Management
SPED 964	Collaborative Educational Planning

Practicum (for those seeking Licensure only)

Candidates seeking an Initial license as a Teacher of Students with Moderate Disabilities at the Grades PreK-8 level must complete a 300-hour practicum. Seventy-five (75) hours of the practicum must be completed in an inclusive, general education setting in grades PreK-8. The remaining 225 hours may be completed in inclusive, general education settings or in separate or substantially separate settings for students with moderate disabilities in grades PreK-8. Upon approval of their practicum application, candidates enroll in:

SPED 944 Practicum in Moderate Disabilities: Grades PreK-8.

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Special Education (Moderate Disabilities)

Candidates seeking an Initial license as Teacher of Students with Moderate Disabilities at the Grades 5-12 level must complete a 300-hour practicum. One hundred-fifty (150) hours of the practicum must be completed in an inclusive, general education setting in grades 5-12. The remaining 150 hours may be completed in inclusive, general education settings or in separate or substantially separate settings for students with moderate disabilities in grades 5-12. Upon approval of their practicum application, candidates enroll in:

SPED 945 Practicum in Moderate Disabilities: Grades 5-12.

Note: The practicum is not required of Candidates who are not seeking licensure.

The practicum is completed with the degree program for candidates seeking their first Initial License. For candidates who hold an Initial or Professional License in another area, the practicum may be completed after the degree in limited situations with the approval of the Program Coordinator.

Guidelines for Practicum in Special Needs

Candidates are expected to secure their own placement site which must be approved by the University. The placement site(s) must meet the practicum criteria for the licensure level the student is seeking. Candidates who need assistance securing a placement site should consult with their program advisor and the program coordinator. Candidates must submit a practicum application at least three (3) months before the semester during which they want to take the practicum.

For a Fall practicum, apply no later than June 1st.

For a **Spring** practicum, apply no later than October 15th.

For a **Summer** practicum, apply no later than March 1st.

When the practicum application is approved by the Dean of Graduate Studies and the program coordinator, the candidate may register for the appropriate practicum course.

Candidates who are employed in a regular education setting as a general education teacher or as a paraprofessional, even if that setting includes Candidates who receive special education services, are not considered to be in the role of the special education teacher; therefore that position may not be used for the practicum experience.

Candidates may complete some practicum hours in approved public or private day or residential schools for students with moderate disabilities. These settings may <u>not</u> be used for required hours in inclusive, general education classrooms.

Note: Candidates must have completed all concentration courses prior to the practicum semester or be enrolled in the final concentration course concurrently with the practicum course. Candidates may not take more than one course in addition to the practicum during the practicum semester.

Evidence of passing scores on all required MTEL tests must be on file before beginning the practicum. Candidates who have not passed all required MTEL tests prior to the first day of the semester in which they have registered to take the practicum will have to withdraw from the practicum course.

Sheltered English Instruction Endorsement

Candidates seeking the Moderate Disabilities (PreK-8 or 5-12) License are required to obtain the Sheltered English Instruction (SEI) endorsement in one of the following ways:

 Complete the Department of Elementary and Secondary Education (DESE) approved SEI course, TESL 913 Current Issues in Second Language Acquisition, through Framingham State University.

Note: You must be matriculated in a graduate program to pursue this option.

- Complete the DESE approved SEI course through your school district (available to district employees).
- Complete the DESE approved SEI course through another licensure program (e.g. candidates who are adding the Moderate Disabilities license completed an approved SEI course as an undergraduate.
- 4. Pass the SEI MTEL test (Available beginning Spring 2016).
- 5. Hold an ESL License (PreK-6 or 5-12).
- 6. Hold a Bachelor's or Master's degree in ESL.
- 7. Hold a Bachelor's or Master's degree in a related field, as determined by the DESE (e.g. Applied Linguistics).
- Completed two or three category trainings (from the previous ELL training system) and complete the modified SEI course offered by the DESE.

COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

INST 968 Introduction to Assistive Technology

An exploration of the definitions of assistive technology, and investigates the scope of assistive technology services and devices and their applications for use in the home, school, workplace and community activities. Students examine current research and development in the field. Students study federal and state laws and regulations regarding assistive technology, and identify local funding sources and funding issues. Students develop knowledge of occupational therapy and physical therapy and the role of the therapists in the assistive technology service planning process. Students practice effective communication and collaboration skills; develop skills in working with individuals and families using a client-centered process that fosters self-determination; develops cross-cultural competence to work with clients from diverse cultural backgrounds; and examines ethical and related professional issues.

LTRC 907 Literacy Instruction

Addresses principles of reading and writing instruction at all levels and includes reading and writing process, skills and strategies, phonemic awareness and phonics, approaches, instructional materials, and informal assessment. *Note: Credit will not be given for both LTRC 907 Literacy Instruction and LTRC 830 Advanced Literacy Instruction & Developmental Reading.*

LTRC 930 Literacy Instruction for Diverse Learners

Addresses differentiated instruction in reading and writing including assessment, learner profiles, instructional design, and implications for literacy learning. Students design and implement a literacy program for learners with disabilities. This course includes a required pre-practicum, field-based experience of 25 hours. The majority of the time is spent working with an individual student.

Prerequisite: LTRC 907 Literacy Instruction. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 937 Connecting Mathematical Concepts and Teaching

Designed for teachers to investigate the major mathematical concepts and content found in the Massachusetts Mathematics Curriculum Framework, in order to improve their understanding and recognition of connections within the mathematical curriculum. By analyzing classroom cases, participants learn to identify mathematical concepts with which students struggle. Teachers improve their ability to communicate mathematical ideas to students.

SPED 944 Practicum in Moderate Disabilities: Grades PreK-8

For students seeking the Teacher of Students with Moderate Disabilities, PreK-8 License. A 300-hour experience in Grades PreK-8, 75 hours of which must be completed in an inclusive, general education setting. The remaining 225 hours may be completed in an inclusive, general education setting or in a separate or substantially separate setting for students with moderate disabilities. The practicum student's responsibilities in both the inclusive general education setting and the separate/substantially separate setting (if part of the student's experience) mirror the breadth and depth of the responsibilities of a special education teacher in those settings, including co-planning, co-teaching, small group and whole class instruction, individualized and specialized instruction, implementing and assessment/testing evaluating accommodations and modifications (including accommodations and modifications), supporting students' behavioral needs, assisting students with organization and study skills, and related activities as described in students' IEPs. The practicum student participates in IEP meetings and parent conferences. In addition, the practicum student administers, under supervision, individualized achievement tests to one student and prepares a comprehensive report of the findings. The practicum student assumes full responsibility for teaching for a minimum of half of the hours of the practicum. Students secure their own placement site(s), which must be approved by the University. Permission of the Program Coordinator and Dean are required. Application must be submitted a minimum of three months prior to the semester the student wants to enroll in the practicum.

Prerequisites: Submission of evidence of passing scores on all MTEL tests required for the PreK-8 license prior to the first day of the practicum; completion of all special education concentration courses or enrollment in the final concentration course concurrently with the practicum. Only one course may be taken concurrently with the practicum course.

SPED 945 Practicum in Moderate Disabilities: Grades 5-12

For students seeking the Teacher of Students with Moderate Disabilities, Grades 5-12 License. A 150- hour experience in Grades 5-12, 75 hours of which must be completed in an inclusive, general education setting. The remaining 75 hours may be completed in an inclusive, general education setting or in a separate or substantially separate setting for students with moderate disabilities. The practicum student's responsibilities in both the inclusive general education setting and the separate/substantially separate setting (if part of the student's experience) mirror the breadth and depth of the responsibilities of a special education teacher in those settings, including co-planning, co-teaching, small group and whole class instruction, individualized and specialized instruction, implementing and accommodations and modifications (including evaluating assessment/testing accommodations and modifications), supporting students' behavioral needs, assisting students with organization and study skills, implementing and evaluating individualized transition plans, and related activities as described in students' IEPs. The practicum student may also provide consultative services and coaching to general education teachers. The practicum student administers, under supervision, individualized achievement tests to one student and prepares a comprehensive report of the findings. The practicum student assumes full responsibility for teaching for a minimum of half of the hours of the practicum. Students secure their own placement site(s), which must be approved by the University. Permission of the Program Coordinator and Dean are required. Application must be submitted a minimum of three months prior to the semester the student wants to enroll in the practicum.

Prerequisites: Submission of evidence of passing scores on all MTEL tests required for the 5-12 license prior to the first day of the practicum; completion of all special education concentration courses or enrollment in the final concentration course concurrently with the practicum. Only one course may be taken concurrently with the practicum course.

SPED 956 Curriculum Development and Modification

This course is a utilization of various curriculum design models, such as Universal Design for Learning (UDL) and differentiation to plan instruction and address the needs of students with and without disabilities. Classroom structure and design, cooperative learning, peer tutoring, social skills coaching, Alternative and Augmentative Communication (AAC) approaches, and co-teaching models are explored. Emphasis is placed on collaborative planning and implementation of curriculum using Individualized Educational Programs (IEPs) and the Massachusetts Curriculum Frameworks. This course requires a prepracticum field based experience of 25 hours in a public school or other approved educational setting.

Prerequisite: SPED 962 Developmental Patterns of Children with Moderate Disabilities. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 960 Assessment Procedures

This course is an observation, recording and analysis of student's academic performance through culturally sensitive formal and informal assessments. Diagnostic tests in areas of cognitive, academic, motor and social development, and approaches such as archival research, the development of a comprehensive case study, and portfolio assessment techniques are used. Collaboration with other professionals to develop a comprehensive assessment of the student's abilities is an integral part of the course. Translation of results into meaningful educational practice is stressed. This course includes a required prepracticum field-based experience of 25 hours in a public school or other approved educational setting. The majority of time is spent working with an individual student.

Prerequisite: SPED 962 Developmental Patterns of Children with Moderate Disabilities. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 962 Developmental Patterns of Students with Moderate Disabilities

A review of the developmental sequence from birth through adulthood with emphasis on cognitive, social, emotional, physical and language development and growth, and examines various pervasive and developmental delays and disabilities. Particular emphasis is placed on the study of the categories of disabilities defined in federal and state regulations. Study of cross cultural competence and ways families may view disabilities and special education is included. This course includes a required pre-practicum field-based experience of 25 hours in a public school or other approved educational setting. A portion of the hours should be spent in an inclusive general education setting.

SPED 963 Behavior and Classroom Management

Designed to familiarize students with positive behavior supports, with emphasis on prevention and intervention strategies. Systematic data collection, objective reporting, and various methods of reinforcement to elicit appropriate behavior are examined and practiced. Many theories are explored with provisions for teachers to select options in order to meet the individual needs of students in small and large group settings.

Prerequisite: SPED 962 Developmental Patterns of Children with Moderate Disabilities. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 964 Collaborative Educational Planning

Preparation and review of Individual Educational Programs (IEPs) to comply with existing federal and state regulations. Topics include eligibility guidelines, inclusive service delivery models, and progress monitoring. Exemplary practices such as Response to Intervention, collaborative decision making, and inclusive practices and supports are addressed. Students examine appropriate resources and agencies, including those necessary to facilitate smooth transitions into and out of public school settings, including early intervention transition to preschool and high school transition to post-secondary experiences.

Prerequisite: SPED 960 Assessment Procedures. Open to matriculated graduate students or by permission of the special education program coordinator.

Master of Education concentration in The Teaching of English as a Second Language (TESL)

Program Coordinator: Dr. Marguerite Mahler
Program Advisor: Dr. Marguerite Mahler

The Master of Education (M.Ed.) with a concentration in The Teaching of English as a Second Language (TESL) is designed for teachers interested in fostering academic success for learners whose language is not English. It takes into consideration the needs of the new immersion classroom and provides instructors with the theoretical and practical knowledge to promote effective teaching of English language skills and sheltered content areas. The degree, along with practicum and other requirements leads to an Initial License in English as a Second Language (Grades PreK-6 or Grades 5-12). (See Initial Teacher License Requirements below.)

Admission Requirements

- The applicant must have a baccalaureate degree from a regionally accredited college or university.
- The applicant must have a minimum undergraduate minimum grade point average of 2.80 on a 4.00 scale or a quality point average of 3.00 for all coursework completed in the last two years of undergraduate study.

Program Requirements

The program requires successful completion of the following ten (10) courses. A written comprehensive examination is required as the student's culminating experience. The exam is taken during the student's final semester of study or shortly thereafter.

Education Core Courses (3)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Developments and Communication
EDUC 999	Research and Evaluation (recommended after
	completion of three Concentration courses)

Concentration Courses (7)

TESL 901	Language Structure: Phonetics and Morphology
TESL 902	Language Structure: Syntax, Semantics, and Pragmatics
TESL 913	Current Issues in Second Language Acquisition
TESL 920	Technology in the Second Language Classroom
TESL 936	The Teaching of Second Language Skills
TESL 948	Teaching Reading and Writing in the English Immersion Classroom
TESL 966	Seminar in Applied Linguistics

Initial Teacher License Requirements

In addition to the above ten (10) courses, students seeking an Initial Teacher Licensure in English as a Second Language need the following:

- 1. A passing score on the Communication and Literacy Skills Tests of the Massachusetts Test for Educator Licensure (MTEL).
- 2. A passing score on the ESL Subject Matter Test of the MTEL.
- *TESL 980 Practicum in the Teaching of English as a Second Language and Seminar: Grades PreK-6.

OR

TEST 981 Practicum in the Teaching of English as a Second Language and Seminar: Grades 5-12

The 300-hour practicum requires written permission of the Program Advisor and Dean of Graduate Studies at least three months prior to registering for the practicum. Students must locate their own practicum site, which must be approved by the University.

*Teachers who seek to add the ESL license at the grade level for which they already hold a teacher license are required to complete a 150-hour practicum.

COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

TESL 901 Language Structure: Phonetics and Morphology

An introduction to the universal linguistic properties of sound systems and the basic features of the sound system of English. The rules of word formation and aspects of morphological typology are also examined. English is compared and contrasted with other languages. Note: This course satisfies the M.Ed. in Spanish program requirement of Romance linguistics study.

TESL 902 Language Structure: Syntax, Semantics, and Pragmatics

An introduction to the ways in which words are organized to form sentences and how words and syntactic structure combine to yield meaning. The combining of sentences into conversations to express a range of attitudes and relationships is also covered. English is compared and contrasted with other languages. *Note: This course satisfies the M.Ed. in Spanish program requirement of Romance linguistics study.*

TESL 913 Current Issues in Second Language Acquisition

A review of recent research and theories of second-language acquisition and the factors that lead to successful English proficiency in the academic environment. Exposure to standards-based English Language proficiency testing instruments and their purposes relative to identification of competencies and placement of the ELL's. Practice with test interpretation and administration of a variety of formal, informal, and authentic assessments through a case study assignment, and pursuant to the case study the demonstration of how English Language proficiency tests are in alignment with WIDA standards. Consideration of language difference vs. learning disability is included.

TESL 920 Technology in the Second Language Classroom

An exploration of the use of current technologies in teaching and learning in the second language and foreign language classroom. Attention is given to technologies that enhance collaboration, communication, and creativity among learners. Includes the design of lesson plans that incorporate technologies such as Wikis, Blogs, Podcasts, and other collaborative web-based tools for classrooms.

TESL 932 Sheltered Instruction for the Content Area

Focuses on the development of content lessons and strategies in the teaching of sheltered subject matter. Student learning assessment is incorporated in course materials and projects.

TESL 936 The Teaching of Second Language Skills

An examination of the theories and sheltered principles for developing the language skills of listening, speaking, reading, and writing for second language learners. Special attention is given to second language learners in bilingual or multilingual classrooms. Language assessment instruments are studied. Individual and social variables that affect performance are treated. The incorporation of the Massachusetts Curriculum Frameworks into lesson plans is emphasized. **Note:** Students cannot receive credit for both this course and either TESL 918 The Teaching of English Language Skills or TESL 955 Advanced Instructional Techniques in the Teaching of Foreign/Second Language.

TESL 948 Teaching Reading and Writing in the Sheltered English Immersion Classroom

An exploration of reading and writing theory and research and their application in shaping and developing literacy skills in English language learners. Balanced reading and writing instruction, specific sheltered English literacy strategies that include vocabulary development, and measures for assessing literacy skills form the core of this course. The Sheltered Instruction Observation Protocol and related content lessons and materials are included.

TESL 966 Seminar in Applied Linguistics

An advanced seminar whose topics change from term to term. Topics in sociolinguistics, psycholinguistics, discourse analysis, and conversational analysis are considered.

TESL 980 Practicum and Seminar in the Teaching of English as a Second Language, Grades PreK-6

For students seeking an Initial Teacher License in English as a Second (ESL), grades PreK-6. A field-based 300-hour practicum experience in grades PreK-6 demonstrating mastery of the subject matter knowledge. The candidate must also meet the Professional Standards for Teachers as described in the Massachusetts Department of Elementary and Secondary Education Regulations for Educator Licensure. Students secure their own placement site, which must be approved by the University.

Prerequisites: Passing scores on all MTEL tests required for the license; successful completion of all required courses in the Master of Education with a concentration in the Teaching of English as a Second Language (TESL); or permission of advisor.

TESL 981 Practicum and Seminar in the Teaching of English as a Second Language, Grades 5-12

For students seeking an Initial Teacher License in English as a Second (ESL), grades 5-12. A field-based 300-hour practicum experience in grades 5-12 demonstrating mastery of the subject matter knowledge. The candidate must also meet the Professional Standards for Teachers as described in the Massachusetts Department of Elementary and Secondary Education Regulations for Educator Licensure. Students secure their own placement site, which must be approved by the University.

Prerequisites: Passing scores on all MTEL tests required for the license; successful completion of all required courses in the Master of Education with a concentration in the Teaching of English as a Second Language (TESL); or permission of advisor.

Concentration in Healthcare Administration

Master of Healthcare Administration concentration in Healthcare Administration

Program Coordinator:Linn A. MorrillProgram Advisor:Linn A. Morrill

The Master of Healthcare Administration (M.H.A.) with a concentration in Healthcare Administration provides the knowledge and practical skills necessary for Healthcare Administration. The program is designed for the person with employment experience within the healthcare field who is now seeking a career move into administration, or the person who is currently working in administration and now desires the theoretical tools to support this position. In this period, when great challenges face the healthcare system, excellence in management decision-making is of the greatest importance. The M.H.A. program provides a pragmatic approach which balances the theoretical with the practical, and is designed to aid the student in the decision-making process. After completion of the program, students are expected to be able to analyze problems, develop solutions, and articulate those solutions in well written and good oral form.

Admission Requirements

The Masters of Healthcare Administration with a concentration in Healthcare Administration is open to experience health care professionals who can demonstrate their ability to complete successfully a program of graduate study and who have the desire to work within the field of healthcare at the administrative level.

Applicants must have earned a baccalaureate degree from a regionally accredited college or university. Students are evaluated primarily on the basis of experience in healthcare, on the distribution of courses taken in another graduate program, and, if applicable, courses taken in another graduate program, and on their undergraduate and graduate grades. An overall undergraduate quality point average of 3.00 on a 4.00 scale in a program acceptable to the admissions committee is expected. Students who do not meet these requirements may be offered the opportunity to demonstrate their ability to do successful graduate work by:

1. Taking two advisor-approved courses and earning a grade of B (3.00) or better in each course;

OR

 Taking either the Graduate Management Admissions Test, Graduate Record Examination, or the Miller Analogies Test and achieving a score in the 60th percentile higher.

In addition to a suitable QPA or possession of other indicators of academic success, admission will be granted only to persons with acceptable employment experience. Acceptable employment is usually verified by appropriate letters of recommendation. This requirement may be waived after a personal interview.

Evaluation of the materials submitted by the applicant for admission to the Masters of Arts program will begin as soon as all required documents have been received. Applicants may be admitted to the program for the Fall and Spring semesters, although courses may be taken during the summer.

Program Requirements

The program consists of eleven (11) core courses and one (1) prerequisite course. The prerequisite course may be waived for persons having a similar course elsewhere.

Waivers are not granted for non-academic prior learning, and are determined solely on the basis of the student's undergraduate or graduate record. All waivers require written approval by the advisor.

Students are expected to be familiar with office/management software.

Students may take courses in any sequence subject to the following general requirements:

- 1. Students must observe prerequisites. Courses taken without the proper prerequisites will not be applicable to the student's degree requirements unless written approval is obtained from the student's advisor.
- HCAD 984 Seminar in Healthcare Administration must be taken in the final semester of the program. Exceptions, requiring written advisor approval, may be made for students taking an elective course over the summer. Registration for the seminar requires prior written permission from the Dean of Graduate Studies. Students will not be permitted to fulfill this requirement with a course transferred from another institution.

Undergraduate Prerequisite Course (1)

OUAN 676	Statistical	Analyzac	for Mana	core
UUAN 0/0	Statistical	Anaivses	for Mana	gers

MATH 117 Introduction to Statistics

Program Core Courses (10) TIG . D

HCAD 909	Healthcare Delivery System, Policy and Reform
HCAD 917	Health Law, Regulations, and Ethics
HCAD 920	Strategic Planning of Healthcare Services
HCAD 924	Healthcare Economics and Financing
HCAD 930	Managing Operations
HCAD 940	Healthcare Informatics and Technology
HCAD 950	Healthcare Marketing
HCAD 955	Budgeting in Healthcare Facilities
MGMT 904	Management and Leadership
QUAN 908	Quantitative Analysis for Administrators

Program Capstone (1)

HCAD 984 Seminar in Healthcare Administration

Healthcare Administration

COURSE DESCRIPTIONS

HCAD 909 Healthcare Delivery System Policy and Reform

An overview of American health care services since their inception to the present. Emphasis is on public and private hospital, clinics, and HMOs; health care insurance, Medicare and Medicaid; and health care policy, legislation and reform.

HCAD 917 Health Law, Regulations and Ethics

An examination of the laws, administrative regulations, and ethical issues of health care services. Topics include laws regarding patient access, fraud, public and private funding; liability and risk management; licensing and accreditation; legal issues concerning patient safety and rights, HIPPA, and medical error; and ethical issues related to health care services.

HCAD 920 Strategic Planning of Healthcare Services

An overview covering the development and implementation of strategic plans for health care facilities. Topics include models for health care services and support systems, organizational and service planning; fiscal planning, capital improvements and investments; and assessment of organizational strengths and weaknesses.

HCAD 924 Healthcare Economics and Financing

An overview of the economics and financing of health care services that includes consumers, suppliers, insurance companies and HMOs. Topics include Healthcare Consumption Demand; Healthcare Services Supply; economics of hospital operations, long-term care and cost containment; pre-paid health services and regulatory approaches based on prospective payment systems; strategies to ensure equitable access to health services; and measures to control health care and health insurance cost. The course will compare accounting systems of both non-profit and for-profit health care facilities.

HCAD 930 Managing Operations

A focus upon improving operations systems and service delivery within health care, public, and non-profit organizations. Topics include service design and development, quality control and assurance systems, technology utilization and application, equipment maintenance, accountability and monitoring issues, and enhancing service delivery in a cost-effective manner.

HCAD 940 Healthcare Informatics and Technology

An introduction to the role of health care information and technology in today's health care industry. Topics include the management and financing of electronic health records; aligning health care information technology with health care reform; the health care claim cycle; the changing patient landscape, rise of retail clinics, and interfacing technology systems; the role of health care information technology in documenting and protecting providers.

HCAD 950 Healthcare Marketing

A concentration on specific health care marketing models to include program development, identification or target populations, internal and external marketing strategies and the evaluation of the marketing plan. Students will participate in the development of a market plan for a health care product and/or service.

HCAD 955 Budgeting in Healthcare Facilities

A description of the various budgetary systems and issues affecting the operation of health care facilities. The course focuses upon the development and implementation of an operating budget and annual fiscal plan. Revenue sources for the facility and allocation of resources to facility departments will be analyzed.

HCAD 984 Seminar in Healthcare Administration

Students analyze current and evolving issues in health care service delivery and administration. Students create and present original project in health care.

Prerequisites: Satisfactory completion of all other degree requirements and permission of the Program Coodinator.

MGMT 904 Management and Leadership

Addresses managerial and leadership styles and the dynamics of organizational behavior. Topics include: managerial effectiveness strategies, leadership styles, organizational structuring issues, interpersonal relationships, and the building and managing of teams (formerly Managerial Theory).

QUAN 908 Quantitative Analysis for Administrators

A quantitative approach to problem-solving and decision-making for administrators. Topics includes hypothesis development and testing; and statistical inferences using multiple regression analysis, covariance analysis, factor analysis, discriminate analysis, and linear models for cross-classified categorical data.

Prerequisite: QUAN 676 Statistical Analysis for Managers or an Introduction to Statistics course.

Master of Human Resources concentration in Human Resource Management

Program Coordinator: Mr. Robert Awkward
Program Advisor: Mr. Robert Awkward

The Master of Human Resources with a concentration in Human Resource Management is designed to provide qualified individuals from any undergraduate major with the conceptual, analytical, and operational knowledge needed to assume a position in human resource management. The program is based on an orientation which provides a proper balance of theoretical and practical knowledge as well as in-depth preparation in human resource management. Philosophically, the program assumes that excellence in human resource management requires an understanding of both the internal aspects of the modern profit or non-profit organization and the external environment in which it functions. To acquire this understanding, students are exposed to courses in the areas of management, accounting, finance, economics, and human resource administration. At the completion of the program, students are expected to possess the sophisticated analytical, verbal, and intellectual skills needed to forecast personnel needs, hire new employees, and create an environment which promotes maximum employee satisfaction and efficiency.

Admission Requirements

Applicants must have earned a baccalaureate degree from regionally accredited college or university in any major.

Students are evaluated primarily on the basis of the distribution of courses they have taken as undergraduate and, if applicable, courses taken in another graduate program, and on their undergraduate and graduate grades. An overall undergraduate quality point average of 3.00 on a 4.00 scale in a program acceptable to the admissions committee, including successful completion of business and economics courses taken as an undergraduate, is expected.

Students who do not meet these requirements may be offered opportunity to demonstrate their ability to do successful graduate work by:

 Taking two advisor-approved courses and earning a grade of B (3.00) or better in each course;

OR

 Taking either the Graduate Management Admissions Test, Graduate Record Examination, or the Miller Analogies Test and achieving a score in the 60th percentile or higher.

Evaluation of the materials submitted by the applicant for admission to the Master of Arts will begin as soon as all required documents have been received. Applicants may be admitted to the program for the Fall or Spring semesters, although courses may be taken during the Summer.

Program Requirements

The program consists of eleven (11) required courses. In addition, two (2) prerequisite undergraduate courses are required (may be waived by the Program Coordinator). Students with appropriate academic background may be permitted to waive the two foundation courses.

Waivers are generally not granted if the corresponding undergraduate course(s) were completed more than seven years prior to application. Waivers are not granted for non-academic prior learning, and are determined solely on the basis of the student's undergraduate or graduate record. All waivers require written approval by the program advisor.

Students are expected to be familiar with office/management level software.

Students may take courses in any sequence subject to the following general requirements:

- 1. Students must complete the two foundation courses early in their program as these are prerequisite courses to core courses and electives.
- Students must observe prerequisites. Courses taken without the proper prerequisites will not be applicable to the student's degree requirements unless written approval is obtained from the student's advisor.
- 3. MGMT 985 Seminar in Human Resource Management is the culminating course in the students program. Registration requires prior written permission from the Dean of Graduate Studies. Students will not be permitted to fulfill this requirement with a course transferred from another institution. The seminar can only be taken in the last semester of study. Exceptions, requiring written advisor approval, may be made for students taking an elective course over the summer.

Prerequisite Undergraduate Course Requirements (2):

ECON 610 Economic Analysis

MGMT 600 Foundations of Business

Human Resources Management Concentration Requirements:

Program Core Courses (10):

MGMT 900	Foundations of Human Resource Management
MGMT 904	Management and Leadership
MGMT 922	Employment Law
MGMT 934	Human Resource Information Systems
MGMT 946	Organizational Development and Change
MGMT 955	Compensation and Performance Management
MGMT 963	Employee Benefits
MGMT 969	Business Ethics
MGMT 972	Training and Development
MGMT 977	Managing Global Diversity in Organizations

Program Capstone Course (1):

MGMT 985 Seminar in Human Resources Management

COURSE DESCRIPTIONS

MGMT 900 Foundations of Human Resource Management

An overview of the major functional areas of human resources management. The student develops an understanding of the mission, role and major responsibilities of strategic human resources in achieving the objectives of the organization. The course covers the functional areas of human resource planning, recruitment and selection, training and development, performance appraisal, compensation and employee benefits government regulation compliance.

MGMT 904 Management and Leadership

An address of managerial and leadership styles and the dynamics of organizational behavior. Topics include: managerial effectiveness strategies, leadership styles, organizational structuring issues, interpersonal relationships, and the building and managing of teams (formerly Managerial Theory).

MGMT 922 Employment Law

An investigation of the legal perspective of employer/employee relationship in today's complex business environment. Most aspects of federal and state laws related to employment relationship at all stages of the employment process are covered in detail from both business and human resources viewpoints.

Prerequisite: MGMT 900 Foundations of Human Resource Management

MGMT 934 Human Resource Information Systems

An overview of human resource information systems (HRIS) focused on strategic drivers for HRIS, selection, planning, system design and change management. Students are introduced to technology terms and key concepts, as well as procedures for evaluating, implementing and managing technology solutions in a business enterprise. Students also consider related ethical issues and emerging trends.

Prerequisite: MGMT 900 Foundations of Human Resource Management.

MGMT 946 Organizational Development and Change

A focus on the management of planned change in organizations. Covering techniques for strategic implementation as well as new ideas and practices, the activities of the course will include development of organizational change through an action research project as well as practice through case study.

Prerequisites: MGMT 900 Foundations of Human Resource Management, MGMT 904 Management and Leadership

MGMT 955 Compensation and Performance Management

A comprehensive overview of compensation in the HR function whose goal is to assist students making compensation programs effective and competitive in a changing marketplace. Topics covered include: fundamentals of base pay, deferred compensation, executive compensation, job analysis, job evaluation, market analysis, salary ranges, legal and regulatory compliance, incentives, pay for performance, merit pay, performance management, appraisal methods (including errors in performance appraisals), salary surveys and total compensation. In addition, the course also explores the role of variable compensation, with a focus on using variable compensation to more effectively focus employee efforts and better align compensation costs with organizational performance. Note: Students who have taken 12.952 Performance Appraisal or 12.953 Compensation Administration may not receive credit for MGMT 955.

Prerequisite: MGMT 900 Foundations of Human Resource Management.

Master of Human Resources Concentration in Human Resource Management

MGMT 963 Employee Benefits

An exploration of the role of employer-provided benefits as a part of the modern human resources function. The class examines the history of employee benefits in the U.S., the increasing cost of benefits during the last 30 years, the legislative environment, how benefits are integrated as a part of the total compensation, and the emergence of outsourcing as a delivery mechanism. The class also examines retirement and savings plans as well as health and welfare plans. Topics covered are plan design, cost containment, funding, legal compliance, administration, share services, employee and manager self-service, and total benefit outsourcing.

Prerequisite: MGMT 900 Foundations of Human Resource Management.

MGMT 969 Business Ethics

An understanding of the ethical, social and political context of business organizations today. The course provides the understanding of ethical frameworks for approaching business problems in order to choose among alternative courses of action. This course emphasizes the application of ethical reasoning to real business and management situations, problems and decision-making. Readings, activities, guided discussion, case studies, and videos are the principal methods of learning. Theoretical ideas and concepts are integrated into the discussion of concrete issues throughout the course.

MGMT 972 Training and Development

A study of business performance improvement through training and development. Students conduct needs assessment to identify organizational and individual performance improvement opportunities. Students learn to analyze, design, develop, implement and evaluate training and development solutions.

Prerequisites: Admission into the M.H.R. program.

MGMT 977 Managing Global Diversity in Organizations

A framework for managing diversity in today's rapidly changing business environment. It examines the complex roles of language, culture, personality and cognitive processes to determine how these interact to maintain and magnify cultural differences and other dimensions of diversity in today's workplace and society. The course includes theories for managing diversity, cultural capacity, personal and organizational communications, recruitment and retention of a diverse/global workforce and public relations campaigns to attract a diverse customer base. Topics include: (1) understanding the business environment that is driving the need for multicultural competencies, including U.S. demographic change and globalization, development of policies, techniques and (2) theories behind best business practices for building and maintaining a diverse/global workplace.

Prerequisite: MGMT 900 Foundations of Human Resource Management

MGMT 985 Seminar in Human Resources Management

The final evaluation for M.A. in Human Resource Management students. Through a series of cases, students demonstrate competence in the area covered by the required program courses.

Prerequisites: Completion of all other degree requirements and permission of the Dean.

Master of Public Administration concentration in Public Administration

Program Coordinator: Dr. David Stender
Program Advisor: Dr. David Stender

The Master of Public Administration (M.P.A.) with a concentration in Public Administration stresses the practical skills and knowledge necessary for a career in the public sector. The program is designed for students presently serving in government and non-profit organizations, those involved in the private sector who are involved with and affected by governmental activities, and those who seek careers in government at the management level. The program provides a pragmatic approach which balances the theoretical with the practical. Students are exposed to the normative and empirical aspects of problem-solving, organizational management, budget and resource management, policymaking, and program administration. In this period on increased interdependency among the public, non-profit, and private sectors, the program is dedicated to the increased responsibilities and challenges confronting the public manager. The program provides the student with a concrete foundation for the acquisition of administrative expertise and tools essential for management at all levels of government and within non-profit service oriented organizations. After completing of the program, students are expected to be able to analyze problems, to develop solutions, and to acquire the advanced skills of written and oral analysis, presentation, and communication.

Admission Requirements

Applicants must have earned a baccalaureate degree from a regionally accredited college or university. The evaluation of a candidate is primarily based upon the applicant's quality point average which is used as an indicator of intellectual development and ability. Extracurricular activities, employment and non-employment experiences, career goals, and motivation for graduate work serve as additional admission criteria. An overall undergraduate quality point average of 3.00 on a 4.00 scale in a program acceptable to the admission committee is expected. Students who do not meet these requirements may be offered the opportunity to demonstrate their ability to do successful graduate work by:

1. Taking two advisor-approved graduate or undergraduate courses and earning a grade of B (3.00) or better in each course;

OR

 Taking either the Graduate Management Admissions Test, the Graduate Record Exam, or the Miller Analogies Test and achieving a score in the 60th percentile or higher.

In addition to a suitable QPA or possession of other indicators of academic success, admission will be granted only to persons with acceptable employment experience. Acceptable employment is usually a minimum of one year of full-time paid experience in the field and is usually verified by appropriate letters of recommendation. This requirement may be waived after a personal interview. Evaluations of the materials submitted by the applicant for admission to the Master of Arts will begin as soon as all required documents have been received. Applicants may be admitted to the program for the Fall or Spring semesters, although courses may be taken during the summer.

Program Requirements

This program consists of ten (10) courses which are divided into a core component (seven courses) and an elective component (three courses).

Students are expected to be familiar with office/management level software.

Students may take courses in any sequence subject to the following general requirements:

- PADM 983 Foundations of Public Administration serves as a foundation for the core and elective courses in the Public Administration program. Students are recommended to complete this course prior to taking other core courses.
- 2. Students must meet course prerequisites.
- 3. PADM 984 Seminar in Public Administration is the culminating course in the student's program and may not be taken before the final semester of the program. Exceptions, requiring advisor approval, may be made for students taking an elective course over the summer. Registration for the seminar requires prior written approval from the Dean of Graduate Studies. Students will not be able to fulfill this requirement with a course transferred from another institution.

Undergraduate Prerequisite (1):

QUAN 676 Statistical Analyses for Managers

<u>or</u>

MATH 117 Introduction to Statistics

Program Core Courses (7):

MGMT 904	Management and Leadership
PADM 901	Foundations of Public Administration
PADM 929	Techniques of Policy Analysis
PADM 937	Techniques of Public Budgeting and Resource Management
PADM 981	Personnel Management in the Public Sector
PADM 984	Seminar in Public Administration
QUAN 908	Quantitative Analysis for Administrators

Program Elective Courses (3):

Any three (3) courses with the written approval of the student's advisor. The following are suggested.

BUIS 909	Information Technology in Business
MGMT 955	Compensation and Performance Appraisal
PADM 911	Grantsmanship and Development
PADM 932	Managing Public Sector Projects
PADM 957	Risk Management and Fiscal Analysis

COURSE DESCRIPTIONS

BUIS 909 Information Technology in Business

An overview of the use of information technology solutions in a business organization. Business and managerial topics are included, such as opportunities for strategic and competitive advantage, increased operational efficiency, and information management using databases and data warehouses. Students are introduced to technology terms and key concepts, as well as procedures for evaluating, implementing and managing technology solutions in a business enterprise. Students also consider related ethical issues and emerging trends. Note: Students cannot receive credit for both this course and either BUIS 808 Microcomputer Applications in Business or BUIS 970 Technology Applications for Administrators.

MGMT 904 Management and Leadership

An addresses of managerial and leadership styles and the dynamics or organizational behavior. Topics include: managerial effectiveness strategies, leadership styles, organizational structuring issues, interpersonal relationships, and the building and managing of teams (formerly Managerial Theory).

MGMT 955 Compensation and Performance Management

A comprehensive overview of compensation in the HR function whose goal is to assist students making compensation programs effective and competitive in a changing marketplace. Topics covered include fundamentals of base pay, deferred compensation, executive compensation, job analysis, job evaluation, market analysis, salary ranges, legal and regulatory compliance, incentives, pay for performance, merit pay, performance management, appraisal methods (including errors in performance appraisals), salary surveys and total compensation. In addition, the course also explores the role of variable compensation, with a focus on using variable compensation to more effectively focus employee efforts and better align compensation costs with organizational performance. Note: Students who have taken 12.952 Performance Appraisal or 12.953 Compensation Administration may not receive credit for MGMT 955.

Prerequisite: MGMT 900 Foundations of Human Resource Management.

PADM 901 Foundations of Public Administration

Concerned with the nature and functioning of the public administrative process. The goals of the course are: (1) to develop and understanding of administrative behavior in the public sector, and (2) to understand how administrative behavior and structure affects the making, implementing, and managing of public programs and policies. The course serves as a survey of the fundamental concepts and issues of public administration and management. The course format consists of a case study approach. A substantial part of the weekly meetings are devoted to practical exercises and cases. Role playing, simulation, and case analysis are emphasized. Class participation is an essential and important part of the course.

PADM 929 Techniques of Policy Analysis

An introductory course in public policy analysis. In addition to surveying the politics of the policy-making process, the course develops a framework of principles for making policy decisions and examine general analytical methods useful for the decision making process. Topics include module survey techniques, benefit-cost analysis and the role of the analysis as an alternative to political power.

PADM 932 Managing Public Sector Projects

Designed to provide public and non-profit managers with the understanding and skills required to manage public projects in the contemporary environment of public-private partnerships, outsourcing, downsizing, and networking. The course provides a framework for the successful management of public projects at all levels of government and on any scale. Among the topics addressed are public sector regulations, contract negotiations, cost estimation, risk analysis, scheduling, monitoring, capital budgeting, procurement, and evaluation.

PADM 937 Techniques of Public Budgeting and Resource Management

Master of Public Administration Concentration in Public Administration

A study of public budgeting as a political process which attempts to plan, coordinate and control the allocation and use of the public resources under conditions of scarcity and uncertainty. While the course is generally designed to present a broad overview of the budgeting function as practiced in a variety of governmental settings, it is specifically designed to focus on budgeting as a management tool. Within this context the student is expected to develop practical knowledge of public budgeting systems and techniques.

PADM 957 Risk Management and Fiscal Analysis

An examination of risk analysis and its importance in helping to ensure that an organization has effective internal fiscal controls. The components of an effective internal control system such as the safeguarding of assets and adequate segregation of duties and responsibilities are covered. Pertinent laws and regulations are discussed to increase the practitioner's awareness of the current legal environment and its ramifications to an organization. The course also focuses on the importance of fiscal responsibility. Students learn to use financial statement analysis and the importance of performance measurement in the planning, execution, and reporting processes. Although this course focuses on the public sector, the concepts are applicable to the private sector, hospitals, educational institutions and non-profit organizations.

PADM 981 Personnel Management in the Public Sector

A major concern of any agency is the effective and efficient management of its personnel. To a large extent and organization is an entity consisting of individuals bound together through division goals. A necessary administrative tool of any manager is the ability to recruit, supervise and control members of an organization. This course focuses on membership, staffing, job classification, unionism, productivity, performance evaluation and personnel accountability. Case studies and simulation are used to emphasize theories and practice of personnel management.

PADM 984 Seminar in Public Administration

A focus on selected topics and cases in public administration. Students participate in discussion, analysis, and evaluation of contemporary issues of the administrative process and program management.

Prerequisite: Completion of all other degree requirements and permission of the Dean of Graduate Studies.

Master of Science

Concentration in Food and Nutrition

Specialization in Coordinated Program in Dietetics

Program Coordinator: Dr. Suzanne Neubauer
Program Advisor: Dr. Suzanne Neubauer

The Master of Science (M.S.) with a concentration in Food and Nutrition, specialization in Coordinated Program in Dietetics requires a core of advanced study that integrates nutrition science, biochemistry and research with applied nutrition and dietetics. The specialization in Coordinated Program in Dietetics (CPD) is designed for:

- Those who wish to fulfill both the Didactic Program in Dietetics (DPD)
 requirements and the supervised practice experience to become a registered
 dietitian.
- Those who have a current Accreditation Council for Education in Nutrition and Dietetics (ACEND) Verification Statement indicating completion of DPD requirements and wish to complete the supervised practice experience.

This concentration coordinates academic and supervised practice experiences with graduate work to meet the requirements for registration eligibility and membership in the Academy of Nutrition and Dietetics (AND).

Application Deadline

Applicants who have undergraduate prerequisites to complete that are only offered during the day should apply by **January 1**st for fall admission and **September 1**st for spring admission. Students who apply late may still begin their studies if seats are available in the day courses. Applications are accepted on a rolling basis.

Admission Requirements

Admission to the program is a competitive process. Individuals possessing a baccalaureate degree in any major from a regionally accredited institution are eligible to apply for admission. Applicants are evaluated based on numerous factors including previous college coursework; Graduate Record Examination scores; letters of recommendation; and personal statement. The personal statement describes the applicant's goals and reasons for applying to the graduate program.

- The applicant must have earned a baccalaureate degree from a regionally accredited college or university and must submit an official transcript from each college or university attended as an undergraduate or graduate student.
 - a. Applicants must have an overall undergraduate quality point average (QPA) of at least 3.00 on a 4.00 scale including acceptable grades in science course.
 - b. Courses in Human Anatomy and Physiology, Biochemistry, and Biostatistics must have been successfully completed within the last five years. Students may inquire about challenge exams.
 - c. Students who wish to fulfill the academic requirements (DPD) for becoming a Registered Dietitian and who have not completed prerequisite courses in their undergraduate curriculum are encouraged to apply. Your advisor will create a plan of study which integrates prerequisite courses and graduate

Food and Nutrition Coordinated Program in Dietetics

courses once designated prerequisite courses are completed. Students must earn a grade of B- (2.70) or better in each prerequisite course and an overall average of B (3.00). Students who earn a C- (1.70) or lower grade in undergraduate prerequisite courses are subject to dismissal from the program. A student will be dismissed when the student earns a C- (1.70) or lower grade in undergraduate prerequisite courses required for a graduate program.

- d. Students who do not fulfill the QPA requirement, but have a minimum cumulative grade point average of 2.75 on a 4.00 scale and satisfactory GRE scores will be considered for admission after they complete two prerequisite courses at Framingham State University. These courses must have prior approval and must be completed with a grade of B or better.
- 2. Applicants must submit official test score reports for the Graduate Record Examination (GRE) which includes verbal and quantitative reasoning and analytical writing. Preferred scores are: 150 verbal; 150 math, 4.0 writing.
- Applicants must provide two letters of recommendation from professors, supervisors, and/or colleagues, submitted on the Framingham State University Letter of Recommendation form and sent directly to the University by the recommender.
- 4. Applicants must submit a 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities and career plans.

The admissions committee will begin review of applicant materials upon receipt of all required documents. Complete applications include: application form, two current letters of recommendation, GRE test scores, 300-word personal statement, and all official undergraduate transcripts.

Academy of Nutrition and Dietetics (AND) Registration Information

Students seeking eligibility for the Academy of Nutrition and Dietetics (AND) examination for becoming a Registered Dietitian must complete academic requirements (Didactic Program in Dietetics), and a supervised practice experience in an accredited program. The Coordinated Program in Dietetics concentration fulfills both of these requirements.

Specialization in Coordinated Program in Dietetics

This specialization coordinates academic and supervised practice experience (practicum courses) to meet the requirements for registration eligibility and membership in the Academy of Nutrition and Dietetics (AND). Students are eligible to take the registration exam upon completion of the program. After acceptance to the MS program, students must apply for admission to the Coordinated Program. Students are accepted on a competitive basis in the spring semester for entrance into the program the following fall, once science and food prerequisite courses have been completed. The program follows a set course sequence for two years; other graduate courses may be integrated during this time. Students accepted to the Coordinated Program must meet program maintenance policies as stated in the Coordinated Program in Dietetics Manual. Students should see the Coordinated Program Director early to discuss their plan of study and to obtain application materials.

Program Requirements

The program requires a minimum of 15 courses: four core courses, four and one-half concentration courses, two elective courses, four and one-half practicum courses, together with undergraduate prerequisite courses required for students without appropriate academic backgrounds. Students are also required to register for Nutrition in the School Environment 0.5 course credit, an online course, in the summer preceding the School Nutrition Practicum. Registration fee applies.

Students who provide a current ACEND Verification Form indicating completion of the Didactic Program in Dietetics may have some core and/or concentration courses waived. Students are required to select additional graduate elective courses for a total of fifteen (15) to replace any waived courses. An oral comprehensive examination is required as the student's culminating experience. A laptop computer with Internet access and Windows XP or Vista or above is required in some graduate courses. Framingham State University offers a purchase program.

Undergraduate Prerequisite Courses (equivalent to the following FSU courses):

BIOL 130	Principles of Biology
BIOL 235	Principles of Human Physiology
BIOL 307	Principles of Microbiology
CHEM 107	Principles of Chemistry
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry
CHEM 301	Biochemistry
MATH 208	Biostatistics (not required for students having had an acceptable statistics course within the last five years)
NUTR 002	Orientation to Dietetics (a non-credit 200-hour work experience)
NUTR 205	Nutrition Science and Applications
NUTR 262	Food, Culture and Society (not required for students having had an equivalent foods course)
NUTR 364	Experimental Study of Food
NUTR 381	Medical Nutrition Therapy I
NUTR 478	Community Nutrition
PSYC 101	General Psychology <u>OR</u>
	SOCI 101 Introduction to Sociology <u>OR</u>
	ANTH 161 Cultural Anthropology

Note: Courses in Human Physiology and in Biochemistry must have been successfully completed within the last five years. Students may inquire about challenge exams; students have only one opportunity to take and pass a challenge examination.

Food and Nutrition Coordinated Program in Dietetics

Program Core Courses (4):

NUTR 874	Human Nutrition Science
NUTR 903	Advanced Nutrition and Metabolism
NUTR 911	Research Methods in Nutrition and Education
NUTR 980	Seminar in Food and Nutrition

Specialization Courses (4.5):

NUTR 827	Nutrition in the School Environment (0.5 course-credit)
NUTR 882	Management of Food and Nutrition Services
NUTR 883	Medical Nutrition Therapy II
NUTR 884	Foodservice Systems
NUTR 888	Seminar in Clinical Nutrition

Practicum Courses (4.5):

NUTR 885	Practicum in Foodservice Systems
NUTR 886	Experience in Community Nutrition
NUTR 887	School Nutrition Practicum (0.5 course-credit)
NUTR 889	Clinical Experience in Dietetics (2 course-credits)

Elective Courses (2):

Elective courses will not be offered each semester and may not be offered every year. Elective courses require written approval from the student's advisor.

CPSY 911	Orientation to Counseling Practice
FDSC 805	Food Analysis
FDSC 808	Food Chemistry
NUTR 879	Computer Applications in Nutrition <u>OR</u>
	NUTR 970 Computer Applications in Nutrition Education
NUTR 918	Nutrition Informatics
NUTR 920	Pediatric Nutrition
NUTR 924	Obesity and Weight Management
NUTR 940	Geriatric Nutrition: Diet, Functionality, and Disease
NUTR 960	Sports Nutrition
NUTR 973	Designing Nutrition Education Programs and Curricula
NUTR 978	Public Health Nutrition
NUTR 990	Directed Study in Food and Nutrition
NUTR 993	Independent Projects in Health and Wellness

Food and Nutrition Coordinated Program in Dietetics

COURSE DESCRIPTIONS

CPSY 911 Orientation to Counseling Practice

Designed to provide a laboratory-based experience focusing on the theoretical bases of the helping process. The development of basic counseling skills needed to work with individuals, couples, and families are explored. Listening and feedback skills, as well as the counselor-client relationship are covered. Evaluations are based on in-class role-playing, along with audio and video presentations. Counselor interpersonal style and theoretical orientation are explored.

FDSC 805 Food Analysis

A study of the fundamental principles of chemical food analysis with the laboratory work including both classical and recent sophisticated methods of analysis.

Prerequisites: Organic Chemistry I and either Biochemistry or Biochemistry I-Structures, Mechanisms and Analysis.

FDSC 808 Food Chemistry

The chemistry of food constituents and the chemical and biological changes occurring in foods during storing and processing. The approach is from a cellular and molecular level. Prerequisites: Organic Chemistry I and either Biochemistry or Biochemistry I-Structures, Mechanisms and Analysis.

NUTR 827 Nutrition in the School Environment

An update on current issues in child nutrition including a study of nutrition and health education curricula to promote coordinated school health in the Commonwealth's K-12 schools. Students develop nutrition education programs integrating the classroom and cafeteria including lesson plans to educate teachers, child nutrition program staff, students, and parents/care givers.

Prerequisite: NUTR 478 Community Nutrition; Coordinated Program in Dietetics students

NUTR 874 Human Nutrition Science

A study of the interrelationships and respective functions of nutrients, and the integration of nutrition, biochemistry, and human physiology. Emphasis is placed on research design in classic and current nutrition studies with respect to nutrition and health.

Prerequisites: Biochemistry, Principles of Human Physiology and Biostatistics.

NUTR 879 Computer Applications in Nutrition

A study of technology designed to enhance the efficiency and accuracy of practice in nutrition professions. Investigations include development, application and evaluation of emerging technologies used in nutrition practice.

Prerequisite: Introduction to Nutrition Practice

NUTR 882 Management of Food and Nutrition Services

The application of principles of management as they relate to the administration of human, physical and financial resources of food and nutrition services. Topics include management theory, personnel selection, training, evaluation organizational behavior, communication, governmental influences, labor management relations, marketing and budgeting. This course, designed for Food and Nutrition majors, utilizes the case study approach, and requires the development of a business plan. NOTE: Credit will not be given for both NUTR 882 Management of Food and Nutrition Services and MGMT 272 Management Principles.

concentration in Food and Nutrition Coordinated Program in Dietetics

NUTR 883 Medical Nutrition Therapy II

An integration of pathophysiology, biochemistry and nutrition concepts that form the basis for medical nutrition therapy in health care. Case study discussions and nutrition care plans are included. An additional three-hour lab is required for Coordinated Program in Dietetics students.

Prerequisites: NUTR 874 Human Nutrition Science and Introduction to Nutrition Practice.

NUTR 884 Foodservice Systems

A study of current trends and practices in the management of foodservice systems. Using a problem-based learning approach, the course includes the concepts of food safety, menu planning, procurement, quality food production, delivery systems, and financial management. Topics are augmented by a laboratory experience in a foodservice facility. Liability insurance is required.

Prerequisite: Experimental Study of Food.

NUTR 885 Practicum in Foodservice Systems

A concentrated continuous experience in an off-campus foodservice system in which concepts taught concurrently in NUTR 884 Foodservice Systems are utilized and applied. NUTR 882 Management of Food and Nutrition Services must be taken simultaneously. Prerequisite: Acceptance in the Coordinated Program in Dietetics.

NUTR 886 Experience in Community Nutrition

Field experience in community health settings coordinated with campus seminars. Students utilize their knowledge of normal and modified nutrition, skills in communications, recognition of socio-economic influences, and familiarity with community health agencies, resources and the legislative process. Education and motivation of individuals and groups and contributions to total health care in a community are explored.

Prerequisite: Acceptance in the Coordinated Program in Dietetics.

NUTR 887 School Nutrition Practicum

A supervised practice experience during which students implement nutrition and health education curricula integrating the classroom and cafeteria as a learning lab. Students develop staff training programs designed to improve the school nutrition environment in the school nutrition program. Lesson plans, designed to educate the whole child, are developed for teachers, students and parents/care givers and are implemented in the Commonwealth's K-12 schools. This course is supported by the Massachusetts Department of Elementary and Secondary Education, Office of Nutrition, Health and Safety Programs.

Prerequisites: NUTR 827 Nutrition in the School Environment, Coordinated Program in Dietetics students only.

NUTR 888 Seminar in Clinical Nutrition

A study of advanced topics in clinical nutrition, in particular, enteral, parenteral and critical care nutrition. Students present a seminar on a current topic in medical nutrition therapy. Current issues in health care as they relate to clinical nutrition management are also included.

Prerequisite: NUTR 883 Medical Nutrition Therapy

NUTR 889 Clinical Experience in Dietetics

Concentrated, supervised, continuous experience in various aspects of medical nutrition therapy. Students are placed in a cooperative medical facility where they work as a member of the health team to develop skills as an entry level dietitian. This course must be taken simultaneously with NUTR 888 Seminar in Clinical Nutrition or by permission of the instructor.

Prerequisite: Acceptance in the Coordinated Program in Dietetics.

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NUTR 903 Advanced Nutrition and Metabolism

A detailed investigation of macro and micronutrient metabolism during states of normal health and illness. This course expands understanding of the biological roles of nutrients in human metabolism using basic knowledge in physiology, biochemistry and molecular biology. Emphasis is directed towards current molecular and biochemical research findings and hypotheses. Students are expected to be familiar with the material covered in NUTR 874 Human Nutrition Science. Topics include carbohydrate, lipid and protein metabolism; energy homeostasis; 1-carbon metabolism; vitamin and mineral metabolism.

Prerequisites: NUTR 874 Human Nutrition Science or permission of the instructor.

NUTR 911 Research Methods in Nutrition and Education

A study of research techniques applicable to nutrition and education. Using a hands-on approach, students are acquainted with research hypotheses, designs and procedures, basic statistical concepts, and the format of a proposal. Knowledge of these concepts is demonstrated in the design of a research project.

Prerequisites: NUTR 874 Human Nutrition Science.

NUTR 918 Nutrition Informatics

A foundation for the synthesis of information, nutrition and technology. The focus is on the food and nutrition professionals' role in the selection, implementation, and maintenance of information management systems and other technology, such as the electronic medical record, security systems, and the Academy of Nutrition and Dietetics Evidence Analysis Library. Applications to foodservice operations, clinical nutrition management consumer health information systems, and other food and nutrition environments are addressed.

NUTR 920 Pediatric Nutrition

An overview of the clinical, medical, and psychosocial aspects of pediatric nutrition care. Includes a comprehensive discussion of nutrition and growth, and medical nutrition therapy for selected disease states.

Prerequisite: NUTR 883 Medical Nutrition Therapy.

NUTR 940 Geriatric Nutrition: Diet, Functionality and Disease

A study of the changes in nutrient requirements in the geriatric population and the impact of nutrition on age-related diseases. The causes and consequences of malnutrition in older adults and possible interventions are included. Functionality, management of chronic disease, and quality of life as important outcome measures in the treatment and care of the elderly are considered in the context of the nutrition care process and Centers for Medicare and Medicaid (CMS) regulations.

Prerequisite: Registered Dietitian or NUTR 883 Medical Nutrition Therapy

NUTR 960 Sports Nutrition

Review of nutrition principles as they apply to the physical performance of adults and students in grades K-12. Topics include: physiology of optimal fitness and weight maintenance; exercise physiology and improved athletic performance; nutritional needs of growing children; the use of supplements and other controversial practices. The role of educational and health institutions in promoting positive nutrition and fitness messages is emphasized. Sports nutrition concepts and nutrition assessment are presented in the context of Healthy People 2010 and the Health Curriculum Frameworks. May include on-site physical assessment laboratories.

Prerequisites: NUTR 874 Human Nutrition Science or B.S. in Nutrition, or both NUTR 910 Nutrition Science in the Classroom and NUED 914 Contemporary Nutrition Issues for Schools; a college-level physiology course.

NUTR 970 Computers in Nutrition Education

A study of technology designed to enhance the efficiency and accuracy of practice in nutrition professions. Investigations include development, application, and evaluation of emerging technologies related to nutrition and education. NOTE: Credit will not be given for this course and NUTR 879 Computer Applications in Nutrition.

Prerequisite: College-level general nutrition course within the past five years.

NUTR 973 Designing Nutrition Education Programs and Curricula

A study of the research related to the instructional design process for nutrition programs, curricula, and materials. Emphasis is on the application of scientific principles of teaching and learning. Investigation focuses on maximizing instructional technology to apply learning theory to teaching strategies. Students develop an instructional design to be implemented in NUTR 993 Independent Projects in Health and Wellness.

Prerequisite: Five (5) courses in the Food and Nutrition program and NUTR 879 Computer Applications in Nutrition or NUTR 970 Computers in Nutrition Education (either course may be taken concurrently).

NUTR 978 Public Health Nutrition

A study of nutrition concepts and the political/social realities that affect the nutritional health of populations. The development of nutrition policies at the local, state, and national levels are explored along with the delivery of community-based services. Topics may include: nutritional science in the lifecycle, sociocultural aspects of nutrition, food and nutrition programs, nutrition assessment of populations, food insecurity, health promotion guidelines, and food safety.

Prerequisites: NUTR 874 Human Nutrition Science or Bachelor's Degree in Nutrition or Health or either NUTR 910 Nutrition Science in the Classroom or NUTR 914 Contemporary Nutrition Issues for Schools.

NUTR 980 Seminar in Food and Nutrition

A critical review of the professional literature in food and nutrition and discussion of its application to practice. Students are required to present seminars on current topics. **Prerequisite**: Completion of five graduate courses.

NUTR 990 Directed Study in Food and Nutrition

An in-depth investigation of a specific topic in food and nutrition. May be combined with experience in a food and nutrition care setting. Topic must be approved by the faculty advisor.

Prerequisites: NUTR 874 Human Nutrition Science, NUTR 883 Medical Nutrition Therapy, and/or NUTR 978 Public Health Nutrition. Permission of Program Coordinator required.

NUTR 993 Independent Projects in Health and Wellness

The development of an in-depth nutrition education project or curriculum in accordance with nutrition education research and the instructional design developed in NUTR 973 Instructional Technologies in Nutrition Education. Projects integrate instructional technology based in learning theory and teaching practice, and match specific teaching strategies to learning needs. Projects are developed and evaluated.

Prerequisite: NUTR 973 Designing Nutrition Education Programs and Curricula.

Master of Science

Concentration in Food and Nutrition

Specialization in Food Science and Nutrition Science

Program Coordinator: Dr. Sarah Pilkenton

Program Advisor: Dr. Emmanouil Apostolidis

The Master of Science (M.S.) with a concentration in Food and Nutrition, specialization in Food Science and Nutrition Science offers a unique resource geared to advanced and traditional interest of the region's food and nutritional science-based economies. Academic programs that support applied food biotechnologies, food science technology and food engineering, as well as nutritional biochemistry, can be tailored to meet the thesis or non-thesis needs of graduate students.

As a natural extension of the University's century-long commitment to food and nutritional studies, the Master of Science program is dedicated to the vigorous technical support of food biotechnologies, industrial, and medical sectors of the Commonwealth that will shape the 21st century economy of the region.

Admission Requirements

Individuals possessing a baccalaureate degree from a regionally accredited college or university, which includes basic courses in biology, chemistry, and mathematics are eligible to apply for admission. Students are evaluated primarily on the basis of their undergraduate degree program, scores on the GRE General Examination, recommendations, and professional experience where it applies. Specific courses that students are expected to have as part of their undergraduate education, and prior to their making application, are Biology, General Chemistry I and II, and Organic Chemistry I and II (comparable to FSU courses).

An overall undergraduate grade point average (GPA) of 3.00 on a 4.00 scale in a program acceptable to the admissions committee, including acceptable grades in science and mathematics courses taken as an undergraduate is expected. Applicants must submit official test reports for the Graduate Record Examination (GRE) which includes verbal and quantitative reasoning and analytical writing. Preferred minimum scores are: 150 verbal; 150 math; 4.0 writing.

Students eligible to apply for admission, but not fulfilling the GPA requirement, and who have (1) a minimum GPA of 2.50 on a 4.00 scale, (2) an analytical writing score of at least 3.50 would be considered for admissions after completing two prerequisite graduate courses. Students must earn a grade of B- (2.70) of better in each prerequisite course, and an overall average of B (3.00). Proficiency examinations, when completed, must be passed with equivalent grades if the student is to receive official admission. Students who earn a grade less than B- in any prerequisite courses will ordinarily be withdrawn from the program.

Applicants whose files become complete during the regular academic year will have their applications reviewed as soon as required documents have been received. Applicants whose files become complete during the summer months have their files reviewed during the summer at the convenience and availability of the admissions committee faculty. Applicants for full-time study should have their files complete by February 1st for fall admission and by September 1st for spring and summer admissions in order to maximize access to prerequisite undergraduate courses.

Program Requirements

The program requires a minimum of ten (10) courses: four (4) core courses, five (5) concentration courses, and one (1) approved elective course; plus undergraduate prerequisite courses required for students without an appropriate academic background. Students may take courses in any sequence subject to the following general requirements:

- 1. Students must have completed all the undergraduate prerequisite courses before registering for core, concentration or elective courses;
- 2. NUTR 903 Nutritional Biochemistry must be repeated if passed with a grade lower than B- (2.70).
- 3. An oral comprehensive examination is required as the student's culminating experience.

Undergraduate Prerequisite Courses

BIOL 307	Principles of Microbiology
BIOL 272	Human Anatomy and Physiology I
BIOL 273	Human Anatomy and Physiology II (or BIOL 142 Introduction to Human Biology with special permission of program advisor)
CHEM 301	Biochemistry
FDSC 151	Principles of Food Science (not required for students having had an acceptable foods course)
MATH 208	Biostatistics (not required of students having had an acceptable statistics course)
MATH 219	Calculus I

NOTE: The prerequisite undergraduate courses in Human Anatomy and Physiology I & II, and Biochemistry, if taken elsewhere, must be equivalent to those offered at Framingham State University. Furthermore, these courses must have been successfully completed within the last five (5) years.

Program Core Courses (4):

CHEM 911	Research and Seminar in Food Science/Nutritional Biochemistry
CHEM 960	Thesis in Food Science/Nutritional Biochemistry $\underline{\mathbf{OR}}$
	CHEM 921 Laboratory Practicum
NUTR 874	Human Nutrition Science
NUTR 903	Advanced Nutrition and Metabolism

Specialization Courses (5)

CHEM 821	Instrumental Analysis (an elective may be substituted with approval of the program advisor)
FDSC 805	Food Analysis
FDSC 808	Food Chemistry
FDSC 813	Food Safety and Microbiology
FDSC 815	Food Engineering and Processing

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Elective Course (1)

An 800- or 900-level graduate elective course must be approved, in writing, by the student's advisor.

COURSE DESCRIPTIONS

FDSC 805 Food Analysis

A study of the fundamental principles of chemical food analysis with laboratory work including both classical and recent sophisticated methods of analysis. **Laboratory** (4 hours). Prerequisites: Organic Chemistry I and Biochemistry I, or permission of the instructor.

FDSC 808 Food Chemistry

The chemistry of food constituents and the chemical and biological changes occurring in foods during storing and processing. The approach is from a cellular and molecular level. **Laboratory (4 hours).**

Prerequisites: Organic Chemistry I and Biochemistry I, or permission of the instructor.

FDSC 813 Food Safety and Microbiology

A focus on the microorganisms involved in food production, food spoilage, and the transmission of diseases through foods. The effect of various methods of food preservation is evaluated in terms of public health, food spoilage, food quality and nutritional value of foods. **Laboratory (4 hours).**

Prerequisite: An undergraduate course in Microbiology or Permission of the instructor.

FDSC 815 Food Engineering and Processing

An integrated approach to food engineering principles and food processing techniques. Topics include thermodynamics, fluid flow and heat transfer, evaporation, refrigeration, psychrometry, drying, distillation and essential food processing methods that ensure attainment of food product wholesomeness. **Laboratory (4 hours).**

Prerequisite: Permission of the instructor.

CHEM 821 Instrumental Analysis

Principles and use of instrumental methods in analysis. Topics in electronics, electrochemistry, spectroscopy, flame photometry, mass spectrometry, NMR and Chromatography.

Prerequisites: Organic Chemistry I, Calculus I, and Principles of Physics I and II, or PHYS Introductory Physics.

CHEM 832 Biochemistry II

A continuation of Biochemistry I, which covers basic nucleotide chemistry. Informational biomolecules, nucleotide metabolism, cell signaling and regulatory mechanisms, molecular physiology, protein structure and catalysis, regulation of biochemical processes, and integrated metabolic systems are studied in-depth. Laboratory emphasizes enzyme isolation, molecular modeling, and analytical biotechnology.

Prerequisites: Organic Chemistry II and Biochemistry I.

FDSC 911 Research and Seminar in Food Science/Nutritional Biochemistry

Formulation of a research project, followed by execution of an experimental design, that culminates in a written research report of the results and an oral presentation.

Prerequisite: Permission of the instructor.

FDSC 921 Laboratory Practicum

A supervised laboratory investigation that gives students the opportunity to explore relevant topics in the food sciences.

Prerequisite: Permission of the instructor.

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concentration in Food Science and Nutrition Science

FDSC 960 Thesis in Food Science/Nutritional Biochemistry

An exploration of a current research problem dealing with food or nutrition science, technology, engineering, or biochemistry with experimental results presented as a written document according to Departmental guidelines.

Prerequisite: Permission of the instructor.

NUTR 874 Human Nutrition Science

A study of the interrelationships and respective functions of nutrients, and the integration of nutrition, biochemistry, and human physiology. Emphasis is placed on research design in classic and current nutrition studies with respect to nutrition and health.

Prerequisites: Biochemistry, Human Anatomy and Physiology I, and Biostatistics.

NUTR 903 Advanced Nutrition and Metabolism

A detailed investigation of macro and micronutrient metabolism during states of normal health and illness. This course expands understanding of the biological roles of nutrients in human metabolism using basic knowledge in physiology, biochemistry and molecular biology. Emphasis is directed towards current molecular and biochemical research findings and hypotheses. Students are expected to be familiar with the material covered in NUTR 874 Human Nutrition Science. Topics include carbohydrate, lipid and protein metabolism; energy homeostasis; 1-carbon metabolism; vitamin and mineral metabolism.

Prerequisites: NUTR 874 Human Nutrition Science or permission of the instructor.

NUTR 978 Public Health Nutrition

A study of nutrition concepts and the political/social realities that affect the nutritional health of populations. The development of nutrition policies at the local, state, and national levels are explored along with the delivery of community-based services. Topics may include: nutritional science in the lifecycle, sociocultural aspects of nutrition, food and nutrition programs, nutrition assessment of populations, food insecurity, health promotion guidelines, and food safety.

Prerequisites: NUTR 874 Human Nutrition Science or Bachelor's Degree in Nutrition or Health or either NUTR 910 Nutrition Science in the Classroom or NUTR 914 Contemporary Nutrition Issues for Schools.

Master of Science

Concentration in Food and Nutrition

Specialization in Nutrition Science and Informatics

Program Coordinator: Dr. Suzanne Neubauer
Program Advisor: Dr. Suzanne Neubauer

The Master of Science (M.S.) with a concentration in Food and Nutrition, specialization in Nutrition Science and Information requires a core of advanced study that integrates nutrition science, biochemistry and research with applied nutrition and dietetics. The specialization Nutrition Science and Informatics is designed for:

- the Registered Dietitian;
- those who have a current Accreditation Council for Education in Nutrition and Dietetics (ASCEND) Verification statement indicating completion of Didactic Program in Dietetics (DPD) requirements;
- those who wish to fulfill the academic requirements (DPD) for becoming a
 Registered Dietitian. (See "Academy of Nutrition and Dietetics (AND)
 Registration Information" concerning the supervised practice requirement.)

This specialization combines advanced study of nutrition science and nutrition informatics with the development of skills to incorporate emerging technologies and informatics in nutrition education and practice.

Application Deadline

Applicants who have undergraduate prerequisites to complete that are only offered through the Day School should apply by January 1st to be admitted for fall admission and by September 1st for spring admission. Students who apply later may still begin their studies if seats are available in the undergraduate prerequisites courses offer through the Day School. Applications are accepted on a rolling admission basis.

Admission Requirements

Admission to the program is a competitive process. Individuals possessing a baccalaureate degree from a regionally accredited institution are eligible to apply for admission. Applicants are evaluated based on numerous factors including previous college course work; Graduate Record Examination scores; letters of recommendation; and personal statement. The personal statement describes the applicant's goals and reasons for applying to the graduate program.

- 1. Applicants must have earned a baccalaureate degree from a regionally accredited college or university
 - Applicants are required to possess an overall undergraduate grade point average (GPA) of at least 3.00 on a 4.00 scale including acceptable grades in science courses.
 - b. Courses in Human Anatomy and Physiology, Biochemistry, and Biostatistics must have been successfully completed within the last five years. Students may inquire about challenge exams.
 - c. Students who wish to fulfill the academic requirements (DPD) for becoming a Registered Dietitian and who have not yet completed prerequisite courses in their undergraduate curriculum are encouraged to apply. Your advisor will create a plan of study which integrates prerequisite courses and graduate courses once designated prerequisite courses are completed. Students must earn a grade of B- (2.70) or better in each prerequisite course and an overall average of B (3.00).

- d. Students who do not fulfill the GPA requirement, but have a minimum GPA of 2.75 on a 4.00 scale and satisfactory GRE scores will be considered for admission after they complete two prerequisite courses at Framingham State University. These courses must have prior approval and must be completed with a grade of B or better.
- Applicants must submit official test score reports from the Graduate Record Exam General Test (GRE) which includes verbal and quantitative reasoning and analytical writing. Preferred minimum scores are: 150 verbal; 150 math; 4.0 writing.
- Applicants must provide two letters of recommendation from professors, supervisors, and/or colleagues, submitted on the Framingham State University Letter of Recommendation form and sent directly to the University by the recommender.
- Applicants must submit a 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities and career plans.

Academy of Nutrition and Dietetics Registration Information

Students seeking eligibility for the Academy of Nutrition and Dietetics (AND) examination for becoming a Registered Dietitian must complete the academic requirements (Didactic Program in Dietetics (DPD)) and a supervised practice experience in an accredited program. The Coordinated Program in Dietetics specialization fulfills both of these requirements. Framingham State University provides advising by the DPD Director for those students who elect to apply to a Dietetic Internship.

Program Requirements

The program requires a minimum of ten (10) courses: four (4) core courses and six (6) concentration and elective courses, together with undergraduate prerequisite courses required for students without appropriate academic backgrounds. A minimum of ten (10) courses is required for graduation.

Students who provide a current ACEND Verification Form indicating completion of the Didactic Program in Dietetics may have some program core and/or concentration courses waived. Students are required to select additional graduate elective courses for a total of ten (10) to replace any waived courses. Those who wish to fulfill the academic requirements (DPD) for becoming a Registered Dietitian should consult the undergraduate prerequisite courses listed under the Coordinated Program in Dietetics specialization.

Students are required to have a laptop computer with WindowsXP or Vista (or above) as most graduate courses require laptops for use in the classroom.

An oral comprehensive examination is required as the student's culminating experience.

Undergraduate Prerequisite Courses

MATH 208 Biostatistics (not required for students having had an acceptable statistics course within the last five years)

Undergraduate courses in Human Physiology and in Biochemistry must have been successfully completed within the last five years. Students may inquire about challenge exams; students have only one opportunity to take and pass a challenge examination.

Registered Dietitians have no other undergraduate course prerequisites. Students who provide a current ACEND Verification Form indicating completion of the Didactic Program in Dietetics may have some program core and/or concentration courses waived. Students are required to select additional graduate elective courses to replace any of the waived courses. Those who wish to fulfill the academic requirements (DPD) for becoming a Registered Dietitian should consult the undergraduate prerequisite courses listed under the Coordinated Program in Dietetics specialization.

Concentration Core Courses (4)

NUTR 874	Human Nutrition Science*
NUTR 903	Advanced Nutrition and Metabolism
NUTR 911	Research Methods in Nutrition and Education
NUTR 980	Seminar in Food and Nutrition

Specialization Courses (4)

NUTR 879	Computer Application in Nutrition* OR
	NUED 970 Computers in Nutrition Education
NUTR 918	Nutrition Informatics
NUTR 973	Designing Nutrition Education Programs and Curricula
NUTR 993	Independent Projects in Health and Wellness

Specialization Electives (2)

Elective courses will not be offered each semester and may not be offered every year. Elective courses require written approval from the student's advisor.

Choose two (2) elective, one (1) of which must be a nutrition course:

CPSY 911	Orientation to Counseling Practice
FDSC 805	Food Analysis
FDSC 808	Food Chemistry
NUTR 882	Management of Food and Nutrition Services*
NUTR 883	Medical Nutrition Therapy II*
NUTR 884	Foodservice Systems*
NUTR 920	Pediatric Nutrition
NUTR 940	Geriatric Nutrition: Diet, Functionality and Disease
NUTR 960	Sports Nutrition
NUTR 978	Public Health Nutrition
NUTR 990	Directed Study in Food and Nutrition

^{*}Denotes course required to meet the Didactic Program in Dietetics

Academy of Nutrition and Dietetics Registration Information

Students seeking eligibility for the Academy of Nutrition and Dietetics (AND) examination for becoming a Registered Dietitian must complete the academic requirements for the Didactic Program in Dietetics (DPD), including a supervised practice experience in an accredited program. The Coordinated Program in Dietetics specialization fulfills both of these requirements. Framingham State University provides advising by the DPD Director for those students who elect to apply to a Dietetic Internship.

CHEM 805 Food Analysis

A study of the fundamental principles of chemical food analysis with the laboratory work including both classical and recent sophisticated methods of analysis.

Prerequisites: Organic Chemistry I and either Biochemistry or Biochemistry I-Structures, Mechanisms and Analysis.

CHEM 808 Food Chemistry

The chemistry of food constituents and the chemical and biological changes occurring in foods during storing and processing. The approach is from a cellular and molecular level. Prerequisites: Organic Chemistry I and either Biochemistry or Biochemistry I-Structures,

Mechanisms and Analysis.

CPSY 911 Orientation to Counseling Practice

Designed to provide a laboratory-based experience focusing on the theoretical bases of the helping process. The development of basic counseling skills needed to work with individuals, couples, and families are explored. Listening and feedback skills, as well as the counselor-client relationship are covered. Evaluations are based on in-class role-playing, along with audio and video presentations. Counselor interpersonal style and theoretical orientation are explored.

NUTR 874 Human Nutrition Science*

A study of the interrelationships and respective functions of nutrients, and the integration of nutrition, biochemistry, and human physiology. Emphasis is placed on research design in classic and current nutrition studies with respect to nutrition and health.

Prerequisites: Undergraduate courses in Biochemistry, Human Physiology, Biostatistics.

NUTR 879 Computer Application in Nutrition

A study of technology designed to enhance the efficiency and accuracy of practice in nutrition professions. Investigations include development, application and evaluation of emerging technologies used in nutrition practice.

Prerequisite: Introduction to Nutrition Practice

NUTR 882 Management of Food and Nutrition Services*

The application of principles of management as they relate to the administration of human, physical and financial resources of food and nutrition services. Topics include management theory, personnel selection, training, evaluation organizational behavior, communication, governmental influences, labor management relations, marketing and budgeting. This course, designed for Food and Nutrition majors, utilizes the case study approach, and requires the development of a business plan. NOTE: Credit will not be given for both NUTR 882 Management of Food and Nutrition Services and a business course in Management Principles.

NUTR 883 Medical Nutrition Therapy II

An integration of pathophysiology, biochemistry and nutrition concepts that form the basis for medical nutrition therapy in health care. Case study discussions and nutrition care plans are included. An additional three-hour lab is required for Coordinated Program in Dietetics students.

Prerequisites: Medical Nutrition Therapy I and NUTR 874 Human Nutrition Science.

NUTR 884 Foodservice Systems

A study of current trends and practices in the management of foodservice systems. Using a problem-based learning approach, the course includes the concepts of food safety, menu planning, procurement, quality food production, delivery systems, and financial management. Topics are augmented by a laboratory experience in a foodservice facility. Liability insurance is required.

Prerequisite: Experimental Study of Food.

NUTR 903 Advanced Nutrition and Metabolism

Master of Science concentration in Food and Nutrition: Specialization in Nutrition Science and Informatics

A detailed investigation of macro and micronutrient metabolism during states of normal health and illness. This course expands understanding of the biological roles of nutrients in human metabolism using basic knowledge in physiology, biochemistry and molecular biology. Emphasis is directed towards current molecular and biochemical research findings and hypotheses. Students are expected to be familiar with the material covered in NUTR 874 Human Nutrition Science. Topics include carbohydrate, lipid and protein metabolism; energy homeostasis; 1-carbon metabolism; vitamin and mineral metabolism.

Prerequisites: NUTR 874 Human Nutrition Science or permission of the instructor.

NUTR 909 Directed Study in Food and Nutrition

An in-depth investigation of a specific topic in food and nutrition. May be combined with experience in a food and nutrition care setting. Topic must be approved by the faculty advisor.

Prerequisites: NUTR 874 Human Nutrition Science, NUTR 883 Medical Nutrition Therapy II and/or NUTR 978 Public Health Nutrition.

NUTR 911 Research Methods in Nutrition and Education

A study of research techniques applicable to nutrition and education. Using a hands-on approach, students are acquainted with research hypotheses, designs and procedures, basic statistical concepts, and the format of a proposal. Knowledge of these concepts is demonstrated in the design of a research project.

Prerequisites: NUTR 874 Human Nutrition Science.

NUTR 918 Nutrition Informatics

A foundation for the synthesis of information, nutrition and technology. The focus is on the food and nutrition professionals' role in the selection, implementation, and maintenance of information management systems and other technology, such as the electronic medical record, security systems, and the Academy of Nutrition and Dietetics Evidence Analysis Library. Applications to foodservice operations, clinical nutrition management consumer health information systems, and other food and nutrition environments are addressed.

NUTR 920 Pediatric Nutrition

An overview of the clinical, medical, and psychosocial aspects of pediatric nutrition care. Includes a comprehensive discussion of nutrition and growth, and medical nutrition therapy for selected disease states.

Prerequisite: NUTR 883 Medical Nutrition Therapy II.

NUTR 940 Geriatric Nutrition: Diet, Functionality, and Disease

An overview of the physiological and socioeconomic aspects of aging, and their impact on nutrition on age-related diseases. The causes and consequences of malnutrition in older adults and possible interventions are included. Functionality, management of chronic disease, and quality of life as important outcome measures in the treatment and care process and Centers for Medicare and Medicaid (CMS) regulations.

Prerequisite: Registered Dietitian or NUTR 883 Medical Nutrition Therapy II.

NUTR 960 Sports Nutrition

Review of nutrition principles as they apply to the physical performance of adults and students in grades K-12. Topics include: physiology of optimal fitness and weight maintenance; exercise physiology and improved athletic performance; nutritional needs of growing children; the use of supplements and other controversial practices. The role of educational and health institutions in promoting positive nutrition and fitness messages is emphasized. Sports nutrition concepts and nutrition assessment are presented in the context of Healthy People 2010 and the Health Curriculum Frameworks. May include on-site physical assessment laboratories.

Prerequisites: NUTR 874 Human Nutrition Science or B.S. in Nutrition, or both NUED 910 Nutrition Science in the Classroom and NUED 914 Contemporary Nutrition Issues for Schools; a college-level physiology course.

Master of Science concentration in Food and Nutrition: Specialization in Nutrition Science and Informatics

A study of technology designed to enhance the efficiency and accuracy of practice in nutrition professions. Investigations include development, application, and evaluation of emerging technologies related to nutrition and education. NOTE: Credit will not be given for this course and NUTR 879 Computer Applications in Nutrition.

Prerequisite: College-level general nutrition course within the past five years.

NUTR 973 Designing Nutrition Education Programs and Curricula

A study of the research related to the instructional design process for nutrition programs, curricula, and materials. Emphasis is on the application of scientific principles of teaching and learning. Investigation focuses on maximizing instructional technology to apply learning theory to teaching strategies. Students develop an instructional design to be implemented in NUTR 993 Independent Projects in Health and Wellness.

Prerequisite: Five (5) courses in the Food and Nutrition program and NUTR 879 Computer Applications in Nutrition or NUTR 970 Computers in Nutrition Education (either course may be taken concurrently).

NUTR 978 Public Health Nutrition

A study of nutrition concepts and the political/social realities that affect the nutritional health of populations. The development of nutrition policies at the local, state, and national levels are explored along with the delivery of community-based services. Topics may include: nutritional science in the lifecycle, sociocultural aspects of nutrition, food and nutrition programs, nutrition assessment of populations, food insecurity, health promotion guidelines, and food safety.

Prerequisites: NUTR 874 Human Nutrition Science or Bachelor's Degree in Nutrition or Health or either NUTR 910 Nutrition Science in the Classroom or NUTR 914 Contemporary Nutrition Issues for Schools.

NUTR 980 Seminar in Food and Nutrition

A critical review of the professional literature in food and nutrition and discussion of its application to practice. Students are required to present seminars on current topics. **Prerequisite**: Completion of five graduate courses.

NUTR 990 Directed Study in Food and Nutrition

An in-depth investigation of a specific topic in food and nutrition. May be combined with experience in a food and nutrition care setting. Topic must be approved by the faculty advisor.

Prerequisites: NUTR 874 Human Nutrition Science, NUTR 883 Medical Nutrition Therapy II, and/or NUTR 978 Public Health Nutrition.

NUTR 993 Independent Projects in Health and Wellness

The development of an in-depth nutrition education project or curriculum in accordance with nutrition education research and the instructional design developed in NUTR 973 Instructional Technologies in Nutrition Education. Projects integrate instructional technology based in learning theory and teaching practice, and match specific teaching strategies to learning needs. Projects are developed and evaluated.

Prerequisite: NUTR 973 Designing Nutrition Education Programs and Curricula.

Master of Science Concentration in Merchandising

Program Coordinator: Dr. Irene Foster
Program Advisors: Dr. Irene Foster
Dr. Hae Won Ju

The Master of Science (M.S.) with a concentration in Merchandising provides specialization for retail managers, merchandisers, fashion designers, educators, and those interested in the industry. The program is intended for professionals who area employed in the field and need to enhance their theory knowledge and practical skills in specific areas relevant to their present position or future responsibilities, or seek beginning steps to a career in academia.

Application Deadline

Admissions is on a rolling basis; however, individuals seeking admission for the fall semester should have a completed application on file by July 1st or for the spring semester by December 1st. Applications received or completed after these dates cannot be guaranteed timely matriculation.

Admission Requirements

Individuals possessing a baccalaureate degree in any major from a regionally accredited institution are eligible to apply for admission to the Master's program. Applicants are evaluated based on numerous factors including previous college coursework; Graduate Record Examination scores; letters of recommendation; and personal statement. The personal statement describes the applicant's goals and reasons for applying to the graduate program.

- The applicant must have earned a baccalaureate degree from a regionally accredited college or university and must submit an official transcript from each college or university attended as an undergraduate or graduate student.
 - a. Applicants must have an overall undergraduate quality point average (QPA) of at least 2.70 on a 4.00 scale.
 - Applicants must have a competitive Graduate Record Examination (GRE) score.
- Applicants must submit official test score reports for the Graduate Record Examination (GRE) which includes verbal and quantitative reasoning and analytical writing.
- Applicants must provide two letters of recommendation from professors, supervisors, and/or colleagues, submitted on the Framingham State University Letter of Recommendation form and sent directly to the University by the recommender.
- Applicants must submit a typed, 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities and career plans.

Master of Science concentration in Merchandising

Program Requirements

The program requires a total of 11 course-credits: five (5) core course-credits, four (4) "choose" elective course-credits, and one capstone experience as either a two (2) semester sequence thesis (one course-credit each) or a two (2) semester sequence practicum (one course-credit each). Some students may also be required to complete undergraduate prerequisite courses as required for those without appropriate academic backgrounds.

Undergraduate Prerequisite Courses (equivalent to the following FSU courses):

MATH 117 Introduction to Statistics

FASH 646 Fashion Merchandising: Process and Practice*

*If applicant has had undergraduate course in merchandising and retailing, or experience in the field, this prerequisite course may be waived.

Program Core Courses (5):

FASH 916 Fashion and Retail Theory

FASH 927 Research Methods in Merchandising

FASH 936 Retailing and Consumerism

FASH 947 Global Market: Dynamics of Retailing

FASH 980 Retail Strategies and Merchandising Management

Required Elective Courses (4) – Choose four (4) from:

All listed Elective courses will not be offered each semester. Please consult with your program advisor regarding when electives are scheduled.

FASH 933 Social Responsibility, Sustainability, and Ethics in

Merchandising

FASH 943 Managerial Strategies for Retailers

FASH 952 Retail Site, Location, and Analysis

FASH 956 Digital Retailing

FASH 961 Promotional Strategies in Merchandising

FASH 972 Product Development and Analysis

Capstone Experience (2):

FASH 985 Thesis in Merchandising I and

FASH 986 Thesis in Merchandising II

OR

FASH 995 Practicum in Merchandising I and

FASH 996 Practicum in Merchandising II

COURSE DESCRIPTIONS

FASH 646 Fashion Merchandising: Process and Practice

An overview of the flow of the apparel and home furnishings industry as traced from design inspiration to retail customer. Industry resources related to product manufacturing and innovation are presented. Students explore the interrelationship of fibers, yarns, fabric structures, and finishes on textile products to develop an understanding of product differentiation. The effect of consumer issues on industry regulations, design trends, and technological advancements are discussed. Course may be waived for industry experience or collegiate coursework.

Prerequisite: Acceptance into the Master of Science, concentration in Merchandising.

FASH 916 Fashion and Retail Theory

A study of theories related to the fashion industry and how it operates in modern society. Changes in consumer demand for retail merchandise are analyzed using economic and fashion diffusion theories. Retail strategies in administrative management, merchandise management, and store management are explored. Topics include retail communication, channels of operation, supply chain management, and customer relations programs. Prerequisite: FASH 646 Fashion Merchandising: Process and Practice

FASH 927 Research Methods in Merchandising

A study of concepts, constructs, models, and theories related to the retail industry. Theory, practice, and application of the research process are analyzed. Topics include the preparation of literature reviews, conducting field research, and data presentation techniques. Emphasis is placed on research instrument development.

Prerequisite: FASH 646 Fashion Merchandising: Process and Practice.

FASH 933 Social Responsibility, Sustainability, and Ethics in Merchandising

A study of accountability of the retail industry with regards to society. Students learn how retailers organize their businesses for social responsibility internally, collaboratively, and strategically. Influences on socially responsible decisions and policy for retailers are discussed. The topics include ethics, laws, working conditions, and company policies.

Prerequisites: FASH 916 Fashion and Retail Theory or FASH 927 Research Methods in Merchandising.

FASH 936 Retailing and Consumerism

A study of consumer behavior and the effects on the retail environment. Understanding the consumer has become vital to retail success. The consumer is examined in relation to demographic, psychographic, and lifestyle segmentation. Theories from diverse academic disciplines are used to examine the consumer's attitudes, motivations, and desires. Topics include self-concept, shopping patterns, product meaning, and brand congruence. Prerequisite: FASH 916 Fashion and Retail Theory.

FASH 943 Managerial Strategies for Retailers

A study of motivations, opportunities, and leadership development with regards to the retail industry. Emphasis will be placed on students' positions and aspirations within the industry. The topics include problem-solving, relationship building, management, and career development.

Prerequisites: FASH 916 Fashion and Retail Theory or FASH 927 Research Methods in Merchandising.

FASH 947 Global Markets: Dynamics of Retailing

A study of the global interdependence of the retail industry. The industrial, social, and economic conditions in the major manufacturing nations are explored in relation to global product production. Factors such as sourcing, import/export of products, international trade regulations, and cultural business practices are examined. Emphasis is placed on the production of textiles and consumer goods for the US retail industry.

Prerequisite: FASH 927 Research Methods in Merchandising.

Master of Science concentration in Merchandising

FASH 952 Retail Site: Location and Analysis

A study of geographic location theories used by merchandisers, buyers, and retailers. Concepts, methods, and techniques of spatial distribution, spatial function, and spatial relationships are emphasized. Students will use Geographic Information Systems (GIS) to analyze possible retail or manufacturing locations in relationship to target market.

Prerequisites: FASH 916 Fashion and Retail Theory or FASH 927 Research Methods in Merchandising.

FASH 956 Digital Retailing

A study of emerging technology-driven trends in retailing and fashion merchandising. Emphasis will be placed on analysis and application of digital technologies as it influences sales, management, and communication. Topics such as digital retail channel management, digital information exchange, social marketing, and digital retail technologies are discussed. Prerequisites: FASH 916 Fashion and Retail Theory or FASH 927 Research Methods in Merchandising.

FASH 961 Promotional Strategies in Merchandising

A study of promotional strategies related to fashion merchandising. Theory and application of promotional concepts are discussed. Topics include advertising appeals, sales promotion, technology in promotion, public relations, selection of media, media planning, and evaluation of media. Factors such as organizational philosophy, store image and budgeting are considered.

Prerequisites: FASH 916 Fashion and Retail Theory or FASH 927 Research Methods in Merchandising.

FASH 972 Product Development and Analysis

A study of criteria and strategies necessary to design and produce a competitively priced product. Students will learn problem-solving and decision-making techniques used by product managers, project managers, and team leaders. Issues such as identifying customer needs, designing for manufacturing, prototyping, producing the design, and bringing the product to the consumer are discussed.

Prerequisites: FASH 916 Fashion and Retail Theory or FASH 927 Research Methods in Merchandising.

FASH 980 Retail Strategies and Merchandise Management

A study of the current practices in constructing a formal business plan. A well researched business plan is required for the acquisition of funding for a new business or expansion of a current retail enterprise. A buying plan is developed utilizing both unit and dollar planning techniques. Topics include Competitive Positioning Strategy, Geographic Information Systems, Open-to-Buy, and Budget Planning Methods.

Prerequisite: FASH936 Retailing and Consumerism, FASH 947 Global Market: Dynamics of Retailing, and Permission of Instructor.

FASH 985 Thesis in Merchandising I

Beginning work of a formal researched paper presenting the results of study submitted in partial fulfillment of the requirements for this program. The process is under the guidance of a graduate faculty and requires extensive scholarship.

Prerequisites: Completion of all core and elective courses and Permission of Program Advisor.

FASH 986 Thesis in Merchandising II

A continuation of the formal researched paper presenting the results of study submitted in partial fulfillment of the requirements for this program. The process is under the guidance of a graduate faculty and requires extensive scholarship. An oral comprehensive examination completes the student's culminating experience

Prerequisites: FASH 985 Thesis in Merchandising I and Permission of Program Advisor.

Master of Science concentration in Merchandising

FASH 995 Practicum in Merchandising I

A supervised industry-based learning experience at the managerial level. Students approach this position with a directed plan of study using what they have learned in the program. A minimum of 150 hours is required.

Prerequisites: Completion of all core and elective courses and Permission of Program Advisor.

FASH 996 Practicum in Merchandising II

A continuation or different supervised industry-based learning experience at the managerial level. Students gain further knowledge and experience. An additional minimum 150 hours is required.

Prerequisite: FASH 995 Practicum in Merchandising I and Permission of Program Advisor.

Master of Science in Nursing Concentration in Nursing Education

Program Coordinator: Dr. Cynthia Bechtel
Program Advisor: Dr. Cynthia Bechtel

The Master of Science in Nursing (M.S.N.) with a concentration in Nursing Education is designed for graduates with a Bachelor of Science in Nursing who wish to expand their careers into education or leadership. All courses are offered in hybrid/blended learning format, combining online with traditional on campus classroom experiences. The program prepares nurses with a strong theoretical foundation in research, nursing and related theories, healthcare policy, ethics, cultural competency, and informatics/technology as well as practice expertise as a nurse educator or nurse leader.

The master's degree in nursing at Framingham State University is accredited by the Commission on Collegiate Nursing Education (CCNE), (http://www.aacn.nche.edu/ccne-accreditation).

Admission Requirements

Note: Applications are accepted only for enrollment in the fall semester every year. The following admission and degree requirements will be effective for Fall 2013 MSN students.

- 1. Applicants must have a current unrestricted Massachusetts RN license.
- 2. Applicants must have earned a baccalaureate of science in nursing (BSN) degree from a regionally accredited college or university which is nationally accredited by the Commission on Collegiate Nursing Education (CCNE), the Accreditation Commission for Education in Nursing (ACEN), and/or the National League for Nursing Commission for Nursing Education Accreditation (CNEA); and must submit an official transcript from each college or university attended as an undergraduate or graduate student.
- Applicants are required to possess an overall undergraduate grade point average (QPA) or at least 3.00 on a 4.00 scale, and a minimum of a 3.25 QPA in undergraduate nursing courses.
- 4. Applicants who do not meet the above criteria for undergraduate QPA may be asked to take the Miller Analogies Test.
- 5. Applicants must have completed an undergraduate, introductory course in statistics with a minimum grade of C (2.00 on a 4.00 scale).
- Applicants must have a personal interview with the Nursing Chairperson or Graduate Program Coordinator.
- 7. Applicants must provide two letters of recommendation from nurses with an MSN who can attest to the applicant's ability to succeed in a master's program, submitted on the Framingham State University Letter of Recommendation form and sent directly to the University by the recommender.
- Applicants must submit a typed, 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities and career plans.

Master of Science in Nursing Concentrations in Education and Leadership

Courses before Admission and Transfer Credit

Students may take up to three (3) Framingham State University Graduate Certificate in Nursing Education courses before being formally admitted into the program. All three of the certificate courses will be applied toward the MSN in the nursing education concentration with a minimum grade of B (3.00 on a 4.00 scale). Other coursework will not generally be accepted for transfer credit.

Program Requirements

This program consists of ten (10) course-credits or 40 semester hours. Students take a Common Core of six (6) courses, and then select a four (4) course concentration in either Nursing Education or Nursing Leadership. A thesis, an evidence-based research project/paper, will be completed as part of the requirements for the Common Core courses.

Common Core (6)

NURC 905	Health and Education Resources and Policies
NURC 915	Advanced Technology and Nursing Informatics
NURC 925	Ethical, Social and Cultural Competencies
NURC 935	Essential Preparation for Advanced Nursing Role
NURC 971	Nursing Theory and Research I
NURC 972	Nursing Theory and Research II

Nursing Education Concentration (4)

NURE 941	Curriculum Design and Evaluation
NURE 951	Course Development and Implementation
NURE 981	Advanced Teaching Methods
NURE 991	Application of Technology to Education

COURSE DESCRIPTIONS

NURC 905 Health and Education Resources and Policies

An exploration of the state of nursing today, as well as the role of the nurse leader and nurse educator in policy and politics within government, workplace, organizations and community in determining policies and effectively utilizing resources to improve the culture of safety, quality care, and the working environment in practice and educational settings. The role of the nurse leader and nurse educator in healthcare delivery and financing is examined.

NURC 915 Advanced Technology and Nursing Informatics

A foundation for the synthesis of technology and informatics into advanced nursing roles. The focus is on the computer competencies, informatics competencies, informational literacy and technology required for the nurse leader and nurse educator. Evidence-based practice is explored to support the utilization of technology within the confines of system resources to meet identified patient and learner needs.

NURC 925 Ethical, Social and Cultural Competencies

An investigation of the ethical, social and cultural competencies necessary for decision making in evidence-based practice by nurses in advanced roles. Principles of ethics, moral development and diversity are explored in order to obtain the knowledge and skills to provide individualized care and protect the personal integrity of patients with diverse health, social, economic and cultural issues.

NURC 935 Essential Preparation for Advanced Nursing Role

An examination of the knowledge and skills required for direct care practice for the nurse in an advanced practice role. Building upon knowledge acquired at the baccalaureate level, students focus on three main areas: pathophysiology, health assessment, and pharmacology.

NURC 971 Nursing Theory and Research I

A focus on the utilization of nursing related theories and the research process to promote evidence-based change in nursing practice and education settings. Critical thinking is used to evaluate nursing research studies. Students incorporate previously learned material on policy, social, cultural, ethical and technological issues into a clinical, health systems and outcomes, and/or nursing education research proposal.

Prerequisites: NURC 905 Health and Education Resources and Policies, NURC 915 Advanced Technology and Nursing Informatics, NURC 925 Ethical, Social and Cultural Competencies.

NURC 972 Nursing Theory and Research II

The application of theory and the research process focusing on implementation and evaluation to enhance health and healthcare. Students conduct an evidence-based project related to topics such as safety, quality of care, systems, ethics, healthy lifestyles, health promotion/prevention of illness and/or teaching strategies in academic and practice settings. Students provide evidence for developing guidelines to advance nursing practice as nurse educators and leaders.

Prerequisite: NURC971Nursing Theory and Research I.

NURE 941 Curriculum Design and Evaluation

An exploration of the application of critical thinking in the design of a nursing curriculum. This course investigates mission, philosophy, conceptual terms, program outcomes, and program evaluation in order to prepare students for the advanced role of a nurse educator. The role of a nurse educator in academic and service areas is explored.

NURE 951 Course Development and Implementation

An investigation of the principles of course development; teaching strategies, including the use of technology; and classroom and clinical evaluation. Ethical and legal issues are explored in relation to nursing education. NOTE: This course can be taken concurrently with NURE 941 Curriculum Design and Evaluation.

Prerequisite: NURE 941Curriculum Design and Evaluation.

Master of Science in Nursing Concentrations in Education and Leadership

NURE 981 Advanced Teaching Methods (Practicum I)

The application of curriculum design, evaluation, course development, and implementation in a teaching practicum in classroom and clinical settings with a nurse educator/preceptor and in seminars with faculty.

Prerequisites: NURE 951 Course Development and Implementation.

NURE 991 Application of Technology to Education (Practicum II)

A practicum to apply current technology to classroom and clinical nursing education to enhance communication, ethical decision-making and critical thinking. Allocation of education resources to meet diverse learning styles, achieve learning objectives and advance evidence-based nursing practice are explored.

Prerequisites: NURC 905 Health Education Resources and Policies, NURC 915 Advanced Technology and Nursing Informatics.

Master of Science in Nursing Concentration in Nursing Leadership

Program Coordinator: Dr. Cynthia Bechtel
Program Advisor: Dr. Cynthia Bechtel

The Master of Science in Nursing (M.S.N.) with a concentration in Nursing Education is designed for graduates with a Bachelor of Science in Nursing who wish to expand their careers into education or leadership. Two concentrations are offered: Nursing Education and Nursing Leadership. All courses are offered in hybrid format, combining online with traditional on campus classroom experiences. The program prepares nurses with a strong theoretical foundation in research, nursing and related theories, healthcare policy, ethics, cultural competency, and informatics/technology as well as practice expertise as a nurse educator or nurse leader.

The master's degree in nursing at Framingham State University is accredited by the Commission on Collegiate Nursing Education (CCNE), (http://www.aacn.nche.edu/ccne-accreditation).

Admission Requirements

Note: Applications are accepted only for enrollment in the fall semester every year. The following admission and degree requirements will be effective for Fall 2013 MSN students.

- 1. Applicants must have a current unrestricted Massachusetts RN license.
- 2. Applicants must have earned a baccalaureate of science in nursing (BSN) degree from a regionally accredited college or university which is nationally accredited by the Commission on Collegiate Nursing Education (CCNE), the Accreditation Commission for Education in Nursing (ACEN), and/or the National League for Nursing Commission for Nursing Education Accreditation (CNEA); and must submit an official transcript from each college or university attended as an undergraduate or graduate student.
- Applicants are required to possess an overall undergraduate quality point average (QPA) or at least 3.0 on a 4.0 scale, and a minimum of a 3.25 QPA in undergraduate nursing courses.
- Applicants who do not meet the above criteria for undergraduate QPA may be asked to take the Miller Analogies Test.
- 5. Applicants must have completed an undergraduate, introductory course in statistics with a minimum grade of C (2.0 on a 4.0 scale).
- Applicants must have a personal interview with the Nursing Chairperson or Graduate Program Coordinator.
- 7. Applicants must provide two letters of recommendation from nurses with an MSN who can attest to the applicant's ability to succeed in a master's program, submitted on the Framingham State University Letter of Recommendation form and sent directly to the University by the recommender.
- Applicants must submit a typed, 300-word personal statement discussing their motivation for seeking a master's degree in view of prior formal education, current job responsibilities and career plans.

Courses before Admission and Transfer Credit

Students may take up to three (3) Framingham State University Graduate Certificate in Nursing Education courses before being formally admitted into the program. All three of the certificate courses will be applied toward the MSN in the nursing education concentration with a minimum grade of B (3.0 on a 4.0 scale). Other coursework will not generally be accepted for transfer credit.

Program Requirements

This program consists of ten (10) course-credits or 40 semester hours. Students take a Common Core of six (6) courses, and then select a four (4) course concentration in either Nursing Education or Nursing Leadership. A thesis, an evidence-based research project/paper, will be completed as part of the requirements for the Common Core courses.

Common Core (6)

NURC 905	Health and Education Resources and Policies
NURC 915	Advanced Technology and Nursing Informatics
NURC 925	Ethical, Social and Cultural Competencies
NURC 935	Essential Preparation for Advanced Nursing Role
NURC 971	Nursing Theory and Research I
NURC 972	Nursing Theory and Research II

Nursing Leadership Concentration (4)

NURL 943	Strategic Planning for Nursing's Future
NURL 953	Role in Health Care Systems
NURL 983	Practicum in Organizational Management
NURL 993	Internship in Independent Leadership Skills

COURSE DESCRIPTIONS

NURC 905 Health and Education Resources and Policies

An exploration of the state of nursing today, as well as the role of the nurse leader and nurse educator in policy and politics within government, workplace, organizations and community in determining policies and effectively utilizing resources to improve the culture of safety, quality care, and the working environment in practice and educational settings. The role of the nurse leader and nurse educator in healthcare delivery and financing is examined.

NURC 915 Advanced Technology and Nursing Informatics

A foundation for the synthesis of technology and informatics into advanced nursing roles. The focus is on the computer competencies, informatics competencies, informational literacy and technology required for the nurse leader and nurse educator. Evidence-based practice is explored to support the utilization of technology within the confines of system resources to meet identified patient and learner needs.

NURC 925 Ethical, Social and Cultural Competencies

An investigation of the ethical, social and cultural competencies necessary for decision making in evidence-based practice by nurses in advanced roles. Principles of ethics, moral development and diversity are explored in order to obtain the knowledge and skills to provide individualized care and protect the personal integrity of patients with diverse health, social, economic and cultural issues.

NURC 935 Essential Preparation for Advanced Nursing Role

An examination of the knowledge and skills required for direct care practice for the nurse in an advanced practice role. Building upon knowledge acquired at the baccalaureate level, students focus on three main areas: pathophysiology, health assessment, and pharmacology.

NURC 971 Nursing Theory and Research I

A focus on the utilization of nursing related theories and the research process to promote evidence-based change in nursing practice and education settings. Critical thinking is used to evaluate nursing research studies. Students incorporate previously learned material on policy, social, cultural, ethical and technological issues into a clinical, health systems and outcomes, and/or nursing education research proposal.

Prerequisites: NURC 905 Health and Education Resources and Policies, NURC 915 Advanced Technology and Nursing Informatics, NURC 925 Ethical, Social and Cultural Competencies.

NURC 972 Nursing Theory and Research II

The application of theory and the research process focusing on implementation and evaluation to enhance health and healthcare. Students conduct an evidence-based project related to topics such as safety, quality of care, systems, ethics, healthy lifestyles, health promotion/prevention of illness and/or teaching strategies in academic and practice settings. Students provide evidence for developing guidelines to advance nursing practice as nurse educators and leaders.

Prerequisite: NURC971Nursing Theory and Research I.

NURL 943 Strategic Planning for Nursing's Future

A foundation for the aspiring nurse leader in shaping change directed to the priorities of quality and safety in the nursing work environment. Students explore the synthesis of principles, theories, and concepts of effective leadership and analyze the individual, interpersonal, and critical thinking skills needed to assist people and organizations in creating and achieving a vision. Primary themes include models of leadership, effective professional communication, collaboration, team building, affirmation of personal and professional values, motivation, mediation, mentoring, empowerment, and risk-taking to effect innovative change.

NURL 953 Role in Health Care Systems

A basis for understanding how the business of health care affects the nurse's role in management or administration, along with the legal, ethical, and regulatory dimensions of organizational leadership. The focus is on the nurse's role as a leader in health and health care using communication and relationship management, knowledge of healthcare environment, business skills, and professionalism to achieve established goals and improve quality of care.

Prerequisite: NURL 943 Strategic Planning for Nursing's Future.

NURL 983 Practicum in Organizational Management (Practicum I)

An application of concepts of CQI organizational dynamics and outcome measures, informatics, and financial management in a variety of health care settings. Students work closely with a leader on organization-designated projects and experience role modeling while contributing to the functioning of the healthcare organization.

Prerequisite: NURL 953 Role in Health Care Systems.

NURL 993 Internship in Independent Leadership Skills (Practicum II)

An opportunity to practice independent leadership skills in an ever-changing healthcare organization. The student completes a selected leadership project to address safety, quality, and/or nursing work environment issues in health care. Acute care agencies, community settings, municipal and state agencies, public and private institutions and/or professional organizations are possible sites for the practicum, thus offering the student a wide range of opportunities to achieve individualized leadership goals.

Prerequisite: NURL 983 Practicum in Organizational Management.

Professional Science Master's Concentration in Biotechnology

Specialization in Quality Assurance

Program Coordinator: Dr. Sunny Tam
Program Advisor: Dr. Sunny Tam

The Professional Science Master's (PSM) with a concentration in Biotechnology, specialization in Quality Assurance provides industry-focused scientific and management training to life science professionals, positioning them for future success in managerial or supervisory roles as they advance in their careers. Aligned with the University's institutional mission of offering programs that produce qualified graduates needed for the Commonwealth job market, the Biotechnology program is flexible and adaptable to the diverse needs of employers in the Massachusetts life sciences community. This PSM program includes the option of earning a Certificate in Quality Assurance in Biotechnology.

Students in this program will gain:

- Acquisition of specific knowledge about biotechnology and related sub-disciplines
- · Hands-on experience in biotechnology industry through a summer internship
- · Networking contacts within the biotechnology industry
- · Increase in potential for employment, pay, and promotion

Application Deadline

Applications are accepted for enrollment into this program for the fall semester, every year. Completed applications should be on file with the Graduate Admissions Office by **July 1**st Applications received after this date cannot be guaranteed timely matriculation into the fall semester. The Graduate Admissions Committee will begin review on an application only upon receipt of the official copies of all required documents.

Admission Requirements

Applicants must:

- Have earned a baccalaureate or master's degree from a regionally accredited college
 or university in a related life sciences discipline and must submit an official transcript
 from each college or university attended as an undergraduate or graduate student.
 - a. Have an overall undergraduate grade point average (GPA) of at least 2.50 on a 4.00 scale including acceptable grades in science course.
 - b. Have coursework or training in statistics, or cell biology, genetics, and/or molecular biology must have been successfully completed within the last five years. Applicants may be required to complete additional coursework prior to being permitted to enroll in courses for this graduate program.
- Submit official test score reports (taken in the last five (5) years) for the Graduate Record Examination (GRE) which includes verbal and quantitative reasoning and analytical writing. Preference is given to those applicants with competitive GRE scores (e.g., 150 Math and 150 Verbal with a 3.5 Writing component.)
- 3. Provide two (2) current letters of recommendation from faculty, supervisors, and/or colleagues.
- 4. Provide a current resume or curriculum vitae.

Professional Science Master's concentration in Biotechnology – Quality Assurance

Submit a 300-word statement of purpose explaining their motivation for seeking this Professional Science Master's degree program.

The Graduate Admissions Committee will begin review of applicant materials upon receipt of all required documents. Complete applications include: application form, two current letters of recommendation, GRE test scores, 300-word personal statement, and all official undergraduate and graduate transcripts.

Program Requirements

The program requires a minimum of 13 courses: 10 core courses, two elective courses, one 400-hour industry-based capstone internship course. Students are admitted to the program in the fall semester and are expected to complete the part-time program in 2.5 years (7 semesters – includes summer). Students who begin the program but cannot complete the degree requirements with their incoming cohort may, with the guidance and approval of the Program Director, develop an alternative plan for completion. All degree requirements must be completed within six years of entering the program.

Students who enter the program with appropriate graduate credits may, at the discretion of the Program Director, receive transfer credit for up to two (2) courses in the program. However, students cannot receive transfer credit for the capstone internship course.

Undergraduate Prerequisite Courses:

DIOT 002

Admitted students who do not have coursework or training in statistics, or cell biology, genetics, and/or molecular biology must have been successfully completed within the last five years may be required to complete undergraduate coursework prior to being permitted to enroll in courses for this graduate program.

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Concentration/Specialization Requirements:

Concentration/Specialization Core Courses (10):

BIOT 903	Drug Development: Process and Regulations
BIOT 908	Quality Assurance and Quality Control for Biotechnology and Biopharmaceuticals
BIOT 930	Biotechnology Laboratory Techniques
BIOT 941	Molecular Biotechnology
BIOT 952	Scientific and Technical Communication in Biotechnology
BIOT 966	Ethical Implications of Biotechnology
BUIS 956	Project Management for Biotechnology
MATH 924	Advanced Biostatistics
MGMT 921	Business Operations Management for Biotechnology
MGMT 945	Management and Leadership for Biotechnology

Elective Courses (2):

Elective courses will not be offered each semester. Students should meet with their program advisor regularly to discuss when electives may be offered.

CHEM 936	Current Topics in Biochemistry
BIOT 970	Current Topics in Genetics, Epigenetics, and Genomics
BIOT 972	Cells and Systems
BIOT 974	Applied Immunology

Professional Science Master's concentration in Biotechnology – Quality Assurance

BIOT 978 Drug Discovery

BIOT 980 Biotechnology Patent Law

Capstone Courses (1):

BIOT 995 Biotechnology Internship

COURSE DESCRIPTIONS

BIOT 903 Drug Development: Process and Regulations

Designed to provide students with an overview of drug development, for both small molecules and biotherapeutics. The course emphasizes the diverse set of activities in pharmaceutical development; discusses key stages and decisions points in the process; and details the importance of quality control and meeting regulatory requirements. Case studies are presented by guest lecturers from the pharmaceutical and biotechnology industry to illustrate the complexities of drug development.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 908 Quality Assurance and Quality Control for Biotechnology and Biopharmaceuticals

An examination of the application of quality practices in the development, manufacturing, control and assessment of products in the biotechnology and biopharmaceutical industries. Students learn the principles of QSR (Quality Systems Requirements) as they apply to the procurement of materials and the manufacture, validation and release of products. Through the use of case studies, the course presents the commonalities of QSR and the application of GMP (Good Manufacturing Practices) for all product types, as well as the specific requirements and differences among biologics, small molecules and devices.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 930 Biotechnology Laboratory Techniques

An exposure to techniques commonly used in the biotechnology industry. It focuses on the use of cell culture in the production of biologically active products. The course emphasizes sterility, purification, assay of a final product, and documentation. Discussion of Good Laboratory Practices and designing lab techniques to meet regulations are included. The course requires written analysis of data. Laboratory (4 hours).

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 941 Molecular Biotechnology

A seminar course which focuses on literature review and analysis. Topics discussed cover several areas in biotechnology, including bioprocessing, biomedical, and agricultural applications. Students are required to write a review-style paper on a topic of their choice and present their paper to their classmates in an oral presentation.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 952 Scientific and Technical Communication in Biotechnology

A focus on oral and written communication for both scientific and nonscientific audiences for a variety of sources in biotechnology, including journals, investor relations, and regulatory documentation.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 966 Ethical Implications of Biotechnology

A seminar course that examines the ethical implications of decisions made in biotechnology as well as the responsibilities of life scientists in their communities. Course discussions include stewardship and environmental impacts of biomanufacturing as well as ethical use of laboratory animals.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 970 Current Topics in Genetics, Epigenetics, and Genomics

An advanced genetics course that examines the relationship between genes and environment, with emphasis on molecular genetics and epigenetics. The course discusses genomics of humans and model organisms, explores common experimental approaches in molecular genetics, and includes a discussion of personalized medicine.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 972 Cells and Systems

A study of biological systems at the cell, tissue, and organismal levels, including a discussion of proteomics, genomics, regulatory pathways, stochasticity, and the transcriptome. Students focus on techniques that allow the study of groups of functionally interacting structures as a whole.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 974 Applied Immunology

An advanced study of the principles of immunology and its application to diseases and health. Emphasis is on applications of immunological principles as they pertain to medical diagnostics and biotechnology. The course examines the molecular and cellular components of the immune system relevant to the diagnosis of infectious diseases, genetic- and infection-associated immunodeficiency, cancer, hypersensitivity, autoimmunity, and transplantation.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology and previous completion of an undergraduate microbiology course (or equivalent).

BIOT 978 Drug Discovery

Designed to provide the student with an overview of drug discovery for both small molecules and biotherapeutics. The course emphasizes the interdisciplinary nature of pharmaceutical research and discuss key stages and decisions points in the process. Case studies are used by guest lecturers from the pharmaceutical and biotech industry to illustrate the challenges of identifying human drug targets and delivering drug candidates.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

BIOT 995 Biotechnology Internship

An internship which involves an employer-driven project that can be completed in one semester. Individuals currently employed may complete their internship with their current employer but must complete a project distinct from their normal role at the company. At the end of the internship, the student prepares a written summary and analysis of the project with the guidance of the internship mentor and approval of the industry supervisor. A minimum of 400 hours is required.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology and completion of 10 courses within the program.

BIOT 980 Biotechnology Patent Law

An overview of biotech patent law for life science managers, scientists, researchers, business development managers, and investors. This course provides a fundamental understanding of creating and protecting value in a biotechnology company through established mechanisms grounded in patent and licensing law. Students learn the basics of patent filing, patent strategy, product protection in the United States and other countries, licensing (and other conveyances) for value, as a function of business value creation and business development.

Prerequisites: Acceptance into the P.S.M. program in Biotechnology.

BUIS 956 Project Management for Biotechnology

Designed for life science professionals. This course utilizes the project management model developed by the Project Management Institute to introduce students to a common methodology for project planning and control. Specific emphasis is placed on project management in biotechnology and the life sciences.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

CHEM 936 Current Topics in Biochemistry

An advanced biochemistry course designed to enhance the understanding of protein structure, function and biosynthesis; enzyme structure, function and regulation; and carbohydrate metabolism and energetics. This course draws upon the fields of organic chemistry, biochemistry and cell biology for understanding the rationale for the development of new therapeutic agents used in the pharmaceutical industry.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology and previous completion of an undergraduate biochemistry course (or equivalent).

MATH 924 Advanced Biostatistics

Designed for data interpretation, analysis and statistical application in the biotechnology industry. Students perform analysis of quality and assess risk in making business decisions. It includes discussion of appropriate experimental methods. Students apply statistical analysis software commonly used in biotechnology and professional science industries.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

MGMT 921 Business Operations Management for Biotechnology

Designed for science professionals to develop and apply skills and knowledge for managing business operations. Topics include concepts and techniques for planning, designing, controlling and improving business operations. Real-world business cases are used to develop students' management capacity and capability. Areas of focus include the process view of organizations, performance measures, products and product attributes, production processes, process competencies, procurement and supply chain management and regulatory requirements.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

MGMT 945 Management and Leadership for Biotechnology

Designed for life science professionals. The course addresses managerial and leadership styles and the dynamics of organizational behavior. Topics include managerial effectiveness strategies, leadership styles, organizational structuring issues, interpersonal relationships, and the building and managing of teams. This course includes case studies from the biotechnology industry.

Prerequisite: Acceptance into the P.S.M. program in Biotechnology.

Master of Arts concentration in Educational Leadership Non-Licensure Track

Note: Offered only through the international programs of the C. Louis Cedrone International Education Center. This program is only offered to teachers living and working abroad. It does <u>not</u> have any attachments such as licensure.

Program Coordinator: Dr. Robert Freyermuth

Program Advisors: Dr. Robert Freyermuth

Dr. Marguerite Mahler

The Master of Arts (M.A.) with a concentration in Educational Leadership is designed to provide qualified and experienced educators with the knowledge and skills necessary for positions of leadership in school settings. The program emphasizes the role of school leader as collaborator and creator of a supportive and stimulating environment for children and teachers. Courses are provided in an intensive format and require prior readings along with pre-course and post-course assignments that relate academic study to actual field experiences. Students are required to arrange non-credit leadership learning opportunities under the supervision of school administrators or directors.

Courses include field-based experiences designed for the administrator preparation program. Because of state specific Performance Standards, the International Program in Educational Leadership does not lead to licensure. The nature of the site-based experiences varies according to the unique career paths of students in international schools. Description and documentation of the field-based experiences are the responsibility of the student and the cooperating administrator/director from the school. These should be included in the student's portfolio.

Admission Requirements

- The applicant must have a baccalaureate degree from a regionally accredited college or university. An applicant with a foreign degree must submit official transcripts to an accredited evaluation agency. Names of the accredited agencies are available upon request.
- 2. The applicant must have a minimum undergraduate minimum grade point average of 3.00 on a 4.00 scale.
- The applicant must have a minimum of three full years of employment as a teacher.

Program Requirements

The program consists of 10 courses and includes three (3) core courses and seven (7) concentration courses. As a culminating experience, each matriculated student in the Educational Leadership program is required to complete a portfolio to be turned in at the end of the student's final course and submitted to the C. Louis Cedrone International Education Center at Framingham State University.

Education Core Courses (3)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Developments and Communication
EDUC 999	Research and Evaluation (recommended after
	completion of three Content/Concentration courses)

Concentration Courses (7)

EDLE 927	Advanced Teaching Strategies
EDLE 938	Technology Applications for School Leaders
EDLE 947	A Systems Approach to Educational Finance
EDLE 948	Legal Issues and Concerns in Education
EDLE 970	Curriculum Design, Practice and Assessment
EDLE 986	Collaborative Leadership and Organizational Change
EDLE 987	Supervision and Staff Development

Information on Portfolio

The portfolio includes an introductory page plus ten typed or written pages (one for each course) and an overall summary composed of the following parts:

- 1. An introductory page of one or two paragraphs that gives a brief biographical sketch about you as a student and professional educator.
- For each course, a summary of an assignment, project or a course experience that was especially meaningful to you.
- A self-reflective statement that discusses how each course contributes to your ability to become a more effective educator and lifelong learner. This part should also discuss how you plan to apply what you have learned from this course.
- 4. At the conclusion of all course work, the student prepares a summary statement that describes how the overall program has contributed to him or her professionally as an educator or lifelong learner.

The portfolio is reviewed by a faculty committee of the International Education Program to determine if it has met the requirements stated above and received a Pass/Fail grade. It will be filed in the C. Louis Cedrone International Education Center at Framingham State University. Students should submit the portfolio within thirty days after their final course. The degree will not be granted until the portfolio has been graded and approved.

COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

EDLE 927 Advanced Teaching Strategies

Designed to help educators become more skilled and versatile in their application of teaching strategies, including guided discovery, discussion formats, questioning skills, inquiry training, cooperative groupings, and individualized formats. Students design a comparative study of teaching strategies, including lesson materials and evaluation instruments, to be conducted in a current or future classroom setting, depending on each student's circumstances. The course analyzes research findings, comparative research designs, and the relationship between teaching strategies and learning styles.

EDLE 938 Technological Applications for School Leaders

Covers the essentials of technology needed to facilitate school based leadership. Emphasizes technology skills required for supervision of instruction in technology-enhanced classrooms. Approaches to integrating technology into the development of curriculum and to fostering the professional development of staff in the area of technology are included. Ways to strengthen school-home relationships through distance learning and instruction-driven web sites are also explored. Students enhance their technological skills while creating a context for working with teachers and instructional technology specialists within K-12 learning environments.

EDLE 947 A Systems Approach to Educational Finance

An examination of the financial relationship between and among the five major systems of a school - curriculum, infrastructure, supervision, evaluation, and professional development. Students develop an understanding of the theoretical foundations of education, the laws and regulations pertaining to school finance, grant development and management, the interrelationship of education and municipal financing, and the development of a school-based financial plan.

EDLE 948 Legal Issues and Concerns in Education

Offers participants the opportunity to learn the interactions between public education and the law stressing the notion of Preventive Law. Topics covered may include: employment of public school employees; curriculum, religion and schools; freedom of expression; discrimination and harassment; special education; discipline; and the implications of current federal and state statutes.

concentration in Educational Leadership: Non-Licensure Track

EDLE 970 Curriculum Design, Practice and Assessment

Provides students with a curriculum update in the major subjects of schooling with special emphasis on student assessment, teaching strategies, learning styles and interdisciplinary curriculum development. Students create a model for designing, implementing, and evaluating curriculum in a chosen discipline. Curriculum concepts are integrated in ways which are meaningful to various cultural groups and minorities. Factors which determine the success of curriculum change, including a needs assessment, will be considered.

EDLE 980 Practicum in School Leadership I

Provides students with an opportunity for a supervised experience in the administration of a school system. The student is guided by the cooperating school system and his/her college supervisor. Experiences are included to familiarize the student with all facets of the responsibility of school administration and those representing a range of racial, religious, and socioeconomic backgrounds. Securing a placement for the practicum is the student's responsibility.

Prerequisite: Approval by the advisor and the Associate Dean. Students must provide evidence of passing scores on the MTEL Communication and Literacy Skills Test prior to beginning the Practicum.

EDLE 981 Practicum in School Leadership II: Grades PreK-6

A continuation of a two-part supervised experience in School Administration leading to licensure as a Principal/Assistant Principal, Grades PreK-6. The emphasis continues to focus on the successful application of the Professional Standards for Administrators set forth in the Massachusetts Department of Elementary and Secondary Education Regulations 603 CMR 7.10. Students are expected to complete a minimum of 150 hours in Grades PreK-6 in activities that demonstrate successful mastery of the standards under the supervision of a supervising practitioner and a Framingham State University supervisor. A portfolio demonstrating how each standard has been successfully fulfilled is required. **Prerequisite:** EDLE 980 Practicum in School Leadership I and advisor approval.

EDLE 982 Practicum in School Leadership II: Grades 5-8

A continuation of a two-part supervised experience in School Administration leading to licensure as a Principal/Assistant Principal, Grades 5-8. The emphasis continues to focus on the successful application of the Professional Standards for Administrators set forth in the Massachusetts Department of Elementary and Secondary Education Regulations 603 CMR 7.10. Students are expected to complete a minimum of 150 hours in Grades 5-8 in activities that demonstrate successful mastery of the standards under the supervision of a supervising practitioner and a Framingham State University supervisor. A portfolio demonstrating how each standard has been successfully fulfilled is required.

Prerequisite: EDLE 980 Practicum in School Leadership I and advisor approval.

EDLE 983 Practicum in School Leadership II: Grades 9-12

A continuation of a two-part supervised experience in School Administration leading to licensure as a Principal/Assistant Principal, Grades 9-12. The emphasis continues to focus on the successful application of the Professional Standards for Administrators set forth in the Massachusetts Department of Elementary and Secondary Education Regulations 603 CMR 7.10. Students are expected to complete a minimum of 150 hours in Grades 9-12 in activities that demonstrate successful mastery of the standards under the supervision of a supervising practitioner and a Framingham State University supervisor. A portfolio demonstrating how each standard has been successfully fulfilled is required.

Prerequisite: EDLE 980 Practicum in School Leadership I and advisor approval.

EDLE 984 Practicum in School Leadership II: Supervisor/Director

A continuation of a two-part supervised experience in School Administration leading to licensure as a Supervisor/Director. The emphasis continues to focus on the successful application of the Professional Standards for Administrators set forth in the Massachusetts Department of Elementary and Secondary Education Regulations 603 CMR 7.10. Students are expected to complete a minimum of 150 hours in Supervisor/Director activities that demonstrate successful mastery of the standards under the supervision of a supervising practitioner and a Framingham State University supervisor. A portfolio demonstrating how each standard has been successfully fulfilled is required.

Prerequisite: EDLE 980 Practicum in School Leadership I and advisor approval.

EDLE 986 Collaborative Leadership & Organizational Change

Examines school organizations and cultures; forms of school governance; the change process; and the concept of collaboration among administrator, teacher, parent and community leaders as a means of bringing about more effective schools. Proposals for reconceptualizing schools are reviewed. This course will include a field-based training component.

EDLE 987 Supervision and Staff Development

Understanding and supporting the development of teachers is a major emphasis of this course. Students will acquire interpersonal and technical skills to assist them in working with people in their roles as supervisors, consultants, and advisors, and in improving the quality of instruction in schools. New developments in the field of supervision, (e.g., mentoring, group clinical supervision, beginning teacher induction programs, study groups); issues related to supervising in schools, (e.g., working with a multicultural and multi-ethnic staff), and recent supervision research are examined. This course will include a field-based training component.

Prerequisite: EDLE 927 Advanced Teaching Strategies

Master of Education concentration in International Teaching

Note: Offered only through the international programs of the C. Louis Cedrone International Education Center. This program is only offered to teachers living and working abroad. It does <u>not</u> have any attachments such as licensure.

Program Coordinator: Dr. Robert Freyermuth

Program Advisors: Dr. Robert Freyermuth

Dr. Marguerite Mahler

The Master of Education (M.Ed.) with a concentration in International Teaching presents a unique opportunity for educators living and working abroad to advance both academically and professionally while working in overseas assignments. The program is designed to provide a quality education to English-speaking teachers in Central America, South America, Mexico, Europe, and Asia. Courses are provided in a condensed format supported by prior readings, and culminate in a final project.

Admission Requirements

- The applicant must have a baccalaureate degree from a regionally accredited college or university.
- The applicant must have a minimum undergraduate minimum grade point average of 2.80 on a 4.00 scale.

Program Requirements

This program consists of a total of nine (9) courses as eight (8) core and one (1) elective. As a culminating experience, each matriculated student in the International Teaching program will be required to complete a portfolio to be turned in at the end of the student's final course and submitted to the C. Louis Cedrone International Education Center at Framingham State University.

Required Courses (8):

EDUC 921	Supervision, Staff	Development,	and	Collaborative
	Leadership			
EDUC 926	Issues and Influences in	Education		
EDUC 932	Creative Teaching Tech	niques and Utiliz	zation o	f Multimedia
EDUC 999	Research and Evaluatio	n		
EDUC 925	Curriculum: Theory and	d Practice		
LTRC 920	Issues and Strategies in	Reading and Lite	eracy In	struction
SPED 924	Special Education in the	e Regular Classro	oom	
TESL 928	English as a Second La	nguage and Cross	s-Cultu	ral Awareness

Elective Course (1):

The elective course is determined by the program coordinator and reflects local interest and needs. Possible electives are listed below. Additional choices may be available.

EDLE 927 Advanced Teaching Strategies

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Development and Communication
LTRC 926	Teaching the Writing Process
SPED 960	Assessment of Learning Problems

Information on Portfolio Requirement

SPEC 963

Master of Education

concentration in International Teaching

The portfolio includes an introductory page plus ten typed or written pages (one for each course) and an overall summary composed of the following parts:

Behavior and Classroom Management

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- 1. An introductory page of one or two paragraphs that gives a brief biographical sketch about you as a student and professional educator.
- 2. For each course, a summary of an assignment, project or a course experience that was especially meaningful to you.
- A self-reflective statement that discusses how each course contributes to your ability to become a more effective educator and lifelong learner. This part should also discuss how you plan to apply what you have learned from this course.
- 4. At the conclusion of all course work, the student prepares a summary statement that describes how the overall program has contributed to him or her professionally as an educator or lifelong learner.

The portfolio is reviewed by a faculty committee of the International Education Program to determine if it has met the requirements stated above and received a Pass/Fail grade. It will be filed in the C. Louis Cedrone International Education Center at Framingham State University. Students should submit the portfolio within thirty days after their final course. The degree will not be granted until the portfolio has been graded and approved.

COURSE DESCRIPTIONS

EDLE 927 Advanced Teaching Strategies

Designed to help educators become more skilled and versatile in their application of teaching strategies, including guided discovery, discussion formats, questioning skills, inquiry training, cooperative groupings, and individualized formats. Students design a comparative study of teaching strategies, including lesson materials and evaluation instruments, to be conducted in a current or future classroom setting, depending on each student's circumstances. The course analyzes research findings, comparative research designs, and the relationship between teaching strategies and learning styles.

EDLE 938 Technological Applications for School Leaders

Covers the essentials of technology needed to facilitate school based leadership. Emphasizes technology skills required for supervision of instruction in technology-enhanced classrooms. Approaches to integrating technology into the development of curriculum and to fostering the professional development of staff in the area of technology are included. Ways to strengthen school-home relationships through distance learning and instruction-driven web sites are also explored. Students enhance their technological skills while creating a context for working with teachers and instructional technology specialists within K-12 learning environments.

EDLE 947 A Systems Approach to Educational Finance

An examination of the financial relationship between and among the five major systems of a school - curriculum, infrastructure, supervision, evaluation, and professional development. Students develop an understanding of the theoretical foundations of education, the laws and regulations pertaining to school finance, grant development and management, the interrelationship of education and municipal financing, and the development of a school-based financial plan.

EDLE 948 Legal Issues and Concerns in Education

Offers participants the opportunity to learn the interactions between public education and the law stressing the notion of Preventive Law. Topics covered may include: employment of public school employees; curriculum, religion and schools; freedom of expression; discrimination and harassment; special education; discipline; and the implications of current federal and state statutes.

EDLE 970 Curriculum Design, Practice and Assessment

Provides students with a curriculum update in the major subjects of schooling with special emphasis on student assessment, teaching strategies, learning styles and interdisciplinary curriculum development. Students create a model for designing, implementing, and evaluating curriculum in a chosen discipline. Curriculum concepts are integrated in ways which are meaningful to various cultural groups and minorities. Factors which determine the success of curriculum change, including a needs assessment, will be considered.

EDLE 986 Collaborative Leadership and Organizational Change (Pre-Practicum)

Examines school organizations and cultures; forms of school governance; the change process; and the concept of collaboration among administrator, teacher, parent and community leaders as a means of bringing about more effective schools. Proposals for reconceptualizing schools are reviewed. This course will include a field-based training component.

EDLE 987 Supervision and Staff Development (Pre-Practicum)

Understanding and supporting the development of teachers is a major emphasis of this course. Students will acquire interpersonal and technical skills to assist them in working with people in their roles as supervisors, consultants, and advisors, and in improving the quality of instruction in schools. New developments in the field of supervision, (e.g., mentoring, group clinical supervision, beginning teacher induction programs, study groups); issues related to supervising in schools, (e.g., working with a multicultural and multi-ethnic staff), and recent supervision research are examined. This course will include a field-based training component.

Prerequisite: EDLE 927 Advanced Teaching Strategies

EDUC 921 Supervision, Staff Development, and Collaborative Leadership

Emphasizes issues affecting the professional teacher and staff. Students practice interpersonal and technical skills to assist them in working with others and in improving the quality of classroom instruction. The course explores principles of change, trends, and models of staff development, issues related to sharing leadership among teachers and administrators, and the development of a professional culture in schools.

EDUC 925 Curriculum: Theory and Practice

Examines theory and practice in curriculum development and evaluation. Emphasis is placed upon K-12 curriculum objectives, models of curriculum and relationships of curriculum to basic texts.

EDUC 926 Issues and Influences in Education

Examines issues and influences that affect education and educational practice. Attention is given to the special character of overseas education. Emphasis is placed on understanding and strategy building.

Master of Education concentration in International Teaching

EDUC 932 Creative Teaching Techniques and Utilization of Multimedia

An introduction to the appropriate use of media methods and creative techniques that improve classroom communication. Familiarization with available instructional multimedia and its proper utilization will be stressed. Emphasis also on organizational development and analyzing effective presentation strategies. There are opportunities, when appropriate, for on-site production experience.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

LTRC 920 Issues and Strategies in Reading and Literacy Instruction

Emphasizes prominent issues facing literacy education today. Basic concepts, approaches, and strategies essential for good literacy teaching will be addressed. Topics include the nature of early literacy acquisition, comprehension and word analysis strategies, literature and reader response, use of alternative or authentic assessment, with emphasis on portfolios, classroom organization and management strategies, family literacy, and the influence of cultural linguistic diversity on reading instruction.

SPED 924 Special Education in the Regular Classroom

Examines the theories and treatment of students with special needs in the regular classroom. Included are major theories, current research, analysis of model programs, diagnoses, materials, strategies and multi-disciplinary factors.

TESL 928 English as a Second Language and Cross-Cultural Awareness

Emphasis on methodology, materials and research related to the teaching of English as a second language and language acquisition. Attention is given to teaching situations that include students from diverse cultural and linguistic backgrounds.

Master of Education Concentration in Special Education

Non-Licensure Track

Note: Offered only through the international programs of the C. Louis Cedrone International Education Center. This program is only offered to teachers living and working abroad. It does <u>not</u> have any attachments such as licensure.

Program Coordinator: Dr. Robert Freyermuth
Program Advisors: Dr. Robert Freyermuth

Dr. Marguerite Mahler

The Master of Education (M.Ed.) with a concentration in Special Education prepared the overseas teacher to teach students with Moderate Disabilities.

Admission Requirements

- 1. The applicant must have earned a baccalaureate degree from an accredited college or university.
- 2. The applicant must have a minimum undergraduate minimum grade point average of 2.80 on a 4.00 scale.
- 3. The applicant must submit satisfactory scores on the Graduate Record Examination (GRE) General Test.

Program Requirements

This program requires successful completion of twelve (12) courses. An oral comprehensive examination is required of all students as the culminating experience. A professional portfolio must be completed and presented prior to the oral comprehensive examination as part of the degree program. The exam is taken during the student's final semester of study.

Education Core Courses (3)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Developments and Communication
EDUC 999	Research and Evaluation (recommended after completion of three Content or Concentration courses)

Concentration Courses (8)

LTRC 907	Literacy Instruction
LTRC 930	Literacy Instruction for Diverse Learners
SPED 937	Connecting Mathematical Concepts and Teaching
SPED 956	Curriculum Development and Modification
SPED 960	Assessment of Learning Problems
SPED 962	Developmental Patterns of Children with Special Needs
SPED 963	Behavior and Classroom Management
SPED 964	Collaborative Educational Planning

Special Education: Non-Licensure Track

Electives (1)

All students must select an elective course from an academic content area.

Note: This program is only offered to teachers living and working abroad. It does <u>not</u> have any attachments such as licensure.

COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

An understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

A consideration of typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

A focus on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

LTRC 907 Literacy Instruction

A focus on principles of reading and writing instruction at all levels and includes reading and writing process, skills and strategies, phonemic awareness and phonics, approaches, instructional materials, and informal assessment. Note: Credit will not be given for both this course and 14.830 Advanced Literacy Instruction/Developmental Reading.

LTRC 930 Literacy Instruction for Diverse Learners

A focus on differentiated instruction in reading and writing including assessment, learner profiles, instructional design, and implications for literacy learning. Students design and implement a literacy program for learners with disabilities. This course includes a required pre-practicum, field-based experience of 25 hours. The majority of the time is spent working with an individual student.

Prerequisite: LTRC 907 Literacy Instruction. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 937 Connecting Mathematical Concepts and Teaching

Designed for teachers to investigate the major mathematical concepts and content found in the Massachusetts Mathematics Curriculum Framework, in order to improve their understanding and recognition of connections within the mathematical curriculum. By analyzing classroom cases, participants learn to identify mathematical concepts with which students struggle. Teachers improve their ability to communicate mathematical ideas to students.

concentration in

Special Education: Non-Licensure Track

SPED 956 Curriculum Development and Modification

An examination of various curriculum designs to determine realistic goals for students with different learning styles. Classroom structure and design, cooperative learning, peer tutoring, social skills coaching, alternative communication approaches, and team teaching are strategies that are explored. Emphasis is placed on collaborative planning of curriculum units (academic, vocational, life skills), by the interdisciplinary team that address the needs and strengths of each student. Students develop curriculum units, conduct field tests, evaluate and modify their plans. This course includes a required pre-practicum field-based experience of 25 hours in a public school or other approved educational setting. Prerequisite: SPED 962 Developmental Patterns of Children with Special Needs. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 960 Assessment Procedures

An observation, recording and analysis of children's behaviors through culturally sensitive formal and informal assessments. Diagnostic tests in areas of cognitive, affective, psychomotor and social development, and approaches such as archival research, the development of narrative reports, and portfolio assessment techniques are used. Collaboration with other professionals to develop a comprehensive assessment of the student's abilities is an integral part of the course. Translation of results into meaningful educational practice is stressed. This course includes a required pre-practicum field-based experience of 25 hours in a public school or other approved educational setting. **Prerequisite:** SPED 962 Developmental Patterns of Children with Special Needs. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 962 Development Patterns of Students with Moderate Disabilities

A review of the developmental sequence from birth through adulthood with emphasis on understanding various pervasive and developmental delays and disabilities. Appropriate educational planning that supports the cognitive, linguistic, social/emotional and physical growth of students in an integrated setting will be examined. Particular emphasis is placed on the interdisciplinary team approach that supports collaboration between the general education classroom teacher and other personnel to provide an appropriate program for students with special needs. This course includes a required pre-practicum field-based experience of 25 hours in a public school or other approved educational setting.

SPED 963 Behavior and Classroom Management

Designed to familiarize students with management strategies including behavior and psychodynamic approaches appropriate for classroom implementation as well as homeschool behavior management. Many theories are explored with provisions for teachers to select options in order to meet the individual needs of students in a small and large group setting. Class participants learn how outside agencies can be utilized to affect student behavior. Focus is on systematic data collection, objective reporting, and various methods of reinforcement to elicit appropriate behavior.

Prerequisite: SPED 962 Developmental Pattern of Children with Special Needs. Open to matriculated graduate students or by permission of the special education program coordinator.

SPED 964 Collaborative Educational Planning

A preparation and review of individual educational plans to comply with existing federal legislation, state laws, and eligibility guidelines. Exemplary practices including in-class delivery of special services are addressed. Students identify appropriate resources and agencies for effective collaboration including those necessary to facilitate a smooth transition to adult services.

Prerequisite: SPED 960 Assessment of Learning Problems. Open to matriculated graduate students or by permission of the special education program coordinator.

The Teaching of English as a Second Language: Non-Licensure Track

Master of Education concentration in The Teaching of English as a Second Language

Note: Offered only through the international programs of the C. Louis Cedrone International Education Center. This program is only offered to teachers living and working abroad. It does <u>not</u> have any attachments such as licensure.

Program Coordinator: Dr. Marguerite Mahler
Program Advisor: Dr. Marguerite Mahler

The Master of Education (M.Ed.) with a concentration in The Teaching of English as a Second Language (TESL) is designed for teachers who are currently teaching overseas and who have a strong interest in second language related issues. It provides the theoretical and practical knowledge to be a competent and effective teacher of English as a Second/ Foreign Language. Courses are provided in an intensive format and require prior readings, precourse, and post-course assignments. The program of study culminates in a final portfolio.

Admission Requirements

Non-Licensure Track

- The applicant must have a baccalaureate degree from a regionally accredited college or university. Applicants with a foreign degree must submit official transcripts to an accredited evaluation agency. Names of accredited agencies are available upon request.
- The applicant must have a minimum undergraduate minimum grade point average of 2.80 on a 4.00 scale.

Program Requirements

This program requires a minimum of ten (10) courses is required for graduation. As a culminating experience, each matriculated student is required to complete a portfolio at the end of the student's final course. Portfolios are to be submitted to the C. Louis Cedrone International Education Center at Framingham State University.

Education Core Courses (3)

EDUC 991	Philosophy of Education and Teaching Practice
EDUC 998	Language Development and Communication
EDUC 999	Research and Evaluation (recommended after
	completion of three Content or Concentration courses)

Concentration Courses (7)

TESL 901	Language Structure: Phonetics and Morphology
TESL 902	Language Structure: Syntax, Semantics, and Pragmatics
TESL 913	Current Issues in Second Language Acquisition
TESL 920	Technology in the Second Language Classroom
TESL 936	The Teaching of Second Language Skills

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concentration in

The Teaching of English as a Second Language: Non-Licensure Track

TESL 948 Teaching Reading and Writing in the English Immersion

Classroom

TESL 966 Seminar in Applied Linguistics

COURSE DESCRIPTIONS

EDUC 991 Philosophy of Education and Teaching Practice

Deals with an understanding of educational philosophies as the basis for educational practice; with the development of one's own educational philosophy; and with the use of the philosophical bases to address issues of instruction, (e.g. individual assessment, appropriate communication, and equality in education).

EDUC 998 Language Development and Communication

Considers typical and atypical language acquisitions and development in children. Topics covered include difference between first and second language acquisition, the communication process, the relationship between the language of the school and the language of the community. Implications of ethnic, linguistic, psychological, and cultural differences among children for language learning are explored.

EDUC 999 Research and Evaluation

Focuses on practical research related to students, curriculum, and schools. Research methodology, including technology, is used to improve teaching, learning, and the educational setting. Students complete a content-specific research project related to their designated graduate program.

TESL 901 Language Structure: Phonetics and Morphology

An introduction to the universal linguistic properties of sound systems and the basic features of the sound system of English. The rules of word formation and aspects of morphological typology are also examined. English is compared and contrasted with other languages. Note: This course satisfies the M.Ed. in Spanish program requirement of Romance linguistics study.

TESL 902 Language Structure: Syntax, Semantics, and Pragmatics

An introduction to the ways in which words are organized to form sentences and how words and syntactic structure combine to yield meaning. The combining of sentences into conversations to express a range of attitudes and relationships is also covered. English is compared and contrasted with other languages. **Note:** This course satisfies the M.Ed. in Spanish program requirement of Romance linguistics study.

TESL 913 Current Issues in Second Language Acquisition

A review of recent research and theories of second-language acquisition and the factors that lead to successful acquisition. The ways in which children cope with multi-linguistic systems and function in school are explored.

TESL 920 Technology in the Second Language Classroom

An exploration of the use of current technologies in teaching and learning in the second language and foreign language classroom. Attention is given to technologies that enhance collaboration, communication, and creativity among learners. Includes the design of lesson plans that incorporate technologies such as Wikis, Blogs, Podcasts, and other collaborative web-based tools for classrooms.

TESL 932 Sheltered Instruction for the Content Area

Focuses on the development of content lessons and strategies in the teaching of sheltered subject matter. Student learning assessment is incorporated in course materials and projects.

The Teaching of English as a Second Language: Non-Licensure Track

TESL 936 The Teaching of Second Language Skills

An examination of the theories and sheltered principles for developing the language skills of listening, speaking, reading, and writing for second language learners. Special attention is given to second language learners in bilingual or multilingual classrooms. Language assessment instruments are studied. Individual and social variables that affect performance are treated. The incorporation of the Massachusetts Curriculum Frameworks into lesson plans is emphasized. **Note:** Students cannot receive credit for both this course and either TESL 918 The Teaching of English Language Skills or TESL 955 Advanced Instructional Techniques in the Teaching of Foreign/Second Language.

TESL 948 Teaching Reading and Writing in the English Immersion Classroom

Explores reading theory and research and their application in shaping and developing literacy skills in English language learners. Balanced reading instruction, specific sheltered English literacy strategies that include vocabulary development, and measures for assessing literacy skills form the core of this course.

TESL 966 Seminar in Applied Linguistics

An advanced seminar whose topics change from term to term. Topics in sociolinguistics, psycholinguistics, discourse analysis, and conversational analysis are considered.

Content Electives

Refer to your program of study degree requirements to determine which course subject electives are applicable to your degree.

ART HISTORY and STUDIO ART COURSE DESCRITIONS

Refer to Master of Education, concentration in Art section of this catalog.

BIOLOGY COURSE DESCRIPTIONS

BIOL 801 Genetics

A study of the principles governing heredity in all living things, including microorganisms, plants, and animals. Topics covered include Mendelian inheritance, molecular genetics, cytogenetics, human hereditary disease, and population genetics. Laboratory.

Prerequisites: Introductory courses in biology and chemistry or permission of advisor.

BIOL 802 Process of Organic Evolution

A study of the historical development of evolutionary thought in the pre- and post-Darwinian periods; the interplay among mutations, recombination, gene flow, natural selection and genetic drift in determining the direction of evolutionary change; isolating mechanisms and the origins of species; the role of polyploidy in plant evolution; the significance of hybridization in evolution and speciation; evidence of evolution from various disciplines. No laboratory.

Prerequisite: An introductory course in genetics or permission of advisor.

BIOL 810 Cell Biology

A study of the structure and function of cells and their major organelles. Topics covered include the nucleus, mitochondria, Golgi, lysosome, endoplasmic reticulum, protein trafficking, signal transduction, cellular energetics, and gene expression. Laboratory exercises are mostly experimental.

Prerequisites: Introductory courses in biology and chemistry or permission of advisor.

BIOL 830 Immunology

A study of the principles of immunology. The immune response, antibody formation in cells and the whole animal, immuno-suppression, blood group antigens, and the kinetics of antigen-antibody reactions are described. The structure of the antibody and its active site are examined at the molecular level. The roles of complement, hypersensitivity (allergy), and auto allergic reactions and transplantation immunity are discussed. Laboratory. **Prerequisite:** BIOL 307 Microbiology or permission of the instructor.

BIOL 835 Recombinant DNA Technology

Designed to familiarize the student with the processes and techniques employed by the biotechnology industry to produce recombinant products. The theoretical foundations for recombinant DNA methodology, as well as medical forensic and commercial applications of genetic engineering are considered. Laboratory exercises include DNA isolation, restriction enzyme mapping, cloning to selectable vectors, gel electrophoresis, polymerase chain reaction, DNA sequencing, and selected protein purification methodology. **Prerequisites:** BIOL 301 Genetics and BIOL 307 Microbiology.

BIOL 839 Neurobiology

An advanced examination of the development, structure and function of the central and peripheral nervous systems. Topics covered include synaptic communication, neurotransmission, sensory and motor processing, reflexes and cellular processes of learning and memory. It is designed for biology or psychology majors with an interest in neurophysiology. Laboratory.

Prerequisite: BIOL 272 Human Anatomy and Physiology I or BIOL 234 Comparative Vertebrate Physiology or permission of the instructor.

BIOL 859 Neighborhood Botany

Designed to acquaint the student with the tools for identifying the flowering plants and conifers in the local flora. The course will include vegetative and floral morphology, use and construction of botanical keys and collecting techniques.

BIOL 871 Medical Microbiology

An overview of human infectious diseases caused by viruses, bacteria, and fungi. Emphasis is placed on current diagnostic techniques and microbial pathogenic mechanisms, and on contemporary issues that include newly emerging infectious diseases, vaccines, and bioterrorism. Laboratory exercises focus on state-of-the-art procedures for the isolation and identification of pathogenic microbes and for the determination of their susceptibility to chemotherapeutic drugs.

Prerequisite: An introductory course in microbiology. Note: Students cannot receive course credit for both Medical Microbiology (BIOL 871) and Theories of Infectious Diseases (BIOL 881).

BIOL 881 Theories of Infectious Diseases

An introduction to human infectious diseases based upon assigned readings that emphasize microbial pathogenic mechanisms and contemporary diagnostic techniques. Learning goals are centered on a series of case studies involving the most common infectious diseases affecting humankind.

Prerequisite: An introductory course in microbiology, or permission of the advisor. Note: Students cannot receive course credit for both Medical Microbiology (BIOL 871) and Theories of Infectious Diseases (BIOL 881).

CHEMISTRY COURSE DESCRIPTIONS

For additional Chemistry courses refer to the Master of Science, concentration in Food and Nutrition, Food Science and Nutrition Science section of this catalog.

CHEM 803 Physical Chemistry I

An introduction to the principles of physical chemistry. The topics treated include chemical thermodynamics, phase equilibria, solutions, the kinetic theory of gases, chemical kinetics, electrochemistry, spectroscopy and quantum chemistry.

Prerequisites: PHYS 211-2 Principles of Physics I and II, and two courses in Calculus.

CHEM 804 Physical Chemistry II

An introduction to the principles of physical chemistry. The topics treated include chemical thermodynamics, phase equilibria, solutions, the kinetic theory of gases, chemical kinetics, electrochemistry, spectroscopy and quantum chemistry.

Prerequisites: PHYS 211-2 Principles of Physics I and II, and two courses in Calculus.

CHEM 829 Nutritional Biochemistry/Metabolism

A detailed investigation of protein, lipid, carbohydrate and nucleic acid metabolism in the total scheme of integrated metabolic systems. Direct and circumstantial relationships involving animal and human nutrition in normal and pathological health conditions will be discussed wherever a dietary or nutritional component is involved.

Prerequisite: CHEM 301 Biochemistry or 33.302 Biochemistry I-Structures, Mechanisms, and Analysis.

CHEM 861 Advanced Analytical Chemistry

A discussion of topics selected from recent literature in chromatography, ion selective electrodes and sensors, atomic spectroscopy, surface analysis, Fourier transform methods, computerized data acquisition, data treatment, and laboratory automation.

Prerequisites: CHEM 208 Organic Chemistry II, CHEM 304 Physical Chemistry II, and CHEM 321 Instrumental Analysis, or permission of the instructor.

CHEM 990 Directed Study in Food Science/Nutrition Science

Investigation of a substantial original research topic dealing with food science or nutrition science. Research will conclude with a detailed research report as directed by the graduate advisor.

Prerequisite: Permission of instructor.

EARTH SCIENCES COURSE DESCRIPTIONS

EASC 846 Oceanography

The structure and origin of ocean water basins; the origin and chemistry of seawater; the physical dynamics of the sea including oceanic circulation, waves, and tides; geology of coastal areas; some marine ecology; and management practices for coastal and oceanic environments are covered. Several field trips will supplement lectures. This course is designed for all students interested in the oceans and their preservation.

GEOL 831 Physical Geology

A study of the nature and origin of the minerals and rocks comprising the earth; the geologic evolution of surface features (scenery), taking into account the underlying rock types and structures as well as the surface effects of glaciers, oceans, rivers, volcanoes, and earthquakes; introduction to geologic aspects of environmental issues; and the geology of the solar system. Numerous field trips supplement the lectures and labs. Designed for students wanting to learn more about the formation of landscapes and the limitation of earth resources.

GEOL 837 Workshop in New England Geology

This course will focus on selected basic geological concepts and theories such as the origin of minerals and rocks, plate tectonics and alternative theories, mountain building, and glaciation. The geological evolution of New England will be the theme tying together the elements of the course. Classes will consist of lectures and numerous field trips to outstanding geologic localities. The course is designed as an intensive introduction to geology in the classroom and the field for teachers and others with little or no geologic background.

ENGLISH AS A SECOND LANGUAGE COURSE DESCRIPTIONS

Refer to Master of Education, concentration in Teaching English as a Second Language section of this catalog.

GEOGRAPHY COURSE DESCRIPTIONS

GEOG 812 Geographic Perspectives on the Environment

An introductory survey stressing the geographical approach to the study of man/land relationships. Emphasis is placed on the impact of human activities on the environment and on conflicts between resource exploration and environmental quality. Contemporary utilization, modification by urbanization, and environmental regions are studied.

GEOG 853 Geography of Russia and the Former Soviet Republic

A regional survey of the fifteen successor states of the Soviet Union. Emphasis is on the changing patterns of economic and cultural geography.

GEOG 855 Geography of Sub-Sahara Africa

An examination of the physical and cultural landscape of Africa south of the Sahara, with special emphasis on the native cultures of the area and their influence on the landscape; the revolutionary effects of European interventions and conquests; and the modern political, cultural, and economic climates.

GEOG 856 Geography of the Middle East

Physical, cultural and political environmental conditions which make that realm of instability which exists in Southwest Asia and North Africa.

GEOG 857 Geography of Latin America

Development of modern cultural landscape. Physiographic and climatic patterns; native cultures; problems of economic development and political stability.

GEOG 890 Non-Western Regional Geography: Field Study

An exploration of a non-western geographical region through an actual field study. The focus is on the physical and cultural geography of the visited area, with special emphasis on the significance of historical, cultural, and recreational sites on the changing patterns of economic, political, and cultural geography. Location of region is announced when offered.

GEOG 891 Western Regional Geography: Field Study:

An exploration of a western geographical region through an actual field study. The focus is on the physical, cultural, and historical geography of the visited area, with specific emphasis on the significance of historical, cultural, and recreational sites on the changing patterns of economic, social, and cultural geography. Emphasis is placed on an understanding of differing experiences and perspectives relating to issues of gender, race, and class in the region. Location of region is announced when offered.

GEOG 927 Geographical Perspectives on Non-Western Regions

A spatial analysis of the historical, political, economical, and cultural geography of non-Western regions. The main objective is to provide geographic perspective on current issues resulting from human-environment interaction, geopolitical economics interest and ethnic-religious influences on ideology, socioeconomic and education systems.

GEOG 959 Topics in the Geography of Massachusetts and New England

A historical geographic analysis and present geographical development of Massachusetts and New England as regions of the United States. Specific topics include historical geography, physical landscape analysis, weather and climate, and patterns and issues of the region's economic and urban development.

LITERACY COURSE DESCRIPTIONS

Refer to Master of Education, concentration in Literacy and Language section of this catalog.

MATH COURSE DESCRIPTIONS

Refer to Master of Education, concentration in Math section of this catalog.

Quality Assurance for Biotechnology

Graduate Certificate Programs

Graduate Certificate programs are available in:

Assistive Technology Public Administration

Assistive Technology with School Nutrition Specialist

Advanced Internship Special Needs*

Healthcare Administration STEM Education

Human Resource Management Teaching of English as a Second

Instructional Technology Proficiency Language (TESL)

(online)

Merchandising

*Note: Offered only through the international programs of the C. Louis Cedrone International Education Center

Post-Master's Certificate programs are available in:

Nursing Education Nursing Leadership

Admission Requirements

Applicants applying for most graduate certificate programs at Framingham State University must have earned an undergraduate degree from a regionally accredited college or university, with a minimum undergraduate quality point average (QPA) of 2.70.

Students not meeting this requirement may be reconsidered for admission after completing one (1) prescribed course in the certificate program. Other admission standards may apply depending on the certificate program.

Transfer Credit

No transfer credit is permitted in a certificate program.

Course Requirement Waiver

Students may petition to have one (1) graduate course waived for their certificate program based on graduate coursework completed elsewhere. Student must obtain written approval from the certificate program's advisor.

Time Limits

Students are given up to four (4) calendar years to complete the certificate program. Students who cease taking courses for one (1) fall or spring semester will be considered inactive. Upon returning to active status, they would be readmitted under the curriculum then in place.

Academic Dismissal

Students who are enrolled in a graduate certificate program and receive one grade below B-(2.70) will be subject to immediate dismissal. Upon notification, the student will have one (1) semester to make a formal written appeal of the dismissal to the Graduate Education Council.

Completion Requirements

Students must have a minimum B- (2.70) average or above in the program in order to earn a certificate. Additional requirements may apply depending on the certificate program.

Graduate Certificate

in Assistive Technology with Advanced Internship

The Graduate Certificate in Assistive Technology is focused on ways candidates may address PreK-16 students' global assistive technology needs, including learning (academic/vocational), social, communication, recreation and leisure, daily living and/or environmental access in school, home, and the community. An interdisciplinary team approach that highlights and actively involves the student; the student's family and circle of friends; professional, including teachers, counselors, and therapists; and other professional support personnel are emphasized throughout the program.

Candidates have two options for this certificate. Candidates who have completed INST 986 Introduction to Assistive Technology as part of a degree or other certificate at Framingham State University may apply the requirements for this certificate.

Admission Requirements

The applicant must have earned a baccalaureate degree from a regionally accredited college or university.

The applicant must also have one of the following professional credentials or positions:

- An Initial or Professional License in Moderate Disabilities, Severe Disabilities, Early Childhood, Elementary, or Instructional Technology;
- An Initial or Professional License in teaching in an academic discipline (e.g. English, History, Middle School Mathematics/Science, Physical Education, Reading, Visual Arts);
- An Initial or Professional as School Guidance Counselor, School Social Worker, School Adjustment Counselor, or Special Education Administrator;
- A License as a Rehabilitation Counselor or certification as a Rehabilitation Counselor;
- Licensed or certified professional support personnel (e.g. occupational therapist, physical therapist, or speech/language therapist);
- College/university faculty member or college/university disability services personnel (license/certification not required for individuals in college/university positions).

The applicant must have a minimum of two years' professional experience working with students in any grades/years in the PreK-16 span.

For further information about the Graduate Certificate in Assistive Technology or Assistive Technology with Advanced Internship, please contact the Office of Graduate Admissions at 508-626-4501.

Transfer Credit

No transfer credit is allowed in this certificate program.

Graduate Certificate in Assistive Technology Course Requirements (4):

INST 968	Introduction to Assistive Technology
INST 971	Communication and Academic Access through Assistive Technology
INST 972	Computers and Environmental Controls through Assistive Technology
INST 980	Assistive Technology Assessment Process

Graduate Certificate in Assistive Technology Course Requirements (5):

INST 968	Introduction to Assistive Technology
INST 971	Communication and Academic Access through Assistive Technology
INST 972	Computers and Environmental Controls through Assistive Technology
INST 980	Assistive Technology Assessment Process
INST 985	Assistive Technology: Advanced Internship with Seminar

COURSE DESCRIPTIONS

INST 968 Introduction to Assistive Technology

An exploration of the definitions of assistive technology, and investigates the scope of assistive technology services and devices and their applications for use in the home, school, workplace and community activities. Students examine current research and development in the field. Students study federal and state laws and regulations regarding assistive technology, and identify local funding sources and funding issues. Students develop knowledge of occupational therapy and physical therapy and the role of the therapists in the assistive technology service planning process. Students practice effective communication and collaborative skills; develop skills in working with individuals and families using a client-centered process that fosters self-determination; develop cross-cultural competence to work with clients from diverse cultural backgrounds; and examine ethical and related professional issues.

INST 971 Communication and Academic Access through Assistive Technology

An in-depth examination of input and output assistive technologies for communications, including Augmentative & Alternative Communication (AAC), and assistive technologies used by students with disabilities in PreK-16 settings for accessing, using and demonstrating learning in the genera; and specialized curricula, with a focus on reading, writing, and mathematics. Attention is paid to computer, tablet, and smart-phone assistive technology options, related hardware, and software applications (apps). Case studies are used throughout the course. A required lab component is also included. NOTE: The lab component in this course does not meet the science lab requirement for the special education license.

Prerequisite: INST 968 Introduction to Assistive Technology.

INST 972 Computers and Environmental Controls through Assistive Technology

An in-depth examination of input and output devices for computers, peripherals, and control devices, including off-the-shelf, customized, and modified options. Assistive technology for mobile technology and other devices is examined. Environmental access and control, including an introduction to adapted driving resources, are addressed. Specialized knowledge and skills that occupational therapists and physical therapists provide is examined (e.g. seating and positioning, ergonomics) in the context of the multi-disciplinary team. A required lab component and required field trips are also included. NOTE: The lab component in this course does not meet the science lab requirement for the special education license.

Prerequisite: INST 968 Introduction to Assistive Technology.

INST 980 Assistive Technology Assessment Process

An examination of a variety of assistive technology assessment protocols and tools. Participants practice using informal and formal observational techniques and other assessments, interpreting findings, and recommending assistive technology options based on assessment findings. Emphasis is placed on ways to actively involve the user in the assessment process. Specialized areas, such as personal care, clothing options, and needs of individuals with low incidence disabilities (e.g. sensory impairments) are also examined. Participants in this course are required to complete a 25-hour field experience along with and one or more field trips.

Prerequisite: INST 971 Communication and Academic Access through Assistive Technology and INST 972 Computers and Environmental Controls through Assistive Technology.

INST 985 Assistive Technology: Advanced Internship with Seminar

A 150-hour internship experience working with one or more PreK-16 students and (where appropriate) their families to develop an Assistive Technology plan: identify and assess skills and needs, recommend and prioritize solution options, identify funding sources (as needed), organize and evaluate product trials, and provide training for selected solution(s). Candidates may also elect to develop new products that address PreK-16 students' needs. Self-determination resources for PreK-16 students are addressed. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) requirements for Assistive Technology Professional (ATP) certification are examined. Candidates are required to attend the seminar component (16 contact hours) of the this course

Prerequisite: INST 980 Assistive Technology Assessment Process.

Graduate Certificatein Healthcare Administration

The Graduate Certificate in Healthcare Administration program is designed for individuals who would like to gain a solid foundation in healthcare administration topics as a means to explore a career in healthcare administration, develop specific healthcare management skills, or to take the first steps to pursuing a master's degree in healthcare administration. Students who successfully complete the certificate program can later apply these courses to the Master of Healthcare Administration program, once an application has been submitted and accepted. The Certificate program is composed of five (5) graduate-level healthcare administration courses covering healthcare management and delivery, laws and regulations, strategic planning, finance and informatics and technology.

Admission Requirements

The certificate program is open to individuals who have earned a baccalaureate degree in any field from a regionally accredited college or university.

Applicants must:

- 1. submit a completed Graduate Certificate Application form
- 2. have an undergraduate GPA of 2.70 or higher.
- 3. submit official transcripts of all undergraduate and graduate work
- 4. submit a Statement of Purpose which includes the applicant's professional goals
- 5. provide two Letters of Recommendation

For further information about the Graduate Certificate in Healthcare Administration, please contact the Office of Graduate Admissions at 508-626-4501.

Transfer Credit

No transfer credit is permitted in this certificate program.

Learning Outcomes

Upon completion of the Graduate Certificate in Healthcare Administration program, students will have acquired the foundational knowledge and skills necessary to manage healthcare services, resulting in their abilities to:

- identify all aspects of the healthcare system and its development, policy, laws, regulations, and ethics;
- integrate into practice the theory and application of healthcare economics and financing, insurance, operational considerations and budgeting;
- develop, monitor, and evaluate a healthcare strategic plan;
- integrate healthcare informatics and technology into the records management system; and
- collaborate and communicate effectively and professionally with all stakeholders.

Certificate Course Requirements (5):

To be awarded the Graduate Certificate in Healthcare Administration, students must complete the following five (5) courses with a grade of "B-" (2.70) or better:

HCAD 909	Healthcare Delivery System, Policy and Reform
HCAD 917	Health Law, Regulations, and Ethics
HCAD 920	Strategic Planning of Healthcare Services
HCAD 924	Healthcare Economics and Financing
HCAD 940	Healthcare Informatics and Technology

COURSE DESCRIPTIONS

HCAD 909 Healthcare Delivery System, Policy and Reform

An overview of American healthcare services since their inception to the present. Emphasis is on public and private hospitals, clinics and HMOs; healthcare insurance, Medicare and Medicaid; and healthcare policy, legislation and reform.

HCAD 917 Health Law, Regulations, and Ethics

An examination of the laws, administrative regulations, and ethical issues of healthcare services. Topics include laws regarding patient access, fraud, public and private funding; liability and risk management; licensing and accreditation; legal issues concerning patient safety and rights, HIPAA, and medical error; and ethical issues related to healthcare services.

HCAD 920 Strategic Planning of Healthcare Services

An overview covering the development and implementation of strategic plans for healthcare facilities. Topics include: models for healthcare services and support systems; organizational and service planning; fiscal planning, capital improvements and investments; and assessment of organizational strengths and weaknesses.

HCAD 924 Healthcare Economics and Financing

An overview of the economics and financing of healthcare services that includes consumers, suppliers, insurance companies and HMOs. Topics include Healthcare Consumption Demand; Health Care Services Supply; economics of hospital operations, long-term care and cost containment; pre-paid health services and regulatory approaches based on prospective payment systems; strategies to ensure equitable access to health services; and measures to control healthcare and health insurance costs. The course compares accounting systems of both non-profit and for-profit healthcare facilities.

HCAD 940 Healthcare Informatics and Technology

An introduction to the role of healthcare informatics and technology in today's health care industry. Topics include the management and financing of electronic health records; aligning healthcare information technology with healthcare reform; the health care claim cycle; the changing patient landscape, rise of retail clinics, and interfacing technology systems; the role of professional associations, state regulations and solution vendors; and the role of health-care information technology in documenting and protecting providers.

Graduate Certificate in Human Resource Management

The Graduate Certificate in Human Resource Management is available through the Department of Economics and Business Administration. The certificate is designed for persons who are currently working in the field of human resource management or who aspire to work in this field.

Admission Requirements

The applicant must have earned a baccalaureate degree from a regionally accredited college or university.

For further information about the Graduate Certificate in Human Resource Management, please contact the Office of Graduate Admissions at 508-626-4501.

Transfer Credit

No transfer credit is allowed in this certificate program.

Certificate Course Requirements (5):

MGMT 900	Foundations of Human Resource Management
MGMT 922	Employment Law
MGMT 934	Human Resource Information Systems
MGMT 955	Compensation and Performance Management
MGMT 963	Employee Benefits

COURSE DESCRIPTIONS

MGMT 900 Foundations of Human Resource Management

An overview of the major functional areas of human resources management. The student develops an understanding of the mission, role and major responsibilities of strategic human resources in achieving the objectives of the organization. The course covers the functional areas of human resource planning, recruitment and selection, training and development, performance appraisal, compensation and employee benefits government regulation compliance.

MGMT 922 Employment Law

This course is an investigation of the legal perspective of employer/employee relationship in today's complex business environment. Most aspects of federal and state laws related to employment relationship at all stages of the employment process are covered in detail from both business and human resources viewpoints.

Prerequisite: MGMT 900 Foundations of Human Resource Management

MGMT 934 Human Resource Information Systems

An overview of human resource information systems (HRIS) focused on strategic drivers for HRIS, selection, planning, system design and change management. Students are introduced to technology terms and key concepts, as well as procedures for evaluating, implementing and managing technology solutions in a business enterprise. Students also consider related ethical issues and emerging trends.

Prerequisite: MGMT 900 Foundations of Human Resource Management.

MGMT 955 Compensation and Performance Management

A comprehensive overview of compensation in the HR function whose goal is to assist students making compensation programs effective and competitive in a changing marketplace. Topics covered include fundamentals of base pay, deferred compensation, executive compensation, job analysis, job evaluation, market analysis, salary ranges, legal and regulatory compliance, incentives, pay for performance, merit pay, performance management, appraisal methods (including errors in performance appraisals), salary surveys and total compensation. In addition, the course also explores the role of variable compensation, with a focus on using variable compensation to more effectively focus employee efforts and better align compensation costs with organizational performance. Note: Students may not receive credit for both this course and either MGMT 952 Performance Appraisal or MGMT 953 Compensation Administration.

Prerequisite: MGMT 900 Foundations of Human Resource Management.

MGMT 963 Employee Benefits

Explores the role of employer-provided benefits as a part of the modern human resources function. The class examines the history of employee benefits in the U.S., the increasing cost of benefits during the last 30 years, the legislative environment, how benefits are integrated as a part of the total compensation, and the emergence of outsourcing as a delivery mechanism. The class also examines retirement and savings plans as well as health and welfare plans. Topics covered are plan design, cost containment, funding, legal compliance, administration, share services, employee and manager self-service, and total benefit outsourcing.

Prerequisite: MGMT 900 Foundations of Human Resource Management.

Graduate Certificate Instructional Technology Proficiency

NOTE: All courses are offered online.

The Graduate Certificate in Instructional Technology Proficiency is a part of the Curriculum and Instructional Technology Program under the Massachusetts Department of Elementary and Secondary Education. The focus of the certificate is on the integration of current and emerging technology tools into classroom instruction. It is designed for school personnel who want to further their knowledge and skills in the use of technology in teaching elementary, middle, and high school students. The certificate is also appropriate for classroom supervisors who are responsible for evaluating technology integration but who have not had the benefit of formal technology courses. This program does not lead to any type of educator licensure in Massachusetts.

All courses leading to this certificate are offered online.

Admission Requirements

Individuals holding a teacher licensure or who work in an educational setting are eligible to apply for admission. The applicant must have earned a baccalaureate degree from a regionally accredited college or university.

Transfer Credit

No transfer credit is allowed in this certificate program.

Curriculum Requirements (4):

INST 941 Internet for 21st Century Teaching and Learning

INST 943 Impact of Technology on Education

Choose two (2) from the following:

INST 951 Mathematics Instruction with Technology INST 954 Technology Infrastructure Management

INST 959 Systemic Change: Curriculum, Instructional Technology, and

Professional Development.

INST 968 Introduction to Assistive Technology

COURSE DESCRIPTIONS

INST 941 Internet for 21st Century Teaching and Learning

Designed for educators to accomplish the following: conduct effective searches by employing defined strategies using search directories, search engines, virtual libraries, specialized and proprietary databases and library catalogs; evaluate educational websites detailing its veracity, appropriateness, and educational value; examine important issues related to the classroom including academic integrity, Internet safety, and related student behavior to provide a safe, secure and excellent educators; explore online tools to support a web-enhanced and/or online classrooms; and create and publish a web-based inquiry-oriented classroom project. Participants develop and execute lesson plans that merge current curriculum standards and technology. Students begin development of an electronic portfolio to document their field-based experience.

INST 943 Impact of Technology on Education

A critical examination of the impact of using technology resources in the classroom including adaptive and assistive technologies and online tools. Students study critical thinking within a technological environment and incorporate them into curriculum. Students create model lessons that are technology-rich and project based and include outstanding web resources. These lessons integrate graphic organizers, newsletters, and presentations. Students examine the direction of federal, state and district technology plans, learning styles and research proven instructional strategies that use technology and integrate into lessons. Students continue the development of electronic portfolio to document their field-based experiences.

Prerequisites: INST 941 Internet for Educators.

INST 951 Mathematics Instruction with Technology

A course that identifies the mathematical content of the K-12 school curriculum as defined by the Massachusetts Curriculum Framework. Students learn how to use technology to enhance the teaching of mathematics. The Internet is utilized to conduct research for mathematical knowledge and technological pedagogical applications. NOTE: Students may not receive credit for both this course and 84.952 Technology for Mathematics and Science Instruction.

Prerequisites: INST 941 Internet for Educators and INST 943 Impact of Technology on Education, or permission of the instructor.

INST 954 Technology Infrastructure Management

Designed to provide teachers with the strategies for maintaining and troubleshooting their computers by using a series of hands-on activities. Topics include computer hardware and peripherals, operating systems, system administration tools, networking, network management, and troubleshooting. A series of discussions are held about the issues facing technology leaders including computer donations, Internet safety, spyware, asset management, virus protection, and total cost of ownership. Through extensive discussion and project-based assignments, differentiated experiences are provided to meet the diverse needs of the students in this class. Students continue the development of an electronic portfolio to document their field-based experiences.

Prerequisites: INST 941 Internet for Educators and INST 943 Impact of Technology on Education.

INST 959 Technology and Professional Development

Designed as a capstone course about designing and implementing change. Students explore the process of change as it relates to technology integration and other improvements in a classroom, school, or district. Participants consider the professional standards that address technology integration and professional development, as well as the ethical, legal and human dimensions of such a change. They explore the roles of supervisors, school councils and administrators within the context of strategic educational planning. They also explore leadership and supervisory approaches to the redesign of instruction through emerging and online technologies, even within the context of limited financial resources and administrative preoccupation with other matters. Students continue the development of an electronic portfolio to document their field-based experiences.

Prerequisites: Completion of all concentration courses (INST 941, INST 943, INST 951, INST 954) and permission of the advisor.

INST 968 Introduction to Assistive Technology

An exploration of the definitions of assistive technology, and investigates the scope of assistive technology services and devices and their applications for use in the home, school, workplace and community activities. Students examine current research and development in the field. Students study federal and state laws and regulations regarding assistive technology, and identify local funding sources and funding issues. Students develop knowledge of occupational therapy and physical therapy and the role of the therapists in the assistive technology service planning process. Students practice effective communication and collaboration skills; develop skills in working with individuals and families using a client-centered process that fosters self-determination; develop cross-cultural competence to work with clients from diverse cultural backgrounds; and examine ethical and related professional issues.

Graduate Certificate in Merchandising

The Graduate Certificate in Merchandising is offered through the Department of Consumer Sciences: Fashion Design and Retailing Program. The certificate provides specialization for retail managers, merchandisers, fashion designers, educators, and those interested in the industry who already have completed an undergraduate program.

The certificate is intended for individuals who are:

- Employed in the field and need to enhance their theory knowledge and practical skills in specific areas relevant to their present position or future responsibilities.
- Interested in studying merchandising but cannot commit to a long-term program of study or a master's degree program.

Admission Requirements

Applicants must have a bachelor's degree from an accredited university or college. Interested individuals with backgrounds in a range of disciplines, including apparel design and fashion merchandising are welcome to apply.

Transfer Credit

No transfer credit is allowed in this certificate program.

Undergraduate Prerequisite Course

FASH 646 Fashion Merchandising: Process and Practice*

Curriculum Requirements

FASH 916	Fashion and Retail Theory
FASH 927	Research Methods in Merchandising
FASH 936	Retailing and Consumerism
FASH 947	Global Market: Dynamics of Retailing
FASH 980	Retail Strategies and Merchandise Management

Course Sequencing

This certificate requires courses to be taken in a particular sequence with FASH 916 Fashion and Retail Theory and FASH 927 Research Methods in Merchandising as prerequisites for FASH 936 Retailing and Consumerism and FASH 947 Global Markets: Dynamics of Retailing. The Certificate is completed with the capstone course, FASH 980 Retail Strategies and Merchandise Management.

COURSE DESCRIPTIONS

FASH 646 Fashion Merchandising: Process and Practice

An overview of the flow of the apparel and home furnishings industry as traced from design inspiration to retail customer. Industry resources related to product manufacturing and innovation are presented. Students explore the interrelationship of fibers, yarns, fabric structures, and finishes on textile products to develop an understanding of product differentiation. The effect of consumer issues on industry regulations, design trends, and technological advancements are discussed. Course may be waived for industry experience or collegiate coursework.

Prerequisite: Acceptance into the Graduate Certificate in Merchandising

FASH 916 Fashion and Retail Theory

A study of theories related to the fashion industry and how it operates in modern society. Changes in consumer demand for retail merchandise are analyzed using economic and fashion diffusion theories. Retail strategies in administrative management, merchandise management, and store management are explored. Topics include retail communication, channels of operation, supply chain management, and customer relations programs.

Prerequisite: FASH 646 Fashion Merchandising: Process and Practice

FASH 927 Research Methods in Merchandising

A study of concepts, constructs, models, and theories related to the retail industry. Theory, practice, and application of the research process are analyzed. Topics include the preparation of literature reviews, conducting field research, and data presentation techniques. Emphasis is placed on research instrument development.

Prerequisite: FASH 646 Fashion Merchandising: Process and Practice

FASH 936 Retailing and Consumerism

A study of consumer behavior and the effects on the retail environment. Understanding the consumer has become vital to retail success. The consumer is examined in relation to demographic, psychographic, and lifestyle segmentation. Theories from diverse academic disciplines are used to examine the consumer's attitudes, motivations, and desires. Topics include self concept, shopping patterns, product meaning, and brand congruence.

Prerequisite: FASH 916 Fashion and Retail Theory

FASH 947 Global Markets: Dynamics of Retailing

A study of the global interdependence of the retail industry. The industrial, social, and economic conditions in the major manufacturing nations are explored in relation to global product production. Factors such as sourcing, import/export of products, international trade regulations, and cultural business practices are examined. Emphasis is placed on the production of textiles and consumer goods for the US retail industry.

Prerequisite: FASH 927 Research Methods in Merchandising

FASH 980 Retail Strategies and Merchandise Management

A study of the current practices in constructing a formal business plan. A well researched business plan is required for the acquisition of funding for a new business or expansion of a current retail enterprise. A buying plan is developed utilizing both unit and dollar planning techniques. Topics include Competitive Positioning Strategy, Geographic Information Systems, Open-to-Buy, and Budget Planning Methods.

Prerequisite: FASH936 Retailing and Consumerism, FASH 947 Global Market: Dynamics of Retailing, and Permission of Instructor.

Graduate Certificate in Public Administration

The Graduate Certificate in Public Administration program provides students with the essential knowledge and skills needed to meet the administrative and management challenges of today's public sector and nonprofit organizations. It is designed for individuals who would like to gain a solid foundation in public administration topics for career transition or advancement into the public or nonprofit sectors, or to take the first step toward pursuing a master's degree in public administration. Courses in the program build the knowledge base necessary for decision making, planning, administrative effectiveness, budgeting, and critical thinking, as well as the management and leadership skills essential for success. Students who successfully complete the certificate program can later apply these courses to the Master of Public Administration degree program (MPA), once an application has been submitted and accepted. The certificate program is composed of five (5) graduate-level courses, three of which are core courses and two of which are electives.

Admission Requirements

The certificate program is open to individuals who have earned a baccalaureate degree in any field from a regionally accredited college or university.

Applicants must:

- 1. submit a completed Graduate Certificate Application form
- 2. have an undergraduate GPA of 2.70 or higher.
- 3. submit official transcripts of all undergraduate and graduate work
- 4. submit a Statement of Purpose which includes the applicant's professional goals
- 5. provide two Letters of Recommendation

For further information about the Graduate Certificate in Public Administration, please contact the Office of Graduate Admissions at 508-626-4501.

Transfer Credit

No transfer credit is permitted in this certificate program.

Certificate Course Requirements (5):

Students must earn an overall GPA of 3.0 or higher for successful completion of the certificate. A student shall be dismissed upon a grade of "F" or when the student's GPA remains below 3.0 for two consecutive semesters. To be awarded the Graduate Certificate in Public Administration, students must complete all courses with a grade of "B-" (2.70) or better.

Core Courses:

PADM 901	Foundations of Public Administration
PADM 929	Techniques of Policy Analysis
PADM 937	Techniques of Public Budgeting & Resource Management

Choose Two (2) Electives from the following:

MGMT 904	Management and Leadership
PADM 911	Grantsmanship and Development
PADM 932	Managing Public Sector Projects
PADM 957	Risk Management and Fiscal Analysis
PADM 981	Personnel Management in the Public Sector

COURSE DESCRIPTIONS

MGMT 904 Management and Leadership

Addresses managerial and leadership styles and the dynamics of organizational behavior. Topics include: managerial effectiveness strategies, leadership styles, organizational structuring issues, interpersonal relationships, and the building and managing of teams.

PADM 901 Foundations of Public Administration

Concerned with the nature and functioning of the public administrative process. The goals of the course are: (1) to develop an understanding of administrative behavior in the public sector, and (2) to understand how administrative behavior and structure affects the making, implementing, and managing of public programs and policies. The course serves as a survey of the fundamental concepts and issues of public administration and management. The course format consists of a case study approach. A substantial part of the weekly meetings are devoted to practical exercises and cases. Role playing, simulation, and case analysis are emphasized. Class participation is an essential and important part of the course.

PADM 911 Grantsmanship and Development

This course covers fund-raising activities, and includes preparation of proposals to federal and local agencies, corporations and private foundations; and the planning and supervising of special fundraising events, capital campaign and annual drives, purchasing and operating endowments, and membership drives. Students will learn how to prepare realistic budgets and how to write successful proposals.

PADM 929 Techniques of Policy Analysis

This is an introductory course in public policy analysis. In addition to surveying the politics of the policy-making process, the course will develop a framework of principles for making policy decisions and examine general analytical methods useful for the decision process. Topics will include module survey techniques, benefit-cost analysis and the role of the analysis as an alternative to political power.

PADM 932 Managing Public Sector Projects

Designed to provide public and non-profit managers with the understanding and skills required to manage public projects in the contemporary environment of public/private partnerships, outsourcing, downsizing, and networking. The course provides a framework for the successful management of public projects at all levels of government and on any scale. Among the topics addressed are public sector regulations, contract negotiations, cost estimation, risk analysis, scheduling, monitoring, capital budgeting, procurement, and evaluation.

PADM 937 Techniques of Public Budgeting & Resource Management

Public budgeting will be studied in this course as a political process which attempts to plan, coordinate and control the allocation and use of the public resources under conditions of scarcity and uncertainty. While the course is generally designed to present a broad overview of the budgeting function as practiced in a variety of governmental settings, it is specifically designed to focus on budgeting as a management tool. Within this context the student is expected to develop practical knowledge of public budgeting systems and techniques.

PADM 957 Risk Management and Fiscal Analysis

An examination of risk analysis and its importance in helping to ensure that an organization has effective internal fiscal controls. The components of an effective internal control system such as the safeguarding of assets and adequate segregation of duties and responsibilities will be covered. Pertinent laws and regulations will be discussed to increase the practitioner's awareness of the current legal environment and its ramifications to an organization. The course also focuses on the importance of fiscal responsibility. Students learn to use financial statement analysis and the importance of performance measurement in the planning, execution, and reporting processes. Although this course focuses on the public sector, the concepts are applicable to the private sector, hospitals, educational institutions and non-profit organizations.

PADM 981 Personnel Management in the Public Sector

A major concern of any agency is the effective and efficient management of its personnel. To a large extent an organization is an entity consisting of individuals bound together through division goals. A necessary administrative tool of any manager is the ability to recruit, supervise and control members of the organization. This course will focus on membership, staffing, job classification, unionism, productivity, performance evaluation and personnel accountability. Case studies and simulation will be used to emphasize theories and practice of personnel management.

Graduate Certificate

in School Nutrition Specialist

The Graduate Certificate in School Nutrition Specialist (SNS) combines the advanced study of applied nutrition with the development of knowledge, skills and competencies necessary to provide school nutrition services. The certificate is designed for those who wish to fulfill the academic and internship requirements to become a School Nutrition Specialist (SNS). Visit the School Nutrition Association website at www.schoolnutrition.org for information on these requirements and the national credentialing examination.

Certificate Outcomes

Upon completion of the graduate certificate, students will:

- Prepare to assume district level/supervisory positions in school nutrition
- Understand and assess the nutritional needs of diverse populations, especially of school-aged children at risk and of limited income
- Perform the variety of tasks required for operating successful school foodservice programs
- Prepare to communicate effectively in interactions with other professionals and stakeholders
- Be prepared to sit for the national Nutrition Specialist Credentialing Exam.

Admission Requirements

- Applicants must have earned a baccalaureate degree in a related field from a
 regionally accredited college or university and must submit an official transcript
 from each college or university attended as an undergraduate or graduate student.
 Bachelor's degree in a related field includes: food and nutrition, hospitality, or
 business with coursework covering the following areas:
 - Basic nutrition (course must be within last 5 years) or NUED 910 Nutrition
 Science in the Classroom
 - Foodservice systems
 - Management
 - Basic financial and cost accounting
- Applicants are required to possess an overall grade point average (GPA) of at least 2.75 on a 4.00 scale.
- Current Manager ServSafe Certification (or equivalent) good through expected date for completion of program.
- Applicants must provide two letters of recommendation from professors, supervisors, and/or colleagues, submitted with the Framingham State University Letter of Recommendation form and sent directly to the University by the recommender.
- Applicants must submit a typed, 300-word personal statement discussing their motivation for seeking the School Nutrition Specialist certification in view of prior formal education, current job responsibilities, and career plans.
- Personal or phone interview required.

Applicants are evaluated based on numerous factors including previous college coursework; letters of recommendation; and personal statement.

For further information about the Graduate Certificate in School Nutrition Specialist, please contact the Office of Graduate Admissions at 508-626-4501.

Transfer Credit

No transfer credit is permitted in this certificate program.

Certificate Course Requirements (3):

NUED 900	Leadership in Excellence in School Nutrition
NUED 901	Seminar and Practicum I in School Nutrition
NUED 902	Seminar and Practicum II in School Nutrition

COURSE DESCRIPTIONS

NUED 900 Leadership in Excellence in School Nutrition

A study of the core functions of state child nutrition programs. These include nutrition promotion, nutrition standards, institution and participant eligibility for participation and benefits, compliance and accountability, financial management, reporting/recordkeeping, safety, sanitation and emergency management, training and technical assistance, and state administration of state child nutrition agencies. Laws, regulations, and policies are addressed. This course is designed to develop leadership and partnering skills to influence the quality of nutrition programs and the effective use of resources.

Prerequisites: Acceptance into the graduate certificate program in School Nutrition Specialist.

NUED 901 Seminar and Practicum I in School Nutrition

A concentrated and supervised internship in an approved school nutrition site coordinated with online weekly seminars. Students develop knowledge, skills, and competencies necessary to provide school nutrition services as outlined in the School Nutrition Association's Keys to Excellence program areas of Administration, Communications and Marketing, Nutrition and Nutrition Education, and Operations and the School Foodservice and Nutrition Specialist Credentialing Exam Study Guide. Student interns demonstrate the ability to communicate, collaborate, work in teams to solve problems, and apply critical thinking skills. Students are required complete a minimum of 450 hours/semester. NOTE: Students must provide proof of eligibility to work in United States; Serve Safe Certification; State criminal offender record information (CORI). Liability insurance is required. Students must meet any individual worksite regulations.

Prerequisites: Acceptance into the graduate certificate program in School Nutrition Specialist.

NUED 902 Seminar and Practicum II in School Nutrition

A continuation of the concentrated and supervised internship in Seminar and Practicum I in School Nutrition coordinated with online weekly seminars that further develop leadership and management skills. Students typically continue at the same site as Seminar I. Students develop knowledge, skills, and competencies in administration and management necessary to provide school nutrition services as outlined in the School Nutrition Association's Keys to Excellence program areas of Administration, Communications and Marketing, Nutrition and Nutrition Education, and Operations and the School Foodservice and Nutrition Specialist Credentialing Exam Study Guide. Student interns demonstrate the ability to communicate, collaborate, work in teams to solve problems, and apply critical thinking skills. Students are required to complete a minimum of 450 hours/semester at a child nutrition program site plus preparation of written assignments and weekly seminar discussions. NOTE: Students must provide proof of eligibility to work in United States; Serve Safe Certification; State criminal offender record information (CORI). Liability insurance is required. Students must meet any individual worksite regulations. Prerequisites: NUTR 901 Seminar & Practicum I in School Nutrition.

Graduate Certificate in Science, Technology, Engineering, and Mathematics (STEM) Education

The Graduate Certificate in Science, Technology, Engineering and Mathematics (STEM) Education is designed to broaden the knowledge and deepen the understanding of content for middle and high school science, technology/engineering and mathematics teachers. The certificate is only available through participation in the Leadership Initiatives for Teachers and Technology (LIFT²) program, which is sponsored by the Metro South/West Regional Employment Board, are STEM businesses externships in technology, life-science and engineering companies to enhance teacher knowledge and instructional practice.

Admission Requirements

The applicant must have earned a baccalaureate degree from a regionally accredited college or university, be employed as a teacher, and be participating in the LIFT program.

Curriculum Requirements

The following three (3) courses are required for the Certificate in STEM Education:

EDUC 914 Advanced Instructional Theory and Practice

INST 943 Impact of Technology in Education

EDLE 970 Curriculum Design, Practice, and Assessment

The engineering component of the Graduate Certificate in STEM Education is addressed through the externship experience and a series of research-based resources that are used within the coursework.

For further information about the Graduate Certificate in STEM Education please contact Jim Stanton, Academic Director of the LIFT Program: jstanton@mswreb.org

COURSE DESCRIPTIONS

EDUC 914 Advanced Instructional Theory and Practice

Deals with curriculum development in mathematics, science, and technology; with the design and implementation of instructional strategies including use of appropriate technology; with the effective use of instructional resources; and with developing an advanced level of evaluation skills. Emphasizes curriculum integration and problem-solving approach to effective teaching.

INST 943 Mathematics and Science

A critical examination of the impact of using technology resources in the classroom including adaptive and assistive technologies and online tools. Students study critical thinking within a technological environment and incorporate them into curriculum. Students create model lessons that are technology-rich and project-based and include outstanding web resources. These lessons integrate graphic organizers, newsletters, and presentations. Students examine the direction of federal, state and district technology plans, learning styles and research proven instructional strategies that use technology and integrate into lessons. Students continue the development of an electronic portfolio to document their field-based experiences.

Prerequisite: INST 941 Internet for 21st Century Teaching and Learning

EDLE 970 Curriculum Design, Practice and Assessment

Provides students with a curriculum update in the major subjects of schooling with special emphasis on student assessment, teaching strategies, learning styles and interdisciplinary curriculum development. Students create a model for designing, implementing, and evaluating curriculum in a chosen discipline. Curriculum concepts are integrated in ways which are meaningful to various cultural groups and minorities. Factors which determine the success of curriculum change, including a needs assessment, will be considered.

Graduate Certificate in Special Needs

Note: Offered only through the international programs of the C. Louis Cedrone International Education Center

The Graduate Certificate in Special Needs is designed for overseas teachers in inclusive general education classes in elementary, middle and secondary settings. Other individuals who may benefit from participation in this certificate program are administrators and interested parents.

Admission Requirements

Applicants applying for a graduate certificate must have earned an undergraduate degree from a regionally accredited college or university with a minimum undergraduate grade point average of 2.70. Students not meeting this requirement may be reconsidered for admission after completing one (1) prescribed course in the certificate program.

Transfer Credit

No transfer credit is allowed in this certificate program.

Curriculum Requirements

The following four (4) courses are required for the Certificate in Special Needs:

SPED 908	Fundamentals of Teaching
SPED 956	Curriculum Development and Modification
SPED 962	Developmental Patterns of Children with Special Needs
SPED 963	Behavior and Classroom Management

Completion Requirement

Students must have a minimum B- (2.70) average or above in the certificate program in order to graduate.

For further information about the Graduate Certificate in Special Needs, please contact Joyce Fahey, Associate Director of the C. Louis Cedrone International Center, <u>ifahey@framingham.edu</u>.

COURSE DESCRIPTIONS

SPED 908 Fundamentals of Teaching

Provides fundamentals of effective teaching practices that promote access to the general curriculum for students with disabilities and other diverse needs in general education and special education settings. The focus is on understanding students as learners while exploring a variety of approaches, strategies, and adaptations to interaction, instruction, learning activities, and assessment. Emphasis is on the teacher's roles, tasks, and responsibility for designing, organizing, and managing delivery of instruction using research-based practices such as Universal Design for Learning, differentiated instruction and individual accommodations.

SPED 956 Curriculum Development and Modification

Examines various curriculum designs to determine realistic goals for students with different learning styles. Classroom structure and design, cooperative learning, peer tutoring, social skills coaching, alternative communication approaches, and team teaching are strategies that are explored. Emphasis is placed on collaborative planning of curriculum units (academic, vocational, life skills), by the interdisciplinary team that address the needs and strengths of each student. Students develop curriculum units, conduct field tests, evaluate and modify their plans.

SPED 962 Developmental Patterns of Children with Special Needs

Reviews the developmental sequence from birth through adulthood with emphasis on understanding various pervasive and developmental delays and disabilities. Appropriate educational planning that supports the cognitive, linguistic, social/emotional, and physical growth of students in an integrated setting will be examined. Particular emphasis is placed on the interdisciplinary team approach that supports collaboration between the general education classroom teacher and other personnel to provide an appropriate program for students with special needs.

SPED 963 Behavior and Classroom Management

Designed to familiarize students with management strategies including behavior and psychodynamic approaches appropriate for classroom implementation as well as homeschool behavior management. Many theories are explored with provisions for teachers to select options in order to meet the individual needs of students in a small and large group setting. Class participants learn how outside agencies can be utilized to affect student behavior. Focus is systematic data collection, objective reporting, and various methods of reinforcement to elicit appropriate behavior.

Graduate Certificate in The Teaching of English as Second Language (TESL)

The Graduate Certificate in The Teaching of English as a Second Language is intended for mainstream teachers whose classrooms include English language learners whose limited language level hinders academic performance. The goal of the program is to provide teachers with the theoretical and practical knowledge needed to identify English language learners' needs and promote learning and academic success for these students.

Admission Requirements

The applicant must have earned a baccalaureate degree from a regionally accredited college or university, with a minimum undergraduate grade point average of 2.80.

For further information about the Graduate Certificate in The Teaching of English as a Second Language, please contact Dr. Marguerite Mahler, Modern Languages Department, at mmahler@framingham.edu.

Curriculum Requirements (4):

Required Core Course:

TESL 913 Current Issues in Second Language Acquisition

One (1) course from the following:

TESL 901 Language Structure: Phonetics and Morphology

TESL 902 Language Structure: Syntax, Semantics, and Pragmatics

One (1) course from the following:

TESL 936 The Teaching of Second Language Skills

TESL 948 Teaching Reading and Writing in the English Immersion Classroom

One (1) course from the following:

TESL 920 Technology in the Second Language Classroom

TESL 966 Seminar in Applied Linguistics

COURSE DESCRIPTIONS

TESL 901 Language Structure: Phonetics and Morphology

An introduction to the universal linguistic properties of sound systems and the basic features of the sound system of English. The rules of word formation and aspects of morphological typology are also examined. English is compared and contrasted with other languages. *Note: This course satisfies the M.Ed. in Spanish program requirement of Romance linguistics study.*

TESL 902 Language Structure: Syntax, Semantics, and Pragmatics

An introduction to the ways in which words are organized to form sentences and how words and syntactic structure combine to yield meaning. The combining of sentences into conversations to express a range of attitudes and relationships is also covered. English is compared and contrasted with other languages. Note: This course satisfies the M.Ed. in Spanish program requirement of Romance linguistics study.

TESL 913 Current Issues in Second Language Acquisition

A review of recent research and theories of second-language acquisition and the factors that lead to successful acquisition. The ways in which children cope with multi-linguistic systems and function in school are explored.

TESL 920 Technology in the Second Language Classroom

An exploration of the use of current technologies in teaching and learning in the second language and foreign language classroom. Attention is given to technologies that enhance collaboration, communication, and creativity among learners. Includes the design of lesson plans that incorporate technologies such as Wikis, Blogs, Podcasts, and other collaborative web-based tools for classrooms.

TESL 936 The Teaching of Second Language Skills

An examination of the theories and sheltered principles for developing the language skills of listening, speaking, reading, and writing for second language learners. Special attention is given to second language learners in bilingual or multilingual classrooms. Language assessment instruments are studied. Individual and social variables that affect performance are treated. The incorporation of the Massachusetts Curriculum Frameworks into lesson plans is emphasized. Note: Students cannot receive credit for both this course and either TESL 918 The Teaching of English Language Skills or TESL 955 Advanced Instructional Techniques in the Teaching of Foreign/Second Language.

TESL 948 Teaching Reading and Writing in the English Immersion Classroom

Explores reading theory and research and their application in shaping and developing literacy skills in English language learners. Balanced reading instruction, specific sheltered English literacy strategies that include vocabulary development, and measures for assessing literacy skills form the core of this course.

TESL 966 Seminar in Applied Linguistics

An advanced seminar whose topics change from term to term. Topics in sociolinguistics, psycholinguistics, discourse analysis, and conversational analysis are considered.

Graduate Certificate in Quality Assurance for Biotechnology

The Graduate Certificate in Quality Assurance for Biotechnology may be earned separately or as part of the Professional Science Master's (PSM) program in Biotechnology and offers life science professionals foundational training for a role in Quality Assurance in Biotechnology. The certificate consists of five courses that combine training in quality assurance with applicable scientific concepts and regulatory affairs and provide a foundation for successful liaison with the various departments involved in quality assurance within an organization.

Certificate Outcomes

Upon completion of the graduate certificate, students will:

- Acquire discipline-specific knowledge about biotechnology and related subdisciplines.
- Meet and network with contacts within the biotechnology industry.
- Increase their potential for employment and success within the field of Quality Assurance.

Admission Requirements

The certificate program is open to individuals who have earned a baccalaureate degree in a life sciences field (with coursework in statistics and biochemistry, molecular biology, cell biology, or genetics) from a regionally accredited college or university.

Applicants must:

- 1. submit a completed Graduate Certificate Application form
- 2. have an undergraduate GPA of 2.50 or higher.
- 3. submit official transcripts of all undergraduate and graduate work
- 4. submit a Statement of Purpose which includes the applicant's professional goals
- 5. provide two Letters of Recommendation

For further information about the Graduate Certificate in Quality Assurance for Biotechnology, please contact the Office of Graduate Admissions at 508-626-4501.

Transfer Credit

No transfer credit is allowed in this certificate program.

Certificate Course Requirements (5):

DIOT 002

BIOT 903	Drug Development: Process and Regulations
BIOT 908	Quality Assurance and Quality Control for Biotechnology and Biopharmaceuticals
BIOT 930	Biotechnology Laboratory Techniques
MATH 924	Advanced Biostatistics
MGMT 921	Business Operations Management for Biotechnology

COURSE DESCRIPTIONS

BIOT 903 Drug Development: Process and Regulations

Designed to provide students with an overview of drug development, for both small molecules and biotherapeutics. The course emphasizes the diverse set of activities in pharmaceutical development; discusses key stages and decisions points in the process; and details the importance of quality control and meeting regulatory requirements. Case studies are presented by guest lecturers from the pharmaceutical and biotechnology industry to illustrate the complexities of drug development.

Prerequisite: Acceptance in the certificate program Quality Assurance for Biotechnology.

BIOT 908 Quality Assurance and Quality Control for Biotechnology and Biopharmaceuticals

An examination of the application of quality practices in the development, manufacturing, control and assessment of products in the biotechnology and biopharmaceutical industries. Students learn the principles of QSR (Quality Systems Requirements) as they apply to the procurement of materials and the manufacture, validation and release of products. Through the use of case studies, the course presents the commonalities of QSR and the application of GMP (Good Manufacturing Practices) for all product types, as well as the specific requirements and differences among biologics, small molecules and devices.

Prerequisite: Acceptance in the certificate program Quality Assurance for Biotechnology.

BIOT 930 Biotechnology Laboratory Techniques

An exposure to techniques commonly used in the biotechnology industry. It focuses on the use of cell culture in the production of biologically active products. The course emphasizes sterility, purification, assay of a final product, and documentation. Discussion of Good Laboratory Practices and designing lab techniques to meet regulations are included. The course requires written analysis of data. Laboratory (4 hours).

Prerequisite: Acceptance in the certificate program Quality Assurance for Biotechnology.

MATH 924 Advanced Biostatistics

Designed for data interpretation, analysis and statistical application in the biotechnology industry. Students perform analysis of quality and assess risk in making business decisions. It includes discussion of appropriate experimental methods. Students apply statistical analysis software commonly used in biotechnology and professional science industries.

Prerequisite: Acceptance in the certificate program Quality Assurance for Biotechnology.

MGMT 921 Business Operations Management for Biotechnology

Designed for science professionals to develop and apply skills and knowledge for managing business operations. Topics include concepts and techniques for planning, designing, controlling and improving business operations. Real-world business cases are used to develop students' management capacity and capability. Areas of focus include the process view of organizations, performance measures, products and product attributes, production processes, process competencies, procurement and supply chain management and regulatory requirements.

Prerequisite: Acceptance in the certificate program Quality Assurance for Biotechnology.

Post-Master's Certificate

in Nursing Education

The Post-Master's Certificate in Nursing Education is comprised of four graduate level nursing education courses, including two practicum courses. The certificate provides students with the essential knowledge, skills, and expertise to be effective nursing educators. Graduates may be eligible for the Certified Nurse Education (CNE) Exam offered by the National League of Nursing (NLN).

Certificate Outcomes: Upon completion of the post-master's certificate, students will be able to:

- Analyze the issues and trends in healthcare and higher education and their impact on nursing education.
- Apply theories of education and related sciences and evidence-based practice as a basis for nursing education.
- Participate knowledgeably in the development, implementation, revision, and evaluation of nursing curricula and nursing programs.
- Utilize a variety of teaching methods, technology strategies, and educational resources to facilitate learning in the classroom, laboratory, and clinical areas and to enhance student and staff development.

Admission Requirements

- The program is open to Registered Nurses (RN's) who possess a Master of Science in Nursing (M.S.N.) degree from an NLNAC or CCNE accredited nursing program, with a minimum grade point average of 3.50 on a 4.00 scale.
- Hold a current MA, RI, or NH nursing license
- Provide two letters of recommendation from Master's prepared nurses.
- Personal statement of professional goals.
- Complete the Graduate Certificate Application form to apply for the Post-Master's Certificate in Nursing Education.

For further information about the Post-Master's Certificate in Nursing Education, please contact the Office of Graduate Admissions at 508-626-4501.

Transfer Credit

No transfer credit is permitted in this certificate program.

Certificate Course Requirements (4):

NURE 941	Curriculum Design and Evaluation
NURE 951	Course Development and Implementation
NURE 981	Advanced Teaching Methods (Practicum I)
NURE 991	Application of Technology to Education (Practicum II)

Classes are offered in the hybrid/blended learning format, meeting face-to-face seven to eight times a semester on Tuesdays 5-9pm for students entering in even years or Wednesdays 5-9pm for students entering in odd years.

Fall Semester Year One

NURE 941 Curriculum Design and Evaluation

Spring Semester Year One

NURE 951 Course Development and Implementation

Fall Semester Year Two

NURE 981 Advanced Teaching Methods (Practicum I)

Spring Semester Year Two

NURE 991 Application of Technology to Education (Practicum II)

COURSE DESCRIPTIONS

NURE 941 Curriculum Design and Evaluation

An exploration of the application of critical thinking in the design of a nursing curriculum. This course investigates mission, philosophy, conceptual terms, program outcomes, and program evaluation in order to prepare students for the advanced role of a nurse educator. The role of a nurse educator in academic and service areas is explored.

NURE 951 Course Development and Implementation

An investigation of the principles of course development; teaching strategies, including the use of technology; and classroom and clinical evaluation. Ethical and legal issues are explored in relation to nursing education. NOTE: This course can be taken concurrently with NURE 941 Curriculum Design and Evaluation.

Prerequisite: NURE 941Curriculum Design and Evaluation.

NURE 981 Advanced Teaching Methods (Practicum I)

The application of curriculum design, evaluation, course development, and implementation in a teaching practicum in classroom and clinical settings with a nurse educator/preceptor and in seminars with faculty.

Prerequisites: NURE 951 Course Development and Implementation.

NURE 991 Application of Technology to Education (Practicum II)

A practicum to apply current technology to classroom and clinical nursing education to enhance communication, ethical decision-making and critical thinking. Allocation of education resources to meet diverse learning styles, achieve learning objectives and advance evidence-based nursing practice are explored.

Prerequisites: NURC 905 Health Education Resources and Policies, NURC 915 Advanced Technology and Nursing Informatics.

Post-Master's Certificate in Nursing Leadership

The Post-master's Certificate in Nursing Leadership is comprised of four graduate level nursing education courses, including two practicum courses. The certificate will provide students with the essential knowledge, skills, and expertise to be effective nurse leaders and managers in a variety of roles. Graduates may be eligible for the *Nurse Executive* specialty certification through the American Nurses Credentialing Center (ANCC), or the *Clinical Nurse Leader* (CNL) certification through the Commission of Nurse Certifications (CNC), an affiliate of the American Association of Colleges of Nursing (AACN).

Certificate Outcomes: Upon completion of the post-master's certificate, students will be able to:

- Model key behaviors of nursing leadership to execute an effective structured team process
- Apply leadership and management principles in the allocation and organization of personnel and resources in a variety of health care delivery systems.
- Practice leadership skills including communication, decision making, team building, mentoring, and empowerment to successfully assume a nurse leader role.
- Design, implement, and evaluate a change project that contributes to the improved functioning of a healthcare organization.

Admission Requirements

- The program is open to Registered Nurses (RN's) who possess a Master of Science in Nursing (M.S.N.) degree from an NLNAC or CCNE accredited nursing program, with a minimum grade point average of 3.50 on a 4.00 scale.
- Hold a current MA, RI, or NH nursing license
- Provide two letters of recommendation from Master's prepared nurses.
- Personal statement of professional goals.
- Complete the Graduate Certificate Application form to apply for the Post-Master's Certificate in Nursing Education.

For further information about the Post-Master's Certificate in Nursing Education, please contact the Office of Graduate Admissions at 508-626-4501.

Transfer Credit

No transfer credit is permitted in this certificate program.

Certificate Course Requirements (4):

NURL 943	Strategic Planning for Nursing's Future
NURL 953	Role in Health Care Systems
NURL 983	Practicum in Organizational Management (Practicum I)
NURL 993	Internship in Independent Leadership Skills (Practicum II)

Classes are offered in the hybrid/blended learning format, meeting face-to-face seven to eight times a semester on Tuesdays 5-9pm for students entering in even years or Wednesdays 5-9pm for students entering in odd years.

COURSE DESCRIPTIONS

NURL 943 Strategic Planning for Nursing's Future

A foundation for the aspiring nurse leader in shaping change directed to the priorities of quality and safety in the nursing work environment. Students explore the synthesis of principles, theories, and concepts of effective leadership and analyze the individual, interpersonal, and critical thinking skills needed to assist people and organizations in creating and achieving a vision. Primary themes include models of leadership, effective professional communication, collaboration, team building, affirmation of personal and professional values, motivation, mediation, mentoring, empowerment, and risk-taking to effect innovative change.

NURL 953 Role in Health Care Systems

A basis for understanding how the business of health care affects the nurse's role in management or administration, along with the legal, ethical, and regulatory dimensions of organizational leadership. The focus is on the nurse's role as a leader in health and health care using communication and relationship management, knowledge of healthcare environment, business skills, and professionalism to achieve established goals and improve quality of care.

Prerequisite: NURL 943 Strategic Planning for Nursing's Future.

NURL 983 Practicum in Organizational Management (Practicum I)

An application of concepts of CQI organizational dynamics and outcome measures, informatics, and financial management in a variety of health care settings. Students work closely with a leader on organization-designated projects and experience role modeling while contributing to the functioning of the healthcare organization.

Prerequisite: NURL 953 Role in Health Care Systems.

NURL 993 Internship in Independent Leadership Skills (Practicum II)

An opportunity to practice independent leadership skills in an ever-changing healthcare organization. The student completes a selected leadership project to address safety, quality, and/or nursing work environment issues in health care. Acute care agencies, community settings, municipal and state agencies, public and private institutions and/or professional organizations are possible sites for the practicum, thus offering the student a wide range of opportunities to achieve individualized leadership goals.

Prerequisite: NURL 983 Practicum in Organizational Management.

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Toman, Rebecca, B.S., Syracuse University; M.A., Framingham State University; Visiting Instructor, Business

Wallace, Robert B., B.A., Miami University; Ph.D., Northwestern University; Visiting Professor Emeritus, Business

Waters, Linda B., B.A. University of Rhode Island; M.Ed., Rhode Island College; Visiting Instructor, Education

Weiser, Eric, B.S., University of Iowa; Ph.D., Texas Tech University; Visiting Associate Professor, Psychology

Whitbeck, Margaret, B.S., University of Scranton; M.S., Framingham State University; RD, CDN; Visiting Instructor, Food and Nutrition

White, Karen, B.S., M.Ed., Framingham State University; RD, LD; Visiting Lecturer, Food and Nutrition

Whitman, Betsey, B.A. Shimer College; M.A.T., Harvard Graduate School of Education; M.A., University of Florida; Ph.D., Florida State University; M.S., Harvard School of Public Health; Professor Emerita, Mathematics

Whitmore, Kelly, B.A., M.Ed., Framingham State University; Visiting Instructor, Education

Wright, Cynthia, B.S., Brigham Young University; B.A., University of Northern Colorado; M.S., Brigham Young University; Ph.D., Utah State University; Visiting Professor, Food and Nutrition

Wulf, Sharon, B.S., Providence College; M.B.A., Northeastern University; Ph.D., Columbia Pacific University; Visiting Assistant Professor, Business

Rights of Students

PRIVACY RIGHTS OF STUDENTS

Students are hereby notified that Framingham State University complies with the provisions of federal laws governing the privacy and disclosure of student information (FERPA). The University has adopted a policy for assuring this privacy. This policy defines types and locations of educational records, stipulates students' rights, describes procedures for students to review and inspect educational records, and provides a procedure to file complaints concerning alleged failures by the institution to comply with the federal law. Copies of the institutional policy as found in the RAM Student Handbook may be secured from the Dean of Students.

2016-2017 Academic Calendar

Fall Semester 2016

Semester Begins	Friday,	September 2, 2016
Semester Ends	•	
(Exam Snow Day	•	
•	,	,

Spring Semester 2017

Semester Begins	Tuesday, January 17, 2017
Semester Ends.	Friday May 12, 2017
Spring Commencement	Sunday, May 21, 2017

Telephone Directory

Academic Affairs	508-626-4582
Advising (new students)	508-626-4540
Alumni Relations	508-626-4561
Bookstore	508-626-4595
Career Services	508-626-4625
C. Louis Cedrone International Education Center	508-626-4964
Center for Academic Support and Advising (CASA)	508-626-4509
Continuing Education, Office of	508-626-4603
Counseling Center	508-626-4640
Dining Services, Sedexo	508-626-4602
Disability Services	508-626-4627
Distance Education/Academic Technology	508-626-4927
Financial Aid, Office of	508-626-4534
Graduate Admissions, Office of	508-626-4501
Graduate Studies, Office of	508-626-4014
Health Services	508-626-4900
Library	
Circulation	508-626-4650
Inter-Library Loan	508-626-4690
Student Accounts, Office of	508-626-4514
University Police	508-626-4911
University Registrar, Office of	508-626-4545
University Switchboard	508-620-1220
Weather Advisory/School Closing	508-626-4898

Campus Buildings and Facilities

Athletic and Recreation Center, opened in 2001, houses a gymnasium, locker rooms, athletic training rooms and offices, the bookstore, and an aerobics fitness center. The facility sponsors classes in conditioning, yoga, as well as a personal training program.

Crocker Hall is named for Lucretia Crocker, an outstanding teacher and the first woman to be appointed supervisor in the Boston schools. It is currently used for faculty offices.

Arthur M. Doyle Information Technology Center, named for the late Vice President for Academic Affairs, is located adjacent to Whittemore Library and houses the offices of Information Technology Services.

Dwight Hall, named for industrialist Edmund Dwight of Boston, who provided funds for Horace Mann to start the Normal Schools of Massachusetts, houses classrooms, main administrative offices, and an auditorium.

Ecumenical and Cultural Center, built in 1871, was purchased by the institution in 1970 and used as a chapel for all faiths and as a classroom. Renovated in 2000, the facility also now serves as the site for special campus events.

Foster Hall is named for Dr. Stuart Foster, former Chair of the Chemistry Department and Professor Emeritus. The building serves as the Health & Wellness Center and houses Health Services.

Henry Whittemore Library, named for the President of the institution who served from 1898 to 1917, is a seven-level structure completed in 1969. Its collections presently include approximately 200,000 book volumes, and access to over 70,000 electronic journals. An on-line public catalog combines the holdings of the Library and the Minuteman Library Network. These resources are supplemented by on-line computer systems for information retrieval, including Internet access to data-bases world-wide. Curriculum Library, Archives, and Special Collections rooms contain many materials unique to the University. Classrooms, the Emeritus Room, the Copy Center, along with the departments of Communication Arts and Modern Languages are also located in the building.

Corinne Hall Towers, a four-house residence complex, accommodates students in 32 suites of 13 students per suite. It is named in honor of Corinne Hall, a former home economics teacher at the institution. The residence opened in September 1973.

Hemenway Hall, named for Mary Hemenway, who was largely responsible for the development of the consumer sciences division of the institution, houses the departments of Biology, Chemistry & Food Science, Computer Science, Consumer Sciences, Geography, Mathematics, Nursing, Physics & Earth Sciences. It is also home to the student computer lab, the Planetarium, the Food Pilot Plant Laboratory and other science laboratories along with general purpose classrooms including three amphitheaters.

Horace Mann Hall is a coed residence housing juniors and seniors in single rooms. It is named for the famous educator who was the founder of the Commonwealth's first teacher training institution.

Larned Hall is named for Dorothy Larned, who served as the Dean of Women from 1942 to 1961. The six-story residence hall provides living and study facilities for men and women. The ground floor contains a large recreation room with lounge, kitchenette, and meeting rooms for educational and social functions. Other floors contain living quarters, together with study and utility areas. Situated atop Bare Hill, the residence hall is surrounded by an exterior plaza providing an overall view of the campus.

Linsley Hall, named for the late Professor James D. Linsley of the History Department, is a residence for 185 students.

May Hall, is named for Abby May, the Official Visitor to the Framingham Normal School for the Massachusetts Board of Education. In her reports to the legislature, she advocated for this classroom-administrative building which opened in 1889, the year after her death. It was completely renovated in 1982 and houses the departments of Art, English, History, and Political Science.

D. Justin McCarthy Campus Center, named in honor of Dr. McCarthy, President of the University from 1961 to 1985, houses all segments of student activities. Since the building's opening in 1976, The D. Justin McCarthy Center has been the hub of all of the University student activities. In May 2005, the McCarthy Center main entrance was redesigned and all interior spaces have undergone extensive renovations. The McCarthy Center contains the Office of the Dean of Students along with various Student Affairs offices, the Office of Campus Police, The Mazmanian Art Gallery, The Dining Commons, a Cyber Cafe, a student game room, classrooms, and other meeting rooms. The Offices of the Graduate and Continuing Education Division are now located on the fifth floor.

North Hall, opened fall 2011, is coed residence housing approximately 400 sophomores, juniors, and seniors in four-person suites or in connected doubles and singles sharing semi-private bathroom facilities.

O'Connor Hall, named for Martin F. O'Connor, who served as President from 1936 to 1961, is a residence for 269 women. O'Connor Hall also serves as the home of the Christa Corrigan McAuliffe Center for Education and Teaching Excellence and the Challenger Learning Center.

Peirce Hall, named for Cyrus Peirce, who was the first President of the University, is a residence for 102 women students. South Peirce houses academic administrators' offices and the Center for Academic Support and Advising.

The Christa Corrigan McAuliffe Center for Education and Excellence

As teacher, Mission Specialist, and Framingham State University alumna, Christa Corrigan McAuliffe has inspired both students and educators for nearly two decades. The McAuliffe Center was established to honor her commitment to education by providing exciting, standards-based programs in the pursuit of excellence. The Challenger Learning Center is the McAuliffe Center's best-known program. In full-size mockups of both Houston's Mission Control and a space station interior, middle-school students apply the principles of physical science to the real-time challenges of a simulated space flight.

Just up the hill in the middle of the campus is the Framingham State University Planetarium. The thirty-foot dome brings the majesty of the universe down to Earth, with original programming from the McAuliffe Center that combines state-of-the-art technology with current educational philosophy.

In partnership with the Science Education Department of the Harvard-Smithsonian Center for Astrophysics, the McAuliffe Center brings the ARIES hands-on astronomy curriculum to teachers across the United States.

The McAuliffe Center's relationship with NASA gives teachers throughout New England access to the agencies numerous space-related programs, including Mission Mathematics and Liftoff to Learning. Building a Presence for Science, a National Science Teachers Association program in which more than 150 Massachusetts science teachers facilitate the integration of science education standards into classrooms statewide, is yet another example of the Center's collaborative efforts. The McAuliffe Center is located on the FSU campus in O'Connor Hall. Call 508-626-4050, or visit our website at www.christa.org, for more information.

Framingham State University has established the Christa Corrigan McAuliffe Scholarship Program to attract, recognize, and encourage exceptionally talented students who wish to study at Framingham State University. Successful applicants are awarded \$1,000 toward full-time study. The scholarship may be renewed for up to four years of study at the University. All prospective first-year students, new transfer students, or continuing full-time undergraduate students enrolled at the University may apply for the scholarship.