MASTER OF EDUCATION (leading to Professional Licensure)
SECONDARY MATHEMATICS

This degree is designed to meet the Massachusetts Department of Education standards leading to professional license.
This program is approved for professional licensure at the middle (5-8) or secondary (8-12) levels.

Prerequisites:
1. Bachelor’s Degree in Mathematics or equivalent from a regionally accredited college or university
2. Initial or Professional Massachusetts licensure in Mathematics (Middle (5-8) or Secondary (8-12) license)*
3. An introductory course in Adolescent Psychology
4. An introductory course in Special Education
5. An introductory course in Computer Applications
6. An introductory course in Multicultural Education.
   *Students without the required license may work toward an Initial License and then apply up to six semester hours of appropriate graduate credit toward the master’s degree.

Required Courses:

Common Standards Coursework (15 s.h.)
EDUC 0513 Evaluation Techniques in Education
EDUC 0622 Case Studies in Middle and Secondary Education
EDUC 0587 Instructional Practices: Materials & Classroom Procedures in Secondary Education
EDUC 0632 Research in Education (research project required)
EDUC 0633 Social Cultural Theories: Foundations of Education

Standard I (18 s.h.):
Required Courses:
MATH0680 Elementary Mathematics from an Advanced Point of View
MATH0690 Graduate Seminar in Mathematics

Choose two courses under advisement from the following list:
IDIS 0518 Graphing Calculators - Mathematics and Science
IDIS 0536 Technology for Mathematics and Science Educators
IDIS 0550 Science and Math Technology
IDIS 0620 Integrated Science and Math I
IDIS 0630 Integrated Science and Math II
IDIS 0610 Innovations in the Teaching of Mathematics and/or the Sciences
MATH0659 Seminar in Mathematics for the Middle School or
MATH0689 Seminar in Mathematics for the Secondary School
Two more mathematics or IDIS courses may be chosen from the list above or from the following list of mathematics courses. A mathematics content course below may be taken for graduate credit provided a course in this field of mathematics has not been taken previously.

(Please see following list of available Mathematics courses appropriate for graduate level study.)

MATH 0501 Modern Abstract Algebra I
MATH 0502 Modern Abstract Algebra II
MATH 0504 Differential Equations
MATH 0506 Modern Geometry I
MATH 0507 Modern Geometry II
MATH 0508 Introduction to Analysis
MATH 0509 Introduction to Topology
MATH 0511 Theory of Numbers
MATH 0523 Complex Analysis
MATH 0533 Applied Statistics and Experimental Design
MATH 0534 Operations Research and Modeling
MATH 0535 Introduction to Numerical Methods
MATH 0540 Mathematical Statistics I
MATH 0541 Mathematical Statistics II

Requirements for Master's Degree: 33 s.h.

Students are required to successfully complete a written comprehensive examination to demonstrate mastery of knowledge gained in coursework and to relate concepts across the curriculum. The comprehensive exam may be taken after completing all required courses and a minimum of 27 s.h. of coursework within the Master’s program.