

BOARD OF HIGHER EDUCATION

REQUEST FOR BOARD ACTION

NO.: AAC 20-07

EXECUTIVE COMMITTEE DATE: December 6, 2021

BOARD DATE: December 14, 2021

CONSENT AGENDA

MOVED: The Board of Higher Education approves the following motions on a consent agenda:

BHE 22-16	Approval of Letter of Intent of Bridgewater State University Award the Master of Science in Mathematics and Authorization for Fast Track Review
BHE 22-17	Approval of Letter of Intent of Massachusetts College of Liberal Arts to Award the Bachelor of science in Elementary Education and Authorization for Fast Track Review
BHE 22-18	Approval of Letter of Intent of Massachusetts College of Liberal Arts to Award the Bachelor of Science in Early Childhood Education and Authorization for Fast Track Review

VOTED:

Authority: Article III, Section 6, By-Laws

Contact: Winifred M. Hagan, Ed.D., Sr. Associate Commissioner for Strategic Planning & Public Program Approval

**BOARD OF HIGHER EDUCATION
REQUEST FOR BOARD ACTION**

NO.: BHE 22- 16

EXECUTIVE COMMITTEE DATE: December 6, 2021

BOARD DATE: December 14, 2021

**APPROVAL OF LETTER OF INTENT OF BRIDGEWATER STATE UNIVERSITY TO
AWARD THE MASTER OF SCIENCE IN MATHEMATICS AND AUTHORIZATION
FOR FAST TRACK REVIEW**

MOVED: The Board of Higher Education (BHE) has evaluated the Letter of Intent of Bridgewater State University to award the **Master of Science in Mathematics** and has determined that the proposal aligns with BHE criteria. Accordingly, the BHE authorizes the Commissioner to review the program and to make a final determination on degree-granting authority pursuant to the Fast Track Review protocol.

VOTED: Motion approved and advanced to the full BHE by the Executive Committee on 12/6/2021; and adopted by the BHE on 12/14/2021.

Authority: Massachusetts General Laws Chapter 15A, Section 9(b); AAC 18-40

Contact: Winifred M. Hagan, Ed.D., Senior Associate Commissioner for Strategic Planning and Public Program Approval

**BOARD OF HIGHER EDUCATION
December 2021
Bridgewater State University
Letter of Intent
Master of Science in Mathematics**

DEGREE TITLE ABSTRACT ON INTENT AND MISSION OF PROGRAM

Bridgewater State University's (BSU) proposed M.S. in Mathematics (MS/Math) is expected to provide deeper Mathematical content knowledge than the existing Master of Arts in Teaching Mathematics program at BSU, which is aimed at training high school mathematics teachers. It is planned that the proposed program would provide students with an efficient route to a master's degree, and it is expected to fill the need for such a program in and around southeastern Massachusetts. BSU plans that the proposed MS/Math's broad and rigorous content knowledge will prepare students to enter an applied mathematics PhD program. As well, the proposed program is expected to help students develop the necessary skills and knowledge for positions within industrial, government, engineering, medicine, finance, and insurance enterprises.

The proposed Master of Science in Mathematics was approved by the Bridgewater State University Board of Trustees on June 17, 2021. The LOI was circulated on October 7, 2021. No comments were received.

A. ALIGNMENT WITH MASSACHUSETT'S GOALS FOR HIGHER EDUCATION

Address Gaps in Opportunity and Achievement in Alignment with Campus-Wide Goals

BSU plans that this graduate degree program will promote the system-level strategic goal of making college more accessible and affordable to all residents. There is no comparable Mathematics MS degree program in the area, and few opportunities for residents of the southeastern region of Massachusetts to pursue graduate-level education in Math. The proposed MS/Math is further designed to improve recruitment and retention among BSU's undergraduate population. By providing a pathway to earn both a bachelor's and master's degree in five years, BSU anticipates enrolling new

students, who will be supported through completion of the proposed program. A fifth year is expected to provide students with more time to engage in a learning community, to be bolstered by faculty and peer advocates, and to strengthen connections within the field. This works toward BSU's system-level strategic goal of closing gaps in student opportunity and achievement and improving college completion rates.

Program or Department Supports to Ensure Student Retention and Completion

BSU plans to utilize systems already in place at in order to emphasize the affordability of the proposed MS/Math degree program. This includes referring undergraduates enrolled in the accelerated program to the financial aid office to make sure they have the necessary financial support while enrolled as undergraduates. BSU plans to advertise various opportunities for students to earn income within the university, including graduate assistantships available on campus, as well as the opportunity to work as a Peer Leader for undergraduate peer-assisted courses. These experiences are steps toward the system-level goal of college affordability. The College of Graduate Studies' Graduate Writing Fellows and Graduate Quantitative Fellows provide academic supports to graduate students, as does the no-cost, one-credit course, *Maximizing the Graduate Student Experience*. It is further planned that Mathematics faculty will provide a network of support to students which will help with retention. Through focused and goal-driven advising within the department, BSU expects to advance the system-level goal of improving college completion rates.

Alliances and Partnerships with PK-12, Other IHE's, Community Employers

BSU's Department of Mathematics currently co-hosts a joint colloquium with Wheaton and Stonehill Colleges. These connections are planned to contribute to the development of mutually beneficial relationships with students and other institutions of higher education, providing BSU with access to a wider pool of college-going candidates. Once the LOI is approved, BSU anticipates it will formalize articulation agreements to facilitate application and acceptance into BSU's proposed MS/Math program.

Additionally, throughout the Mathematics MAT program, BSU maintains strong connections with in-service teachers throughout southeastern Massachusetts. While serving teachers in the MAT/Math program, the proposed MS/Math program is expected to be of interest to some students in this group as well. A content-focused master's degree program can provide teachers with the needed credentials for professional licensure, with the added bonus of increasing marketability for any teacher who may wish to teach at the community college level in the future.

BSU's Post-Graduate Opportunities Committee is reported to be a continually evolving network of contacts in various sectors of industry¹. It is planned that internship opportunities will be developed for graduate students once LOI approval is obtained. As well, an advisory council is planned to be developed to strengthen the network and help inform internship and curricular elements of the proposed MS/Math Program. The proposed Master of Science in Mathematics degree program is designed to give students the flexibility to prepare themselves for the careers they seek. Students planning to enter the data science and analytics job market will have the option of taking course work in statistics, optimization, and applied math, along with an internship and capstone project that will provide meaningful work experience in their desired field. Students interested in teaching at the secondary or 2-year college level will build a solid mathematical foundation, while also potentially gaining professional classroom teaching experience through a co-curricular or course-embedded peer leadership experience in partnership with the BSU Academic Achievement Center's Peer Leader program.

The College of Graduate Studies has launched a Graduate Quantitative Fellow program for student peer support in mathematics across graduate programs. It is expected that the College of Graduate Studies' partnership with the Bartlett College of Science and Mathematics will strengthen BSU's reputation in the area of graduate math and sciences programs. In other areas of the university, such as counseling,

¹ *Town of Hanover Fire Department (2021); Akamai (2021); Naval Undersea Warfare Center Division Newport (2021); Firecracker Sports (2021); Vector Marketing (2020); Whitman-Hanson High School (2020); Tufts Health Plan (2019)*

psychology, social work, and educational leadership, synergistic offerings have been found to increase enrollments.

Relationship to MassHire Regional Blueprints

The *Southeastern Massachusetts Labor Market Blueprint* states that the professional, scientific, and technical service industry struggles to maintain a worker pipeline and to retain knowledgeable workers. BSU holds that many positions for this workforce require advanced study in mathematics, and that students in the region have limited access to the kind of mathematical education needed. BSU indicates that labor supply chain gaps are hard to manage and cite the blueprint: “... *supply gaps are evident in multiple targeted occupations within this industry. Part of this results from the rapid changes in technology that result in shifting and new skill sets necessary for workers to perform their jobs. However, it is also evident that previously cited demographic data around educational attainment within the region reveals a challenge to identify job seekers who require the requisite skills to the highest demand positions*”².

BSU further cited an Eduventure’s market analysis report completed in December 2019 and a follow-up report from January 2021, which provided evidence of an increase in the labor demand for math-related occupations at the national, regional, and statewide level, with demand for mathematicians and statisticians growing particularly quickly in Massachusetts. The most recent reportedly indicated that these trends have continued accelerating in the last year, despite the ill-effects of the pandemic on the job market. BSU also cited the 2021 report: “... *in terms of related occupations that align to a mathematics master’s degree, the labor outlook for mathematicians and statisticians is extremely strong. In Massachusetts specifically, statisticians are growing at over 8x the rate of all jobs in the state. ...*” This Eduventures reports were based on data collected around the occupations coded as Natural Sciences Managers, Mathematicians, Statisticians, Secondary School Teachers, and Mathematical Science Occupations. Entry-level job titles include Data/Business Analyst, Data Scientist, Quantitative

² (MassHire Department of Career Services. November 21, 2018. *Southeastern Massachusetts Labor Market Blueprint*. Retrieved October 12, 2021 from <https://www.mass.gov/doc/southeast-regional-workforce-skills-planning-initiative-regional-blueprint/download>.)

Modeling and Research Analyst, Junior Quantitative Researcher, Investment Risk Analyst, and Lecturer/Adjunct Faculty. BSU noted that the report finds that in New England, the number of people holding mathematics master's degrees grew at a rate of 21 percent from 2014 to 2019, but that the market is not becoming saturated, and student demand for such programs is continuously increasing at the national and local level. The projected growth in labor market demand for mathematicians and statisticians in Massachusetts over the next decade is 19 percent and 25 percent, respectively, with more modest growth projected in other math-related occupational fields. A recent BSU search of employment positions related to mathematics showed over 300 active positions within a 50-mile radius of Bridgewater, spanning a variety of fields, indicating many industries for which a master's degree in math is a required, or at least a preferred, qualification. Employers for math-related positions included Plymouth Rock Assurance, Man Group, Mediahub, Akuna Capital, Suffolk University, Peapod Digital Labs, Mediahub, Paypal, Massachusetts General Hospital, Brigham & Women's Hospital, Raytheon, Roxbury Community College, Wentworth Institute of Technology, and Northeastern University³.

Duplication

Salem State university offers a Mathematics master's degree program. Framingham State University has an MEd in Mathematics for in-service teachers. Some master's programs are offered through the UMass system, including UMass Amherst, UMass Boston and UMass Lowell. The focus in both Boston and Lowell's programs is in applied/computational math, statistics, or data science. The proposed MS/Math program will focus on foundational areas such as analysis and algebra. UMass Amherst has a program with rigorous research expectations for students on a PhD track. In addition to these public options, there are a few private universities in the

³ "Mathematics Positions near Bridgewater, MA"

<https://www.indeed.com/jobs?q=Mathematics&l=Bridgewater%2C%20MA&radius=50&vjk=39302495db18605b>
retrieved March 3, 2021.

region offering mathematics master's degree programs, including Brandeis, WPI, and Northeastern at a significantly higher cost.

Innovative Approaches to Teaching and Learning

The proposed MS/Math degree is derived from each of the BSU Strategic Plan goals and the Academic Affairs strategic goals, which are carefully nested within the institution's overarching strategic goals. Explanation for how this alignment is specifically designed to work at the program level is detailed in the next section.

B. ALIGNMENT WITH CAMPUS STRATEGIC PLAN AND MISSION

Priority Rationale and Support of Strategic Plan and Overall Mission of Institution

BSU's mission statement asserts that it *is an inclusive community dedicated to the lifelong success of all students, focused on the continuous improvement of its people, and responsible for leading innovation that benefits southeastern Massachusetts, the commonwealth, and the world.* Prioritizing the development of the proposed MS/Math degree is an active step supporting the lifelong success of students while offering innovative programming that will benefit the region and beyond. In addressing BSU's institutional strategic goals, the first and foremost goal is to focus resources and decisions on the overarching priorities of students. Goal one toward this end for the Academic Affairs division is to provide dynamic learning environments. Offering an accelerated pathway for undergraduates to receive a master's degree in mathematics, is designed to align with these goals. Additionally, course-embedded opportunities to offer supplemental instruction to BSU undergraduates is expected to lead to measurable student success at both the undergraduate and graduate levels. Further examples are reflected below:

Strategic Plan Goal: Provide a teaching and learning environment with exceptional educational opportunities for intellectual, creative, and professional growth / Academic Affairs Strategic Plan Goal: Invest in high-impact practices and the people advancing them Students will take part in high-impact practices, such as internships, capstone projects, and/or writing-intensive. Such practices have been demonstrated to benefit all students, particularly racially minoritized students.

BSU Strategic Plan Goal : Provide opportunities for personal and professional growth for faculty, librarians, and staff in support of organizational progress. Academic Affairs Strategic Plan Goals: Empowering faculty and librarians to excel within their discipline; Encouraging people to develop their lives and careers. Faculty opportunities to design graduate-level coursework and work with students on original research for theses and capstone projects, will ensure the department is on top of current developments in the field, active in the discipline writ large, fostering research in the discipline, and inspiring students to achieve mathematical success.

BSU Strategic Plan Goal: Serve as a regional catalyst for economic, cultural, and intellectual engagement. Academic Affairs Strategic Plan Goal : Making a positive impact on Massachusetts and beyond. The proposed program at BSU is designed to clearly promote intellectual engagement in and around southeastern Massachusetts enterprises. Advanced mathematical training is becoming more important in the growing technical sectors of the economy, and a program such as this is planned to help prepare students to contribute professionally to these areas. Internship experiences are designed to be part of the proposed MS/Math program.

BSU Strategic Plan Goal : Advance diversity and social justice with impact in the region and beyond. Academic Affairs Strategic Plan Goal : Serving as a beacon for diversity and social justice. These goals are especially relevant to STEM fields, including math, which continue to suffer from a systemic lack of diversity. It is well established that mathematics in the US is inequitable, and systematically disadvantages Black, Latinx, and Indigenous students, as well as women and first-generation college students, and that this marginalization has far-reaching effects. Research demonstrates that teachers with higher preparation levels have greater success in the classroom, and that underrepresented racial groups are often taught by less prepared teachers⁴. Unequal opportunities to learn mathematics are shown to be associated with differences on standardized tests among students of different ethnic/racial groups and socioeconomic

⁴ (Anderson, K. A. (2020, March 1). "A National Study of the Differential Impact of Novice Teacher Certification on Teacher Traits and Race-Based Mathematics Achievement," *Journal of Teacher Education* Vol. 71, Issue 2, 247-260.)

levels⁵. As a mathematics community, and in academia more broadly, BSU commits to the responsibility to take active steps toward making math accessible to all. BSU has a demographic population representative of the region. Per the 2019-2020 *BSU Factbook*, the undergraduate student population consists of 59 percent women, 27 percent students of color, and 37 percent low-income students. More than 50 percent of BSU students are first generation college students. BSU finds itself well-positioned to offer graduate-level math education to students who are traditionally underrepresented in math by offering affordable access in a supportive environment.

Program Goals and Learning Objectives (Form B)

BSU plans the goal of the proposed program to provide students with a sound understanding of important mathematical concepts and the tools needed to understand and apply mathematics in a variety of professional positions. It is also planned that the proposed program will develop students who have the necessary abilities and knowledge to work in government, education, engineering, medicine, finance, and insurance, or to enter a doctoral program in mathematics. Program objectives include developing students who will succeed in coursework throughout the degree program, experience doing original research and learn through internships. It is anticipated that the program will produce well-rounded mathematicians able to apply mathematics to increasingly complex problems. In addition to program goals BSU provided student learning outcomes in the full LOI proposal

ALIGNMENT WITH OPERATIONAL AND FINANCIAL OBJECTIVES OF INSTITUTION

Enrollment Projections (Form C, Appendices)

BSU estimates 12-20 students will be enrolled in the proposed program during the first few years at any one time. It is estimated that an expansion to 27 enrolled students will occur within the first five years, serving a total of 56 individual students within the

⁵ (Flores, A. (2007). "Examining Disparities in Mathematics Education: Achievement Gap or Opportunity Gap," *High School Journal*, Vol 91, Issue 1, 29-42.)

first five years of the program. It is also anticipated that MS/Math will have a positive impact on several other programs at BSU. The Early Admissions Pathway (4 plus1) is expected to help with recruitment and retention at the undergraduate level. The additional coursework through the MS/Math program will provide more options to both MAT students and advanced undergraduates. Undergraduates in their last semester at BSU may take a graduate course without plans to attend BSU's graduate program, and many undergraduates admitted through the Early Admissions Pathway to the graduate program will take graduate courses during their undergraduate course of study. Students may also enroll in MS/Math courses as non-degree seekers.

Resources and Financial Statement of Estimated Net Impact on Institution

(Form D Appendices)

BSU plans that the required courses in this program will be taught by current mathematics department faculty members in areas of their expertise. BSU plans to offer three courses per semester at first, and not require new full-time faculty. For budgetary purposes, BSU assumed two such courses a year, and noted that in practice it will likely be fewer. A small number of graduate courses are planned to be cross listed as undergraduate courses and others will be taught as overloads by full-time faculty. The Early Admissions Pathway (4 plus1) also makes graduate level courses available for undergraduate enrollment. It is expected that courses will require classroom space comparable to other undergraduate math classes, including whiteboards and projectors, and BSU will utilize the same space that math classes use already. BSU noted that due to the need for high-intensity practice within mathematics, this graduate program will be taught primarily in person and on campus. Some online courses and hybrid courses will be created once the program is approved to address student needs for flexibility. Classroom technology and laptop carts with computer algebra systems installed are currently available and will be utilized in the proposed program. Open Education Resources (OER) are expected to be utilized, with recent math research available in an open-source format online, either posted individually on websites by mathematicians or posted on arXiv.org for free download. BSU finds that other resources, such as journal subscriptions beyond what the library already employs, are unnecessary.

Cost and revenue estimates are as indicated in Form D, based on the projected number of students in (Form C). These estimates assume a 2 percent tuition and fee increase in years two through five for students. Form D also assumes four off-load instructors a year at an estimated \$5,000 a course for the first year. The cost of program instructors increases in year four and five to account for higher enrollment that may lead to increased offerings and instructional costs. The chart assumes one on-load course per year for the program and one cross-listed course per year. It also assumes increased compensation for the Division of Graduate and Continuing Education (DGCE) chair since an additional position may need to be created to handle the increased workload of a separate program. Over time it is anticipated that the roles of DGCE chair for the MAT program versus the MS program will evolve, including the division of funds for the two chairs. It is expected that the enrollment increase will generate more than sufficient revenue to maintain the program and generates revenue for the university.

STAFF REVIEW AND VALIDATION

Staff thoroughly reviewed the **LOI** proposing full degree granting authority for the **Master of Science in Mathematics** submitted by **Bridgewater State University**. Staff validate that the **LOI** includes all data required by the Massachusetts Board of Higher Education. Staff recommendation is for BHE authorization for the Commissioner to review the program pursuant to the Fast-Track review protocol.

Form A2: LOI Graduate Program Curriculum Outline

Major Required (Core) Courses (Total # of courses required = 2)		
Course Number	Course Title	Credit Hours
MATH 611	Algebra I	3
MATH 621	Real Analysis I	3
	Sub-total # Core Credits Required	6
Elective Course Choices (Total courses required = 8, at most 2 courses at 500 level)		
MATH 512	Abstract Algebra II	3
MATH 517	Complex Variables	3
MATH 521	Introduction to Analysis II	3
MATH 612	Algebra II	3
MATH 615	Linear Algebra	3
MATH 622	Real Analysis II	3
MATH 631	Topology	3
MATH 640	Combinatorics	3
MATH 650	Probability	3
MATH 655	Statistics	3
MATH 661	Applied Math	3
MATH 663	Optimization	3
MATH 690	Internship in Mathematics	3
MATH 691	Thesis in Mathematics	3
MATH 698	Advanced Topics in Mathematics	3
	Sub-total # Elective Credits Required	24
Curriculum Summary		
Total number of courses required for degree		10
Total credit hours required for degree		30

Form B: LOI Goals and Objectives

Goal	Measurable Objective	Strategy for Achievement	Timetable
<p>PROGRAM GOALS</p> <p>The goals of the graduate degree in mathematics are to:</p>			
<p>Provide students with a mathematical education at the graduate level</p>	<p>Student success in coursework and exit requirements. The various options for fulfilling exit requirements allow students to demonstrate competencies commensurate with their post-graduate ambitions.</p>	<p>The courses offered cover the typical range of topics that students entering PhD programs are expected to have seen. Required courses in analysis and algebra ensure students have achieved sufficient mathematical maturity and acquaintance with these foundational areas.</p>	<p>Success in coursework is measured throughout the graduate experience in the form of homework assignments, class projects, and exams. Exit requirements provide a more holistic view of the skills acquired over the course of the entire program. Annual assessment reports will aggregate these individual measures, based on random sampling of relevant assignments, and exit requirements.</p>

<p>Develop intellectually open and aware lifelong learners in mathematics</p>	<p>Student survey data reflects dispositions toward the subject. Data on post-graduate activities provide insight into students' abilities to apply and expand upon the knowledge gained through the program.</p>	<p>Courses are geared not only toward developing specific skills within a given subject, but also tools and perspectives that are more broadly applicable in mathematics and related disciplines, quantitative professions, and daily life. Opportunities to engage in original research and internship experiences prepare students for future enterprises.</p>	<p>Annual surveys of graduating students and alumni surveys administered every four years will provide snapshots of dispositions and ability to incorporate skills and knowledge in activities beyond the classroom.</p>
<p>Prepare students for positions in K-12 settings, community colleges, non-profits, government, and private industry, in which they will primarily draw on their mathematical knowledge</p>	<p>Job placement and PhD admission rates indicate preparedness for post-graduate endeavors.</p>	<p>Coursework is designed to give students the general skills needed to succeed in academia and industry after leaving the program, and exit requirements serve to prepare students more specifically for their personal aspirations.</p>	<p>Data on graduating students' next steps will be collected via annual graduating student surveys. Longer term outcomes will be collected through alumni surveys, administered every four years.</p>
<p>Create well-rounded mathematicians able to apply mathematics to problem-solve</p>	<p>Assessment of student work in the wide variety of courses offered allow us to certify that students are proficient in a number of subjects</p>	<p>Broadly speaking, mathematics is concerned with reasoning and problem-solving skills. By reinforcing these skills in diverse subject areas,</p>	<p>Annual program assessments incorporating direct and indirect methods, along with regular faculty conversations in venues such as the</p>

	and are able to apply theoretical knowledge in concrete contexts.	students will be well-equipped to tackle a number of disparate problems in assorted settings.	Department and Mathematics' Graduate Committee meetings will paint a picture of students' mathematical depth and breadth, as well as their abilities to apply this knowledge more generally.
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LEARNING OUTCOMES			
Upon successful completion of the mathematics graduate degree program, students will be able to:			
Demonstrate a facility with foundational math concepts and abstract thinking in core areas of mathematics, including algebra and analysis, by identifying and examining central ideas, solving problems, and proving foundational theorems	Samples of student coursework, class projects, and comprehensive exams will be collected annually and assessed according to rubrics developed for this outcome.	Required courses in algebra and analysis will expose students to core ideas in these subjects, and other foundational areas such as topology, probability and statistics, and applied math will contribute to students' breadth of knowledge in mathematics.	This learning outcome will be assessed every four years (beginning year three) as a part of our annual assessment. As the program matures, longitudinal analyses will be undertaken, and multiple outcomes may be assessed each year.

<p>Display the ability to analyze and synthesize key mathematical ideas by applying quantitative reasoning and/or analytical problem solving to a variety of mathematical topics and applications, respectively</p>	<p>Content-specific knowledge is assessed through class assignments and comprehensive exams. Internship experiences, course projects, and original research (through thesis work and otherwise) provide a means of assessing the capability to apply these perspectives and techniques in novel contexts.</p>	<p>By engaging in other coursework, students will make connections between various fields of mathematics. Courses in applied math, along with an internship/capstone opportunity, will give students the tools to apply their learning in real-world settings.</p>	<p>This learning outcome will be assessed every four years (beginning year four) as a part of our annual assessment. As the program matures, longitudinal analyses will be undertaken, and multiple outcomes may be assessed each year.</p>
<p>Engage in the process of mathematical problem solving, including posing questions, forming hypotheses, making generalizations, critiquing arguments, and proving assertions</p>	<p>Problem solving skills and critical thinking will be assessed throughout the degree program in individual course assignments, as well as through the exit requirements. The process of making conjectures and evaluating the truth of assertions can further be assessed through a thesis paper for students who elect to do research.</p>	<p>All graduate level mathematics courses will require students to engage in problem-solving. Students may choose to pursue a thesis project, which will give students the chance to engage in original research to pose new questions and explore their own conjectures.</p>	<p>This learning outcome will be assessed every four years (beginning year two) as a part of our annual assessment. As the program matures, longitudinal analyses will be undertaken, and multiple outcomes may be assessed each year.</p>
<p>Communicate arguments and proofs effectively, both in oral and written</p>	<p>Samples of written student work and</p>	<p>Rubrics for assessing oral and written</p>	<p>This learning outcome will be</p>

<p>form, to a wide range of audiences</p>	<p>observations of oral presentations.</p>	<p>communication of mathematics, respectively, have been developed for assessment in our undergraduate and MAT programs. These tools will be refined to assess this outcome for our MS students.</p>	<p>assessed every four years (beginning year one) as a part of our annual assessment. As the program matures, longitudinal analyses will be undertaken, and multiple outcomes may be assessed each year.</p>
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Form C: LOI Program Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5
New Full-Time	12	8	12	12	12
Continuing Full-Time	0	12	12	15	15
New Part-Time	0	0	0	0	0
Continuing Part-Time	0	0	0	0	0
Totals	12	20	24	27	27

Form D: LOI Program Budget

<i>Cost Categories</i>	Year 1	Year 2	Year 3	Year 4	Year 5
Full Time faculty Teaching on Load	\$14,400.00	\$14,688.00	\$14,982.00	\$15,282.00	\$15,588.00
Part Time & Adjunct Faculty (Salary)	\$20,000.00	\$20,000.00	\$20,000.00	\$24,000.00	\$28,000.00
General Administrative Costs	\$4,000.00	\$5,000.00	\$6,000.00	\$6,000.00	\$6,000.00
Instructional Materials, Library Acquisitions	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00
Marketing	Included in BSU Existing Budgets	Included in BSU Existing Budgets	Included in BSU Existing Budgets	Included in BSU Existing Budgets	Included in BSU Existing Budgets
Totals:	\$38,700.00	\$39,988.00	\$41,282.00	\$45,582.00	\$49,888.00
<i>Revenue Sources</i>	Year 1	Year 2	Year 3	Year 4	Year 5
Tuition and Fees	\$102,654	\$174,510	\$213,840	\$245,430	\$250,290
Gross Revenue	\$102,654	\$174,510	\$213,840	\$245,430	\$250,290
Net Revenue	\$63,954	\$134,522	\$172,558	\$199,848	\$200,402

**BOARD OF HIGHER EDUCATION
REQUEST FOR BOARD ACTION**

NO.: BHE 22-17

EXECUTIVE COMMITTEE DATE: December 6, 2021

BOARD DATE: December 14, 2021

APPROVAL OF LETTER OF INTENT OF MASSACHUSETTS COLLEGE OF LIBERAL ARTS TO AWARD THE BACHELOR OF SCIENCE IN EARLY CHILDHOOD EDUCATION AND AUTHORIZATION FOR FAST TRACK REVIEW

MOVED: The Board of Higher Education (BHE) has evaluated the Letter of Intent of the Massachusetts College of Liberal Arts to award the **Bachelor of Science in Early Childhood Education** and has determined that the proposal aligns with BHE criteria. Accordingly, the BHE authorizes the Commissioner to review the program and to make a final determination on degree-granting authority pursuant to the Fast Track Review protocol.

VOTED: Motion approved and advanced to the full BHE by the Executive Committee on 12/6/2021; and adopted by the BHE on 12/14/2021.

Authority: Massachusetts General Laws Chapter 15A, Section 9(b); AAC 18-40

Contact: Winifred M. Hagan, Ed.D., Senior Associate Commissioner for Strategic Planning and Public Program Approval

**BOARD OF HIGHER EDUCATION
December 2021
Massachusetts College of Liberal Arts
Letter of Intent
Bachelor of Science in Early Childhood Education**

DEGREE TITLE ABSTRACT ON INTENT AND MISSION OF PROGRAM

The Massachusetts College of Liberal Arts (MCLA) proposed Bachelor of Science in Early Childhood Education (BS/ECE) is intended to enable students to obtain a Massachusetts Department of Elementary and Secondary Education (ESE) Initial teaching license in Early Childhood PK-2, a requirement to teach in Massachusetts public school preschool, kindergarten, first and second grade classrooms. A very similar program currently serves students at MCLA as a concentration in Early Childhood Education within the approved Bachelor of Science in Education major. The intent of this proposal is to create a direct pathway for students to complete a MA ESE-Approved Licensure Early Childhood Education course of study, enabling students to deepen the focus on early childhood teaching in schools, while completing the degree in a timely and efficient manner. The proposed BS/ECE major is planned to familiarize students with issues, techniques, and concepts related to contemporary public-school teaching, include opportunities for students to learn to create democratic places of learning through relationship building, and is aligned with MA ESE requirements for PK-2 licensure approved programs.

The proposed Bachelor of Science in Early Childhood Education was approved by the Massachusetts College of Liberal Arts Board of Trustees on March 1, 2021. The LOI was circulated on September 16, 2021. No comments were received.

A. ALIGNMENT WITH MASSACHUSETT'S GOALS FOR HIGHER EDUCATION

Address Gaps in Opportunity and Achievement in Alignment with Campus-Wide Goals

MCLA reports that by enabling students to major in ECE as a stand-alone degree (no double major), students will be helped to complete their education efficiently focusing on the credits that will get them directly to graduation with as close to 120 credits as possible¹. Currently, MCLA Education majors with a concentration and licensure in Early Childhood Education graduate with an average of 138 credits (for those who graduated during the 2018-19, 2019-20, and 2020-21 academic years), representing at least an additional semester of credits. This proposed major will allow students to graduate with 120 credits, reducing the current additional credit burden. This aligns with MCLA's Strategic Goal 2, to "Enhance student persistence, completion, and preparation for post-college success" (MCLA, 2017).

MCLA holds that a stand-alone major in Early Childhood Education provides students with an opportunity to focus more deeply on the issues they care about in this field. MCLA reports that research shows one of the reasons educators of color tend to leave the profession is because of the large amount of micromanagement associated with teaching in public schools (e.g., Kaput, 2019). Moving the Early Childhood Education program out of its current structure as a concentration within the Education degree with the requirement that students enroll in an additional major, and into a single standalone major is expected to provide greater opportunities to expose students to current issues, content, and pedagogy earlier in their college career. They would, for example, have the opportunity to take courses that significantly expand their focus on Early Childhood Development, Families, Race and Ethnic Relations, and the Sociology of Education, etc. Removing the double major requirement also removes a set of early obstacles and restrictions that correlate as disincentives for potential early educators of color; this is designed to align with the goals of the BHE's *Equity Agenda* and MCLA's Strategic Goal 3, to "*Strengthen and demonstrate our commitment to diversity, equity, and inclusion*"

¹Staff note: The disciplinary study of Early Childhood Education includes children from birth through age eight. MA has a bifurcated system of preparing teachers and educators in Early Childhood Education that contain two sets of requirements. One is PK-2 initial licensure programs (~25% of the ECE workforce) which is aligned with MA ESE requirements and can require an additional major in a content area other than ECE. The other are Early Educator preparation programs for Infants, Toddlers, Preschool, Head Start, Child Care, Museum Educators, Family Support Services, and other enterprises serving young children and families (~75% of the ECE workforce). The latter are frequently aligned with NAEYC and TEAC accreditation standards and current research in the science of early learning.

(MCLA, 2017). Further, MCLA notes that early childhood educators in non-school settings represent a more diverse group of educators than are found in PK-12 public school settings. Given MCLA's strong partnerships with local educational institutions and its unique position in the region, a strategic decision with partners in the region has been to split efforts in such a way that the different needs of the regional early childhood education landscape is fully addressed. Specifically, MCLA has defined three primary areas of need: 1) MA Department of Early Education and Care (EEC) early educator certification and completion of an Associate's degree, 2) completion of a Bachelor's degree for early childhood educators in multiple settings (primarily birth through age 4), and 3) MA Department of Elementary and Secondary Education (ESE) early educator initial licensure in public school for Preschool (PK), Kindergarten (K), Grades 1 and 2 classrooms. In MCLA's region, Berkshire Community College (BCC) offers two different Associate degree programs that align with EEC and National Association for the Education of Young Children (NAEYC) core competencies- an AA and AS degree. In addition, MCLA offers a Bachelor degree completion program with a concentration in Children, Families, and Society intended for early childhood educators. MCLA also offers an approved (ESE) Initial licensure program in Early Childhood Education, which is the focus of this proposal. Through these three distinct, but related, programs, the region addresses the range of needs of early childhood educators in a bifurcated system. Of note, MCLA is one of 24 educator preparation programs that offer a baccalaureate licensure program in Early Childhood, and the next closest is Westfield State, 50 miles away. The other 23 programs are an average of 114 miles away. In addition, it is especially important to recognize the significant pay gap between early childhood educators who work in public schools versus those that work in private settings². This discrepancy provides additional evidence of the importance of providing a pathway for educators to pursue the ESE Initial licensure in PK-2. the proposed program is limited to an Initial teaching license in ECE because other programs in MCLA's area currently address the differentiated areas of need in ECE. The Curriculum is designed demonstrated for alignment to community college programs and is

² (https://cscce.berkeley.edu/workforce-index-2020/wp-content/uploads/sites/2/2020/11/2020-Index_StateProfile_Massachusetts.pdf)

demonstrated through the A2B pathways designed to map onto and include the MassTransfer foundational courses for Early Childhood Education.

Program or Department Supports to Ensure Student Retention and Completion

The Education Department at MCLA offers critical supports to ensure students persist and complete the licensure and graduation requirements. Students are assigned an Education Advisor, with whom they meet each semester. Advisors and students will use college-wide resources to track students' progress (e.g., *DegreeWorks*³), as well as Education Department-specific documents that help clarify the sequence and overall plan of study for the Early Childhood Education major. Students take part in numerous built-in opportunities for feedback and support, especially during their field-based experiences, including Gateway and Benchmark Assessments⁴.

The small department at MCLA is reported to provide many opportunities for students to form ongoing, meaningful relationships with faculty, beginning in their first year with Core courses like *Education and Society*, and *Children's Literature*, and continuing through student's supervised field-based experiences prior to graduation. The department also offers an Education Collective, which is an extracurricular club designed to help students build community and engage in research pursuits. As well, the Education Department, through its network of local partner schools and districts, connects students to numerous opportunities for both volunteer and paid opportunities in local schools, thus making and strengthening more connections between students

³ *DegreeWorks* is a degree audit program and an academic advisement tool designed to help students understand the degree requirements for a major.

⁴ : *Benchmark assessments provide opportunities across our licensure program to ensure that teacher candidates are meeting the required Professional Standards for Teachers (PSTs; <https://www.doe.mass.edu/edprep/resources/guidelinesadvisories/teachers-guide.docx>). These assessments are built into our coursework and evidence is collected by the instructors of the courses in which these assessments are embedded. We use these assessments as evidence of teacher candidates meeting the PSTs, as well as to provide focused feedback and support as needed. Gateway assessments are a required part of our educator preparation program, as described in the pre-practicum guidelines (<https://www.doe.mass.edu/edprep/domains/field-based/prepracticum.docx>) and are embedded in both of our pre-practicum courses. Gateways are intended to "evaluate initial licensure teacher candidate performance in early field-based experiences (the 'pre-practicum') by administering at least two licensure-specific performance tasks, or 'gateways.' Gateways provide SOs [Sponsoring Organizations] with an opportunity to 1) identify at-risk candidates and provide them with the necessary supports and guidance to improve or exit the program (The Candidate Criterion 4) and 2) monitor individual licensure programs to ensure that each is effective (Continuous Improvement Criterion 1)."*

and local educators. Volunteer opportunities are primarily housed within the Volunteer Center at MCLA, which offers ongoing opportunities to work with children and youth, as well as a rotating set of opportunities based on current student interests and needs in the region. The majority of the opportunities posted to the Education Department Canvas page are paid opportunities, and MCLA has recently shifted to posting these opportunities through the Career Services office, due in part to the large volume of postings for paid positions in public schools. The Career Services office posts positions through an interactive job search program, HandShake⁵, and on the HandShake Facebook page. Both current students and alumni have access to these services. Racially minoritized students have access to all of these services which are further highlighted through one-on-one holistic advising from their Education advisor. Opportunities are also posted through the Department's Canvas site, in which all Education students are enrolled. MCLA's Education Department also offers free and low-cost test preparation courses to help students pass the Massachusetts Tests for Educator Licensure (MTEL) exams—a requirement for all MA Initial teaching licenses.

Alliances and Partnerships with PK-12, Other IHE's, Community Employers

MCLA's Education Department reports strong and reciprocal relationships with PreK-12 public schools and districts across Berkshire County and the surrounding region. Every semester an average of 6 Early Childhood Education licensure students are placed in local schools including Pittsfield Public Schools, North Adams Public Schools, Mount Greylock Regional School District, Central Berkshire Regional School District, and Hoosac Valley Regional School District (formerly Adam-Cheshire). Input and feedback from partner schools and districts on the design and implementation of field-based experiences is solicited and welcome by MCLA and used to update and improve the PK-2 licensure program.

In addition, MCLAs Director of Field Experience presents for district faculty meetings to help inform and train experienced teachers in the role of Supervising Practitioner and to

⁵ *About | Handshake (joinhandshake.com) ... building an inclusive and diverse community—both on the Handshake platform and across our team. We believe diverse teams create more thoughtful and innovative solutions and that diverse companies are more successful ... retrieved 11/2/2021 ...*

strengthen district leadership pipelines through enrollment in the Leadership Academy⁶. MCLA faculty are boards members for local employers, including Childcare of the Berkshires. The Director of Field Experience regularly attends the meetings of the Elementary and Secondary Principal's Network, the Berkshire County Professional Development Committee, The Berkshire Compact Aspirations Committee, and the Berkshire Cultural Arts Network. These partnerships are reported to provide opportunities to collaborate with local leaders and businesses to leverage resources, explore internship possibilities, and provide practical experiences for students that will prepare them for success in the workplace. Specific to our Early Childhood Program, MCLA has recently partnered with the Hoosac Valley Regional School District to explore the possibility of creating an Early Childhood Learning Lab model at the High School that would include dual enrollment classes, and site-based learning for both high school seniors and MCLA Teacher Candidates in their preschool classrooms. MCLA is engaged with the Berkshire STEM Network's Regional Science Resource Center and the Teach to Learn project, both efforts that focus on science instruction in early childhood and elementary education.

Relationship to MassHire Regional Blueprints

MCLA indicated that, *Education (Teachers)* is listed as a “Critical Non-Priority” industry in the Berkshire's Regional Blueprint (MassHire Berkshire Workforce Board, 2020). As such, it does not fall within the “Priority” industry/occupation category but MCLA finds that it is considered a critical industry for the overall workforce development of the region. It is also found that the importance of education in the region must also be understood against the backdrop of a looming national teacher shortage (Garcia & Weiss, 2019), further compounded by new pandemic-related factors (Pressley, 2021). MCLA acknowledged the overlap in ESE teacher licensure between the Elementary (grades 1-6) and Early Childhood (grade PK-2) licenses, and noted that only those teachers licensed in Early Childhood Education, are qualified to teach in public school Pre-Kindergarten and Kindergarten classrooms. It was underscored that at least four local public-school districts are planning to start or expand PK programs, include the two

⁶ : *The Leadership Academy* (<https://www.mcla.edu/academics/graduate/leadershipacademy/index.php>) is MCLA's post-baccalaureate administrative licensure program.

largest districts in the region, Pittsfield and North Adams Public Schools⁷. A quote from one of the local Superintendents is indicative of the role MCLA's program plays in the region:

“Our principals (and their superintendent) really prefer the early childhood license to a general elementary license in the early grades, as we see the expertise in early development and literacy development as being crucial to laying the solid foundation for achievement that we need and want our students to have. We see your program as crucial to the good of our schools, our students, and to school districts throughout the region. We also see your program as a crucial potential next step for our Berkshire County graduates who begin their academic career at BCC to have in front of them to achieve the bachelors degree. Your program is the program in the region, and is vital for the good of the entirety of Berkshire county and our children.”

Any pre-school or kindergarten program in MA public schools, require that educators have obtained ESE's Early Childhood Initial license. MCLA's proposed program addresses a specific need of the regional early childhood landscape. Other needs in this arena are well met by both MCLA (through the degree completion program) and by BCC (through their Associates in Early Childhood Education certificate and degree programs).

Duplication

MCLA reports that there are no other ESE-approved PK-2 licensure programs offered in Berkshire County.

Innovative Approaches to Teaching and Learning

The program is aligned with ESE's PK-2 licensure Standards for Teachers and Subject Matter Knowledge. During three of the semesters in the program, it is expected that students participate in field-based experiences that rely on a comprehensive performance assessment (Candidate Assessment of Performance [CAP]; MA DESE, 2019).

In addition to this, MCLA's proposed BS/ECE directly addresses the MassTransfer pathway for Early Childhood Education. Evidence of a detailed set of MassTransfer A2B

⁷ https://www.berkshireeagle.com/news/local/proposed-pittsfield-schoolbudget-would-expand-pre-kindergarten-to-all-elementaryschools/article_e45d472e-82d3-11eb-94ed-ab9af6a6524d.html

pathways from Community Colleges to MCLA in the proposed BS/ECE program (as well as other ECE programs) were included in the Addendum to the LOI and submitted to DHE staff as part of the review. This adaptation to accommodate the difficulty of a bifurcated system with differentiated requirements is commendable.

B. ALIGNMENT WITH CAMPUS STRATEGIC PLAN AND MISSION

Priority Rationale and Support of Strategic Plan and Overall Mission of Institution

The proposed program directly addresses goals of MCLA's 2017-22 Strategic Plan: Respond to student and community needs in ways that enhance MCLA's distinctiveness, its role as a pioneering educational leader, and its value as an engine of regional growth; Enhance student persistence, completion, and preparation for post-college success; and strengthen and demonstrate a commitment to diversity, equity, and inclusion. The proposed Early Childhood Education degree is expected to directly support the broader regional community through the preparation of the next generation of licensed Early Childhood teachers. Through providing the opportunity to earn a bachelor's degree and an Initial PK-2 license, the proposed program prepares students to immediately join the workforce. The proposed program reduces the number of courses required for a student to complete the PK-2 licensure program, reducing barriers for all students, including transfer students from Community Colleges.

Program Goals and Learning Objectives (Form B)

MCLA reports that all goals and objectives are directly aligned with the requirements from MA ESE for initial licensure candidates.

ALIGNMENT WITH OPERATIONAL AND FINANCIAL OBJECTIVES OF INSTITUTION

Enrollment Projections (Form C, Appendices)

Although current Early Childhood Education licensure students have a higher average four-year retention rate than MCLA as a whole (70.8% vs. 55.6%, respectively), it is expected that current and future students enrolled in the proposed Early Childhood Education major to exhibit an even higher retention rate. The MCLA Admissions Office

has indicated that NOT having a stand-alone Early Childhood Education major is a deterrent for prospective students. The enrollment projections are based on a higher retention rate (80%), a slight increase in the number of new students, and an increase in the number of students graduating in four years, and are calculated using a 5-year annual enrollment baseline of 35 students

Resources and Financial Statement of Estimated Net Impact on Institution

(Form D Appendices)

WMCLA does not anticipate needing any additional resources for faculty, staff, space, or infrastructure.

STAFF REVIEW AND VALIDATION

Staff thoroughly reviewed the **LOI** proposing full degree granting authority for the **Bachelor of Science in Early Childhood Education** submitted by the **Massachusetts College of Liberal Arts**. Staff validate that the **LOI** includes all data required by the Massachusetts Board of Higher Education. Staff recommendation is for BHE authorization for the Commissioner to review the program pursuant to the Fast-Track review protocol.

Revised Form A1 (updated 10/27/21): LOI Undergraduate Program Curriculum Outline

<i>Required (Core) Courses in the Major (Total # courses required = 26)</i>		
*Denotes courses that fulfill general education Core Curriculum requirement		
<i>Course Number</i>	Course Title	Credit Hours
CCSS 269	Education & Society*	3
EDUC 338	Reading/Language Arts	3
EDUC 340	Field Placement I	2
EDUC 430	Teaching in an Inclusive Classroom	3
EDUC 305	Program Development for 3, 4, and 5 year olds	3
EDUC 324	Teaching Math/Science K-8	3
EDUC 420	Classroom Management/Teaching Strategies	3
EDUC 404	Sheltered English Instruction	3
EDUC 409	Curriculum & Instruction ECHE	3
EDUC 341	Field Placement II	2
EDUC 550	Student Teaching Practicum PK-K	3
ECUC 560	Student Teaching Practicum 1-2	6
EDUC 561	Student Teaching Seminar	3
CCCA 207	Children's Literature*	3
ENGL 150	College Writing II*	3
ENGL 250	Intro to Literature	3
MATH 100	Math for Educators I	3
MATH 102 or 232	Mathematics for Liberal Arts or Intro to Statistics*	3
HIST 113	United States History to 1877*	3
HIST 114	United States History after 1877*	3
HIST 125	World Regional Geography*	3
PSYC 208 or 210	(Applied) Developmental Psychology	3
PHED	Two credits of PHED courses; First-Aid/CPR recommended	2

ARTH 117 or MUSI 251 or THEA 200 or equivalent art course	Intro to Art History* or Intro to Music* or Intro to Theatre* (or equivalent art course)	3
ENVI 150 or 150H	Intro to Environmental Systems (or Honors)*	4
BIOL 100	Concepts in Biology*	4
	Sub Total Required Credits	80
Elective Courses (Total # courses required = 0) (attach list of choices if needed)		
N/A	N/A	
	Sub Total Elective Credits	0
Distribution of General Education Requirements		# of Gen Ed Credits
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Tier I core: Language at the 102 level (3 cr.); ENGL 150 English Composition II (3 cr.), Math (3 cr.), Wellness (3 cr)		12
Tier II core: Human Heritage (2 x 3 cr.), Creative Arts (2 x 3 cr.), Self & Society (2 x 3 cr.), plus Science & Technology (1 x 3 cr., 1 x 4 cr. w/lab)		25
Tier III core: Capstone (3 cr.)		3
Sub Total General Education Credits		9
Of the total 40 credits of General Education Requirements (CORE), 31 credits are satisfied by the major		
Curriculum Summary		
Total number of courses required for the degree	32	
Total credit hours required for degree	Gen Ed + Major = 89 Graduation Requirement = 120	
Prerequisite, Concentration or Other Requirements:		
There are no concentrations in the major.		

Massachusetts College of Liberal Arts
Core Curriculum Requirements and Courses

TIER I

CRITICAL READING, THINKING, WRITING

ENGL 150 College Writing II (3 credits)

QUANTITATIVE REASONING (1 course required)

Courses Fulfilling Quantitative Reasoning (all 3 credits):

MATH 102 Mathematics for Liberal Arts

MATH 150 Pre-calculus

MATH 220 Calculus I

MATH 232 Introduction to Statistics

LANGUAGE ARTS (1 course required)

Courses Fulfilling Language Arts (all 3 credits):

FREN 102 Elementary French II

ITAL 102 Elementary Italian II

MODL 102 Special Topics in Modern Language

SPAN 102 Elementary Spanish II

TIER II

CREATIVE ARTS (2 courses required)

Courses Fulfilling Creative Arts Tier II Domain (all 3 credits)

CCCA 101 Creative Arts: Methods & History

CCCA 102 The Art of Madness

CCCA 110 Topics in Creative Arts

CCCA 202 The Good Earth: Agrarianism
CCCA 203 Inventing Modernism
CCCA 205 Popular Hollywood Films: 1950s
CCCA 206 Rumi's Vision
CCCA 207 Children's Lit.: A Lively Art
CCCA 209 Contemporary American Poetry & the Times
ART 201 Studio: Art & Society
ARTH 117 Introduction to Art History
ARTH 217 Contemporary Art
DANC 100 Introduction to Dance
ENGL 210 Essentials of Film
ENGL 250 Introduction to Literature
ENGL 270 Literary Genre
MUSI 251 Introduction to Music
MUSI 253 World Music
THEA 120 Introduction to Performance
THEA 200 Introduction to Theatre
PHIL 120 Art & Philosophy
PHIL 120H Honors: Art & Philosophy

HUMAN HERITAGE (2 courses required)

Courses Fulfilling Human Heritage Tier II Domain (all 3 credits):

CCHH 101 Utopian Visions Fact & Fiction
CCHH 110 Topics in Human Heritage
CCHH 210 American Women Regionalist Writers
CCHH 220 Popular History and Biography
CCHH 221 Divine Witness
CCHH 223 The Great Depression
CCHH 230 Introduction to Latinx Studies

ENGL 207 Introduction to American Ethnic Studies
ENGL 265 Literary Theme
HIST 104 Modern World Civilization
HIST 113 United States History to 1877
HIST 114 United States History after 1877
HIST 125 World Regional Geography
HIST 220 Reformers, Rebels, and Revolutionaries in East Asia
HIST 230 War, Science, and Society
HIST 240 Reacting to the Past
HIST 250 Museums, Monuments, and History
HONR 100 The Nature of Human Nature
IDST 150 Introduction Cross-Cultural & Social Justice Studies
PHIL 100 A First Course in Philosophy
PHIL 110 World Religions
PHIL 110H Honors: World Religions
PHIL 200 Logic and Critical Reasoning
PHIL 200H Honors: Logic & Critical Reason

SELF AND SOCIETY (2 courses required)

Courses Fulfilling Self and Society Tier II Domain (all 3 credits):

CCSS 101 Contemporary Issues in Society
CCSS 102 Snapshots of Society
CCSS 110 Topics of Self and Society
CCSS 202 World Regions & New Global Order
CCSS 210 Landscapes of Human Activities
CCSS 260 Schools, the Law and Society
CCSS 264 Math of Fairness and Equity

CCSS 264H Honors: Math of Fairness & Equity

CCSS 268 Culture and the Body

CCSS 269 Education and Society

ANTH 130 Introduction to Sociocultural Anthropology

ANTH 140 Peoples of the World

BADM 100 Explorations in Business

COMM 204 Media, Self-Identity, and Society

ECON 141 Macroeconomics

ENGL 231 The Power of Words

HLTH 150 Introduction to Community and Public Health

HLTH 150H Honors: Introduction to Community and Public Health

HLTH 210 Human Growth and Development

IDST 299 Introduction to Interdisciplinary Studies

POSC 201 United States Government

POSC 202 Comparative Government

PSYC 100 Introduction to Psychology

PSYC 230 Social Psychology

SOCI 100 Introduction to Sociology

SOCI 201 Social Problems

SOCI 210 Families

SOCI 282 Social Constructions of Deviance

WGSS 201 Introduction to Women's Studies

SCIENCE AND TECHNOLOGY (2 courses required, at least one of which is a 4-credit lab course)

Courses Fulfilling Self and Society Tier II Domain:

*(4-credit courses denoted with *. All others are 3-credit courses)*

CCST 101 Topics in Physical Science

CCST 102 Case Study Approach to Science

CCST 103 Quarks to Quasars
CCST 105 The Chemistry of CSI
CCST 105H Honors: The Chemistry of CSI
CCST 106 The Physics of Superheroes
CCST 110 Topics in Physical Science with Lab *
CCST 111 Topics in Life Science
CCST 112 Topics in Life Science with Lab *
CCST 230 Energy and the Environment

BIOL 100 Concepts in Biology *
BIOL 102 Nutrition for Healthy Living with Lab *
BIOL 103 Nutrition for Healthy Living
BIOL 105 Human Biology
BIOL 150 Introduction to Biology I: Cells *
BIOL 255 Biodiversity
CHEM 150 Introduction to Chemistry I *
CHEM 152 Introduction to Chemistry II *
ENVI 150 Introduction to Environmental Systems *
ENVI 150H Honors: Intro to Environmental Systems*
ENVI 225 Nature of New England 4 cr *
ENVI 226 Nature of New England 3 cr
ERTH 151 Introduction to Physical Geography*
ERTH 152 Introduction to Physical Geology *
ERTH 245 Natural Hazards
ERTH 270 Weather and Climate
ERTH 271 Landforms*
HLTH 201 Exercise Science
PHYS 120 Introduction to Engineering *
PHYS 131 General Physics I *

PHYS 132 General Physics II *

PHYS 140 Astronomy

PHYS 151 Introduction to Mechanics *

PHYS 251 Introduction to Electricity & Magnetism *

TIER III CAPSTONE (3 credits): CCAP 300

In the Capstone Senior Seminar students apply academic learning to the context of contemporary local and global communities.

RECENT TIER III OFFERINGS

- Ethical Issues in Healthcare
- Picturing Animals
- Feminism and Theatre
- From DNA to Homo Sapiens
- Berkshire Art, Industry & Tourism
- Service Leadership
- News Literacy
- Light, Sight, & Insight
- Entrepreneurship & Culture
- Food, Nutrition, & Culture
- The Creative Economy of the Berkshires
- Film as Philosophy
- Conversations on Race in American Society
- Community Engagement in the Arts

Form B: LOI Goals and Objectives

Goal	Measurable Objective	Strategy for Achievement	Timetable
<p>Completers have the pedagogical skills (MA DESE Professional Standards for Teachers) to be effective in the licensure role.</p>	<p>(1) Curriculum, Planning, and Assessment standard: Promotes the learning and growth of all students by providing high quality and coherent instruction, designing and administering authentic and meaningful student assessments, analyzing student performance and growth data, using this data to improve instruction, providing students with constructive feedback on an on-going basis, and continuously refining learning objectives.</p>	<p>All Education courses required for the major address one or more of the four PSTs, and are assessed at more than one time, including at the completion of the program through the state-mandated Candidate Assessment of Performance (CAP; MA DESE 2019).</p>	<p>Currently in place.</p>
	<p>(2) Teaching All Students standard: Promotes the learning and growth of all students through instructional practices that establish high expectations, create a safe and effective classroom environment, and demonstrate cultural proficiency.</p>		
	<p>(3) Family and Community Engagement standard: Promotes the learning and growth of all students through effective partnerships with families, caregivers, community members, and organizations.</p>		
	<p>(4) Professional Culture standard: Promotes the learning and growth of all students through ethical, culturally proficient, skilled, and collaborative practice.</p>		
<p>Completers have the content knowledge (MA DESE Subject Matter Knowledge [SMK] requirements) to be effective in the licensure role.</p>	<p>Cross-cutting SMKs</p>	<p>The combination of licensure and SMK courses required for the major address all of the SMKs, and are assessed fully through the state-mandated Candidate Assessment of Performance (CAP; MA DESE, 2019).</p>	
	<p>Early Childhood PK-2 SMKs</p>		

Form C: LOI Program Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5
New Full-Time	8	9	10	11	12
Continuing Full-Time	20	21	21	23	26
New Part-Time	1	1	1	1	1
Continuing Part-Time	4	4	5	5	5
Totals	35	37	39	42	46

One Time/ Start Up Costs			Annual New Enrollment				
	Cost Categories	Year 1	Year 2	Year 3	Year 4	Year 5	
	Full Time Faculty* <i>(Salary & Fringe)</i>	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs	
	Part Time/Adjunct Faculty <i>(Salary & Fringe)</i>	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs	
	Staff	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs	
	General Administrative Costs	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs	
	Instructional Materials, Library Acquisitions	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs	
	Facilities/Space/Equipment	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs	
	Field & Clinical Resources	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs	
	Marketing	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs	

	Other (Specify)	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs

Form D: LOI Program Budget

MCLA expects no new costs, and revenues are derived from the projection of new students. As the major will continue to be within the department of Education, there will be no reallocation of funds or additional departmental costs.

<i>One Time/Start-Up Support</i>		<i>Annual Income</i>				
		<i>0</i>	<i>2</i>	<i>4</i>	<i>7</i>	<i>11</i>
	<i>Annual net enrollment over 5-year average enrollment baseline of 35 students</i>					
	<i>Revenue Sources</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
	Grants					
	Tuition @ \$1,030 per student	\$0	\$2,060	\$4,120	\$7,120	\$11,330
	Fees @ \$10,351 per student	\$0	\$20,702	\$41,404	\$73,717	\$113,861
	Departmental					
	Reallocated Funds					
	Other (specify) Standard room and Board for 75% of enrolled students @ \$12,267/ student	\$0	\$24,534	\$49,068	\$85,869	\$134,937
	TOTALS	\$0	\$47,296	\$94,592	\$165,536	\$260,128

**BOARD OF HIGHER EDUCATION
REQUEST FOR BOARD ACTION**

NO.: BHE 22- 18

EXECUTIVE COMMITTEE DATE: December 6, 2021

BOARD DATE: December 14, 2021

**APPROVAL OF LETTER OF INTENT OF MASSACHUSETTS COLLEGE OF
LIBERAL ARTS TO AWARD THE BACHELOR OF SCIENCE IN ELEMENTARY
EDUCATION AND AUTHORIZATION FOR FAST TRACK REVIEW**

MOVED: The Board of Higher Education (BHE) has evaluated the Letter of Intent of the Massachusetts College of Liberal Arts to award the **Bachelor of Science in Elementary Education** and has determined that the proposal aligns with BHE criteria. Accordingly, the BHE authorizes the Commissioner to review the program and to make a final determination on degree-granting authority pursuant to the Fast Track Review protocol.

VOTED: Motion approved and advanced to the full BHE by the Executive Committee on 12/6/2021; and adopted by the BHE on 12/14/2021.

Authority: Massachusetts General Laws Chapter 15A, Section 9(b); AAC 18-40

Contact: Winifred M. Hagan, Ed.D., Senior Associate Commissioner for Strategic Planning and Public Program Approval

**BOARD OF HIGHER EDUCATION
December 2021
Massachusetts College of Liberal Arts
Letter of Intent
Bachelor of Science in Elementary Education**

DEGREE TITLE ABSTRACT ON INTENT AND MISSION OF PROGRAM

The Massachusetts College of Liberal Arts (MCLA) proposed Bachelor of Science in Elementary Education (BS/EE) is intended to enable students to obtain a Massachusetts Initial teaching license in Elementary 1-6, a requirement to teach in Massachusetts public school first through sixth grade classrooms. A very similar program currently serves students at MCLA as a concentration in Elementary Education within the approved Bachelor of Science in Education major. The intent of this proposal is to create a direct pathway for students to complete a Massachusetts Elementary and Secondary Education (ESE) Approved Licensure Elementary 1-6 course of study, enabling students to complete the degree in a timely and efficient manner. The proposed major is planned to familiarize students with issues, techniques, and concepts related to contemporary public-school teaching, include opportunities for students to learn to create democratic places of learning through relationship building, and is aligned with MA ESE requirements for 1-6 licensure-approved programs.

The proposed Bachelor of Science in Elementary Education was approved by the Massachusetts College of Liberal Arts Board of Trustees on March 1, 2021. The LOI was circulated on September 16, 2021. No comments were received.

A. ALIGNMENT WITH MASSACHUSETT'S GOALS FOR HIGHER EDUCATION

Address Gaps in Opportunity and Achievement in Alignment with Campus-Wide Goals

MCLA reports that by enabling students to major in Elementary Education as a stand-alone major (no double major), students will be helped to complete their education efficiently focusing on the credits that will get them directly to graduation with as close to 120 credits as possible. Currently, MCLA Education majors with a concentration and licensure in Elementary Education graduate with an average of 142 credits (for those

who graduated during the 2018-19, 2019-20, and 2020-21 academic years), representing at least an additional semester of credits. This proposed major will allow students to graduate with 120 credits, reducing the current additional credit burden. This aligns with MCLA's Strategic Goal 2, to "Enhance student persistence, completion, and preparation for post-college success" (MCLA, 2017).

A stand-alone major in Elementary Education provides students with an opportunity to focus more deeply on the issues they care about in this field. MCLA reports that research shows one of the reasons educators of color tend to leave the profession is because of the large amount of micromanagement associated with teaching in public schools (e.g., Kaput, 2019). By moving the Elementary Education program from its current structure as a concentration within the Education degree with the requirement that students enroll in an additional major, to a single standalone major, MCLA expects to provide greater opportunities to expose students to issues currently present in schools earlier in their college career. For example, students have the opportunity to take courses that significantly expand their focus on elementary education content including courses about Families; Race and Ethnic Relations; Sociology of Education and Childhood; Behavior Analysis; Children with Special Needs; etc. Simplifying the requirements is further expected to remove a set of early obstacles and restrictions that potential educators of color might encounter. These factors are planned to be in alignment with the goals of the DHE's equity agenda and MCLA's Strategic Goal 3, to "Strengthen and demonstrate our commitment to diversity, equity, and inclusion" (MCLA, 2017).

In addition, MCLA is connecting existing and new initiatives, planned to result in a more diverse set of teachers completing education programs by collaborating with local institutions (e.g. NAACP Berkshire Branch, Berkshire Community College, Berkshire County Superintendent's Roundtable etc.), around a large initiative currently titled "Berkshire County Diverse Teaching Workforce Initiative." This initiative, still in the planning stages, with initial work scheduled to take place spring 2022, holds as its mission: Building and supporting anti racist teaching and learning in Berkshire County School Districts through collaboration between NAACP, BCC, MCLA, Berkshire County

School Districts, and community partners to: 1) recruit, retain, and support teachers of color in Berkshire County schools thereby building a racially diverse teaching force; and 2) provide current Berkshire County School District paraprofessionals, teachers and administrators programming in anti-racist teaching/DEI and the conditions in which this teaching thrives, so that all students learn with and from a racially diverse teaching force and are prepared for post-secondary experiences in a racially diverse world.

This initiative takes three related approaches that build on previous work in the county:

1) Berkshire Teaching Fellows, a teaching internship program for students enrolled in HBCUs and Berkshire County institutions of higher education (including MCLA); Greylock Teach Fellows Dual Enrollment, a dual enrollment program for high school students exploring or aspiring to the teaching profession; and Professional Development Programming, especially through a “Teachers Institute” for educator and administrator professional development, as well as support for educator Licensure/Certification pathways. MCLA is also partnering with local districts to pilot a mentoring program that will support teams of teachers and paraprofessionals. This work recently received funding from the Berkshire County Education Task Force¹ for a pilot year to work with North Adams Public Schools and Pittsfield Public Schools. This work is notable, given the paraprofessional and teaching assistant workforce is more diverse than the teaching workforce, and MCLA can offer paraprofessionals a pathway to Initial licensure, including through this proposed BS in Elementary Education. In addition to this work, MCLA continues to participate as a partner and on the leadership team for MassTeach, a program to recruit and support teaching candidates of color in STEM from community colleges to four-year public universities (including MCLA). MassTeach is another example of the strong and collaborative relationship between MCLA and BCC. Whether as part of the Greylock Teach Fellows dual enrollment program mentioned above or through other dual enrollment pathways, enabling students to complete a BS in Elementary Education without requiring a second major means that students who complete education courses, like Education & Society, as part of Dual Enrollment are significantly closer than they previously have been to completing their

¹ <https://www.berkshireeducationtaskforce.org/>

undergraduate coursework. This in turn increases pathways to getting a teaching license for students from racially and linguistically² diverse backgrounds.

Program or Department Supports to Ensure Student Retention and Completion

The Education Department at MCLA offers critical supports to ensure students persist and complete the licensure and graduation requirements. Students are assigned an Education Advisor, with whom they meet each semester. Advisors and students will use college-wide resources to track students' progress (e.g., *DegreeWorks*³), as well as Education Department-specific documents that help clarify the sequence and overall plan of study for the Elementary Education major. Students take part in numerous built-in opportunities for feedback and support, especially during their field-based experiences, including Gateway and Benchmark Assessments.

The small department at MCLA is reported to provide many opportunities for students to form ongoing, meaningful relationships with faculty, beginning in their first year with Core courses like *Education and Society*, and *Children's Literature*, and continuing through student's supervised field-based experiences prior to graduation. The department also offers an Education Collective, which is an extracurricular club designed to help students build community and engage in research pursuits. As well, the Education Department, through its network of local partner schools and districts, connects students to numerous opportunities for both volunteer and a majority of paid opportunities in local schools, thus making and strengthening more connections between students and local educators. Opportunities are posted through the Department's Canvas site, in which all Education students are enrolled. MCLA's Education Department also offers free and low-cost test preparation courses to help

² Benchmark assessments provide opportunities across our licensure program to ensure that teacher candidates are meeting the required Professional Standards for Teachers. These assessments are built into coursework and evidence is collected by the instructors of the courses in which these assessments are embedded. The assessments provide evidence of teacher candidates meeting the PSTs, as well as to provide focused feedback and support as needed. Gateway assessments are a required part of our educator preparation program, as described in the pre-practicum guidelines and are embedded in pre-practicum courses. Gateways are intended to "evaluate initial licensure teacher candidate performance in early field-based experiences (the 'pre-practicum') by administering at least two licensure-specific performance tasks, or 'gateways.'" Gateways provide opportunity to 1) identify at-risk candidates and provide them with the necessary supports and guidance to improve or exit the program.

³ DegreeWorks is a degree audit program and an academic advisement tool designed to help students understand the degree requirements for a major.

students pass the Massachusetts Tests for Educator Licensure (MTEL) exams—a requirement for all MA Initial teaching licenses. In addition to collaborative regional efforts, the Education Department pays particular attention to the unique role of programs, preparing teachers for the systems in which they will work while acknowledging and working to disrupt parts of those systems that are inequitable. Threaded throughout MCLA's curriculum, including in the proposed BS in Elementary Education, is an active effort to prepare teachers to be critical pedagogues who focus on social justice.

Alliances and Partnerships with PK-12, Other IHE's, Community Employers

MCLA's Education Department reports strong and reciprocal relationships with PreK-12 public schools and districts across Berkshire County and the surrounding region. Every semester an average of 13 Elementary Education licensure students are placed in local schools including Pittsfield Public Schools, North Adams Public Schools, Mount Greylock Regional School District, Central Berkshire Regional School District, and Hoosac Valley Regional School District (formerly Adam-Cheshire). Input and feedback from partner schools and districts on the design and implementation of field-based experiences is solicited and welcome by MCLA and used to update and improve the PK-2 licensure program.

In addition, MCLAs Director of Field Experience presents for district faculty meetings to help inform and train experienced teachers in the role of Supervising Practitioner and to strengthen district leadership pipelines through enrollment in the Leadership Academy⁴. MCLA faculty are boards members for local employers, including Childcare of the Berkshires. The Director of Field Experience regularly attends the meetings of the Elementary and Secondary Principal's Network, the Berkshire County Professional Development Committee, The Berkshire Compact Aspirations Committee, and the Berkshire Cultural Arts Network. These partnerships are reported to provide opportunities to collaborate with local leaders and businesses to leverage resources, explore internship possibilities, and provide practical experiences for students that will

⁴ MCLA's post-baccalaureate administrative licensure program. [tps://www.mcla.edu/academics/graduate/leadership_academy/index.php](https://www.mcla.edu/academics/graduate/leadership_academy/index.php) is

prepare them for success in the workplace. MCLA is engaged with the Berkshire STEM Network's Regional Science Resource Center and the Teach to Learn project, both efforts that focus on science instruction in elementary education.

Relationship to MassHire Regional Blueprints

Education (Teachers) is listed as a "Critical Non-Priority" industry in the Berkshire's Regional Blueprint (MassHire Berkshire Workforce Board, 2020). As such, it does not fall within the "Priority" industry/occupation category but is considered a critical industry for the overall workforce development of the region. The importance of education in the region must also be understood against the backdrop of a looming national teacher shortage (Garcia & Weiss, 2019), compounded by new pandemic-related factors (Pressley, 2021).

Duplication

MCLA reports that Berkshire Community College offers an Associate of Art degree in Elementary Education, but does not offer a licensure program nor a Bachelor's degree in Elementary Education.

Innovative Approaches to Teaching and Learning

The program is aligned with ESE's 1-6 licensure Standards for Teachers and Subject Matter Knowledge. During three of the semesters in the program, it is expected that students participate in field-based experiences that rely on a comprehensive performance assessment (Candidate Assessment of Performance [CAP]; MA DESE, 2019).

The Education Department at MCLA has long-standing and close relationships with the Education Department at Berkshire Community College (BCC), including elementary education. In addition to MCLA's collaborative work at the state-level with MassTransfer's A2B pathways and as part of the DHE's Elementary Education Convening (attended by MCLA Department Chair, who also served as segment leader for Elementary Education), MCLA has also met multiple times in the past year to better align coursework for elementary licensure candidates transferring from BCC to MCLA.

From these meetings, we have agreed on a specific set of courses to recommend for BCC students hoping to pursue elementary education at MCLA, including both “licensure” courses (those that are part of the foundational elementary courses in MassTeach) and the “content” or “Subject Matter Knowledge” courses that meet the newly instituted Subject Matter Knowledge (SMK) requirements for the Elementary Initial license. These conversations have led to BCC Education faculty working with their Mathematics Department to begin planning for a course similar to MCLA’s “Math for Educators I” course. The details of the agreement between BCC and MCLA were provided in a rubric included in the full LOI proposal.

B. ALIGNMENT WITH CAMPUS STRATEGIC PLAN AND MISSION

Priority Rationale and Support of Strategic Plan and Overall Mission of Institution

The proposed program directly addresses goals of MCLA’s 2017-22 Strategic Plan: Respond to student and community needs in ways that enhance MCLA’s distinctiveness, its role as a pioneering educational leader, and its value as an engine of regional growth; Enhance student persistence, completion, and preparation for post-college success; and strengthen and demonstrate a commitment to diversity, equity, and inclusion. The proposed Elementary Education degree is expected to directly support the broader regional community through the preparation of the next generation of licensed Elementary Education teachers. Through providing the opportunity to earn a bachelor’s degree and an Initial 1-6 license, the proposed program prepares students to immediately join the workforce. The proposed program reduces the number of courses required for a student to complete the 1-6 licensure program, reducing barriers for all students, including transfer students from Community Colleges.

Program Goals and Learning Objectives (Form B)

MCLA reports that all goals and objectives are directly aligned with the requirements from MA ESE for Initial licensure candidates.

C. ALIGNMENT WITH OPERATIONAL AND FINANCIAL OBJECTIVES OF INSTITUTION

Enrollment Projections (Form C, Appendices)

Although current Elementary Education licensure students have a higher average four-year retention rate than MCLA as a whole (70.8% vs. 55.6%, respectively), it is expected that current and future students enrolled in the proposed Elementary Education major to exhibit an even higher retention rate. The MCLA Admissions Office has indicated that NOT having a stand-alone Elementary Education major is a deterrent for prospective students. The enrollment projections are based on a higher retention rate (80%), a slight increase in the number of new students, and an increase in the number of students graduating in four years and are calculated using a 5-year annual enrollment baseline of 35 students. MCLA is actively working to create systemic change in Berkshire county to create a more diverse teaching workforce, as described previously in this motion. MCLA offers significant MTEL supports for students pursuing the Elementary 1-6 Initial license, including direct supports for 4 of the 5 MTEs they are required to pass for the license.

Resources and Financial Statement of Estimated Net Impact on Institution (Form D Appendices)

MCLA does not anticipate needing any additional resources for faculty, staff, space, or infrastructure.

STAFF REVIEW AND VALIDATION

Staff thoroughly reviewed the **LOI** proposing full degree granting authority for the **Bachelor of Science in Elementary Education** submitted by the **Massachusetts College of Liberal Arts**. Staff validate that the **LOI** includes all data required by the Massachusetts Board of Higher Education. Staff recommendation is for BHE authorization for the Commissioner to review the program pursuant to the Fast-Track review protocol.

References

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Form A1: LOI Undergraduate Program Curriculum Outline Form A1: LOI Undergraduate Program Curriculum Outline

(Insert additional rows as necessary)

<i>Required (Core) Courses in the Major (Total # courses required = 25)</i>		
<i>*Denotes courses that fulfill general education Core Curriculum requirement</i>		
<i>Course Number</i>	Course Title	Credit Hours
CCSS 269	Education & Society*	3
EDUC 338	Reading/Language Arts	3
EDUC 340	Field Placement I	2
EDUC 430	Teaching in an Inclusive Classroom	3
EDUC 324	Teaching Math/Science K-8	3
EDUC 420	Classroom Management/Teaching Strategies	3
EDUC 404	Sheltered English Instruction	3
EDUC 412	Curriculum & Instruction 1-6	3
EDUC 341	Field Placement II	2
ECUC 570	Student Teaching Practicum 1-6	9
EDUC 571	Student Teaching Seminar 1-6	3
CCCA 207	Children's Literature*	3
ENGL 150	College Writing II*	3
ENGL 250	Intro to Literature	3
MATH 100	Math for Educators I	3
MATH 101	Math for Educators II	3
MATH 232	Intro to Statistics*	3
HIST 113	United States History to 1877*	3
HIST 114	United States History after 1877*	3
HIST 125	World Regional Geography*	3
PSYC 208 or 210	(Applied) Developmental Psychology	3
PHED	Two credits of PHED courses; First-Aid/CPR recommended	2

ARTH 117 or MUSI 251 or THEA 200 or equivalent art course	Intro to Art History* or Intro to Music* or Intro to Theatre* (or equivalent art course)	3
ENVI 150 or 150H	Intro to Environmental Systems* (or Honors)	4
BIOL 100	Concepts in Biology*	4
	Sub Total Required Credits	80
Elective Courses (Total # courses required = 0) (attach list of choices if needed)		
N/A	N/A	
	Sub Total Elective Credits	0
Distribution of General Education Requirements		# of Gen Ed Credits
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Tier I core: Language at the 102 level (3 cr.); ENGL 150 English Composition II (3 cr.), Math (3 cr.), Wellness (3 cr)		12
Tier II core: Human Heritage (2 x 3 cr.), Creative Arts (2 x 3 cr.), Self & Society (2 x 3 cr.), plush Science & Technology (1 x 3 cr., 1 x 4 cr. w/lab)		25
Tier III core: Capstone (3 cr.)		3
Sub Total General Education Credits		9
Of the total 40 credits of General Education Requirements (CORE), 31 credits are satisfied by the major		
Curriculum Summary		
Total number of courses required for the degree	31	
Total credit hours required for degree	Gen Ed + Major = 89 Graduation Requirement = 120	
Prerequisite, Concentration or Other Requirements:		
There are no concentrations in the major.		

Massachusetts College of Liberal Arts
Core Curriculum Requirements and Courses

TIER I

CRITICAL READING, THINKING, WRITING

ENGL 150 College Writing II (3 credits)

QUANTITATIVE REASONING (1 course required)

Courses Fulfilling Quantitative Reasoning (all 3 credits):

MATH 102 Mathematics for Liberal Arts

MATH 150 Pre-calculus

MATH 220 Calculus I

MATH 232 Introduction to Statistics

LANGUAGE ARTS (1 course required)

Courses Fulfilling Language Arts (all 3 credits):

FREN 102 Elementary French II

ITAL 102 Elementary Italian II

MODL 102 Special Topics in Modern Language

SPAN 102 Elementary Spanish II

TIER II

CREATIVE ARTS (2 courses required)

Courses Fulfilling Creative Arts Tier II Domain (all 3 credits)

CCCA 101 Creative Arts: Methods & History

CCCA 102 The Art of Madness

CCCA 110 Topics in Creative Arts

CCCA 202 The Good Earth: Agrarianism

CCCA 203 Inventing Modernism

CCCA 205 Popular Hollywood Films: 1950s

CCCA 206 Rumi's Vision

CCCA 207 Children's Lit.: A Lively Art
CCCA 209 Contemporary American Poetry & the Times
ART 201 Studio: Art & Society
ARTH 117 Introduction to Art History
ARTH 217 Contemporary Art
DANC 100 Introduction to Dance
ENGL 210 Essentials of Film
ENGL 250 Introduction to Literature
ENGL 270 Literary Genre
MUSI 251 Introduction to Music
MUSI 253 World Music
THEA 120 Introduction to Performance
THEA 200 Introduction to Theatre
PHIL 120 Art & Philosophy
PHIL 120H Honors: Art & Philosophy

HUMAN HERITAGE (2 courses required)

Courses Fulfilling Human Heritage Tier II Domain (all 3 credits):

CCHH 101 Utopian Visions Fact & Fiction
CCHH 110 Topics in Human Heritage
CCHH 210 American Women Regionalist Writers
CCHH 220 Popular History and Biography
CCHH 221 Divine Witness
CCHH 223 The Great Depression
CCHH 230 Introduction to Latinx Studies
ENGL 207 Introduction to American Ethnic Studies
ENGL 265 Literary Theme
HIST 104 Modern World Civilization
HIST 113 United States History to 1877

HIST 114 United States History after 1877
HIST 125 World Regional Geography
HIST 220 Reformers, Rebels, and Revolutionaries in East Asia
HIST 230 War, Science, and Society
HIST 240 Reacting to the Past
HIST 250 Museums, Monuments, and History
HONR 100 The Nature of Human Nature
IDST 150 Introduction Cross-Cultural & Social Justice Studies
PHIL 100 A First Course in Philosophy
PHIL 110 World Religions
PHIL 110H Honors: World Religions
PHIL 200 Logic and Critical Reasoning
PHIL 200H Honors: Logic & Critical Reason

SELF AND SOCIETY (2 courses required)

Courses Fulfilling Self and Society Tier II Domain (all 3 credits):

CCSS 101 Contemporary Issues in Society
CCSS 102 Snapshots of Society
CCSS 110 Topics of Self and Society
CCSS 202 World Regions & New Global Order
CCSS 210 Landscapes of Human Activities
CCSS 260 Schools, the Law and Society
CCSS 264 Math of Fairness and Equity
CCSS 264H Honors: Math of Fairness & Equity
CCSS 268 Culture and the Body
CCSS 269 Education and Society
ANTH 130 Introduction to Sociocultural Anthropology
ANTH 140 Peoples of the World
BADM 100 Explorations in Business

COMM 204 Media, Self-Identity, and Society
ECON 141 Macroeconomics
ENGL 231 The Power of Words
HLTH 150 Introduction to Community and Public Health
HLTH 150H Honors: Introduction to Community and Public Health
HLTH 210 Human Growth and Development
IDST 299 Introduction to Interdisciplinary Studies
POSC 201 United States Government
POSC 202 Comparative Government
PSYC 100 Introduction to Psychology
PSYC 230 Social Psychology
SOC1 100 Introduction to Sociology
SOC1 201 Social Problems
SOC1 210 Families
SOC1 282 Social Constructions of Deviance
WGSS 201 Introduction to Women's Studies

SCIENCE AND TECHNOLOGY (2 courses required, at least one of which is a 4-credit lab course)

Courses Fulfilling Self and Society Tier II Domain:

*(4-credit courses denoted with *. All others are 3-credit courses)*

CCST 101 Topics in Physical Science
CCST 102 Case Study Approach to Science
CCST 103 Quarks to Quasars
CCST 105 The Chemistry of CSI
CCST 105H Honors: The Chemistry of CSI
CCST 106 The Physics of Superheroes
CCST 110 Topics in Physical Science with Lab *
CCST 111 Topics in Life Science
CCST 112 Topics in Life Science with Lab *

CCST 230 Energy and the Environment

BIOL 100 Concepts in Biology *

BIOL 102 Nutrition for Healthy Living with Lab *

BIOL 103 Nutrition for Healthy Living

BIOL 105 Human Biology

BIOL 150 Introduction to Biology I: Cells *

BIOL 255 Biodiversity

CHEM 150 Introduction to Chemistry I *

CHEM 152 Introduction to Chemistry II *

ENVI 150 Introduction to Environmental Systems *

ENVI 150H Honors: Intro to Environmental Systems*

ENVI 225 Nature of New England 4 cr *

ENVI 226 Nature of New England 3 cr

ERTH 151 Introduction to Physical Geography*

ERTH 152 Introduction to Physical Geology *

ERTH 245 Natural Hazards

ERTH 270 Weather and Climate

ERTH 271 Landforms*

HLTH 201 Exercise Science

PHYS 120 Introduction to Engineering *

PHYS 131 General Physics I *

PHYS 132 General Physics II *

PHYS 140 Astronomy

PHYS 151 Introduction to Mechanics *

PHYS 251 Introduction to Electricity & Magnetism *

TIER III CAPSTONE (3 credits): CCAP 300

In the Capstone Senior Seminar students apply academic learning to the context of contemporary local and global communities.

RECENT TIER III OFFERINGS

- Ethical Issues in Healthcare
- Picturing Animals
- Feminism and Theatre
- From DNA to Homo Sapiens
- Berkshire Art, Industry & Tourism
- Service Leadership
- News Literacy
- Light, Sight, & Insight
- Entrepreneurship & Culture
- Food, Nutrition, & Culture
- The Creative Economy of the Berkshires
- Film as Philosophy
- Conversations on Race in American Society
- Community Engagement in the Arts

Form B: LOI Goals and Objectives

Goal	Measurable Objective	Strategy for Achievement	Timetable
<p>Completers have the pedagogical skills (MA DESE Professional Standards for Teachers) to be effective in the licensure role.</p>	<p>(1) Curriculum, Planning, and Assessment standard: Promotes the learning and growth of all students by providing high quality and coherent instruction, designing and administering authentic and meaningful student assessments, analyzing student performance and growth data, using this data to improve instruction, providing students with constructive feedback on an on-going basis, and continuously refining learning objectives.</p>	<p>All Education courses required for the major address one or more of the four PSTs, and are assessed at more than one time, including at the completion of the program through the state-mandated Candidate Assessment of Performance (CAP; MA DESE, 2019).</p>	<p>Currently in place.</p>
	<p>(2) Teaching All Students standard: Promotes the learning and growth of all students through instructional practices that establish high expectations, create a safe and effective classroom environment, and demonstrate cultural proficiency.</p>		

	<p>(3) Family and Community Engagement standard: Promotes the learning and growth of all students through effective partnerships with families, caregivers, community members, and organizations.</p>		
	<p>(4) Professional Culture standard: Promotes the learning and growth of all students through ethical, culturally proficient, skilled, and collaborative practice.</p>		
<p>Completers have the content knowledge (MA DESE Subject Matter Knowledge [SMK] requirements) to be effective in the licensure role.</p>	<p>Cross-cutting SMKs</p>	<p>The combination of licensure and SMK courses required for the major address all of the SMKs, and are assessed fully through the state-mandated Candidate Assessment of Performance (CAP; MA DESE, 2019).</p>	
	<p>Elementary 1-6 SMKs</p>		

Form C: LOI Program Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5
New Full-Time	10	11	12	13	14
Continuing Full-Time	30	30	31	32	35
New Part-Time	1	1	1	1	1
Continuing Part-Time	2	3	3	4	4
Totals	52	54	56	59	63

Form D: LOI Program Budget

One Time/ Start Up Costs		Annual Enrollment				
	Cost Categories	Year 1	Year 2	Year 3	Year 4	Year 5
	Full Time Faculty <i>(Salary & Fringe)</i>	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs
	Part Time/Adjunct Faculty <i>(Salary & Fringe)</i>	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs
	Staff	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs
	General Administrative Costs	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs
	Instructional Materials, Library Acquisitions	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs
	Facilities/Space/Equipment	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs
	Field & Clinical Resources	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs

	Marketing	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs
	Other (Specify)	No additional costs	No additional costs	No additional costs	No additional costs	No additional costs
One Time/Start-Up Support			Annual Income			
	Annual net enrollment over 5-year average enrollment baseline of 50 students	2	4	6	9	13
	Revenue Sources	Year 1	Year 2	Year 3	Year 4	Year 5
	Grants					
	Tuition @ \$1,030 per student	\$2,060	\$4,120	\$6,180	\$9,270	\$13,390
	Fees @ \$10,351 per student	\$20,702	\$41,404	\$62,106	\$93,159	\$134,563
	Departmental					
	Reallocated Funds					
	Other (specify) Standard room and Board for 75% of enrolled students @ \$12,267/ student	\$24,534	\$49,068	\$73,602	\$110,403	\$159,471
	TOTALS	\$47,296	\$94,592	\$141,888	\$212,832	\$307,424