



U.S. News & World Report
"Best High School" since 2017
2024 Rankings:

- #4 Public High School in Massachusetts
- #3 Public High School in Boston Metro Area
- #228 Public High School in nation
- #56 Public Charter High School in nation

Dr. Lisa C. Mobley
Executive Director

Mike Nawrocki
Principal

Amanda Cence
Vice Principal

James Fortier
Dean of Students

Pete Jones
Director of Athletics

Kate Driver
Director of
School Counseling

Wylie Culhane
School Counselor

Lindsay Currallo
School Counselor

Chris Dugan
School Counselor

Sarah Morrissey
School Counselor



2024-2025 High School Profile

Advanced Math & Science Academy Charter School

AMSA MISSION

This statement from AMSA's Charter remains the foundation of all that we do:

The Advanced Math & Science Academy will create an atmosphere of celebration of knowledge where children of all backgrounds and abilities excel in all subjects, especially in math, science and technology, empowering them to succeed in the workplace in our modern high-tech world.

AMSA CORE VALUES

Building upon our Mission, we undertook a lengthy process of self reflection involving all stakeholders in the AMSA community. What emerged became AMSA's Core Values. Collectively, we take pride in these values, and we promote them within and outside of our school. Individually, we hold ourselves responsible for embodying and reflecting these values each and every day.

MODEL INTEGRITY - Model integrity by being truthful in our work and caring in our relationships with people.

PURSUE YOUR EXCELLENCE - Pursue excellence by embracing the joy of learning, by being curious, by working hard, by persevering in the face of obstacles, by embracing creativity and innovation, and by constantly striving to improve. At AMSA, we reach for the stars!

FOSTER COMMUNITY - Foster community by being good citizens -- by helping others, by appreciating and celebrating diversity, and by collaborating kindly and supportively.

COMMUNITY & ENROLLMENT FOR 2024-2025

The Advanced Math & Science Academy (AMSA) opened its doors in 2005 and is located about 35 miles west of Boston. AMSA is a seven year, comprehensive public charter school, educating students in grades 6-12.

Admittance to AMSA is based on a space-availability lottery. There are no entrance exams. While preference in admission is given to families from AMSA's core towns of Clinton, Hudson, Marlborough, and Maynard, students travel to AMSA from 36 different communities.

CLASS SIZES: Grade 9 = **139** Grade 10 = **148** Grade 11 = **128** Grade 12 = **127**

NATIONAL HONOR SOCIETY

The Advanced Math and Science Academy Charter School Chapter of the National Honor Society (NHS) selects members based on scholarship, service, leadership, and character. Eligible candidates must be juniors or seniors with a minimum unweighted GPA of 3.70. The selection process involves a review of academic records, completion of a Candidate's Form, and faculty evaluations. Final selections are made by a Faculty Council through a majority vote. Inducted members are expected to maintain high standards and actively participate in service projects.

"I can't say enough about the galactic difference between AMSA and other schools our children have attended. The community of teachers and administrators at AMSA has been exceptional, and the quality of students is second to none."

Parents of Graduate, 7th Grader, and 12th Grader

GRADING SYSTEM / CLASS RANK / GPA CALCULATION

GPA is cumulative and we report weighted GPA on a 5.0 scale. GPA is calculated annually, beginning at the end of 9th grade. A GPA factor of 0.5 is added for Honors / Advanced level classes. A GPA factor of 1.0 is added for Advanced Placement / Accelerated courses. AMSA does not rank.

Alpha	Numeric	AP / Accelerated	Honors / Advanced	CP
A+	96.5 & above	5.30	4.80	4.30
A	92.5 – 96.0	5.00	4.50	4.00
A-	89.5 – 92.0	4.70	4.20	3.70
B+	86.5 – 89.0	4.30	3.80	3.30
B	82.5 – 86.0	4.00	3.50	3.00
B-	79.5 – 82.0	3.70	3.20	2.70
C+	76.5 – 79.0	3.30	2.80	2.30
C	72.5 – 76.0	3.00	2.50	2.00
C-	69.5 – 72.0	2.70	2.20	1.70
D+	66.5 – 69.0	2.30	1.80	1.30
D	62.5 – 66.0	2.00	1.50	1.00
D-	59.5 – 62.0	1.70	1.20	0.70
F	Below 59.5	0.00	0.00	0.00

AMSA 2024 SAT Cohort			
Percentile	Total	EBR	Math
75 th	1370	670	700
50 th	1220	600	630
25 th	1100	540	560

“Every student is held to a high standard, and they are accomplishing amazing things. There are so many opportunities here for students that I haven’t seen in other schools.”

AMSA Teacher

COURSE LEVELS

Un-leveled – Courses have no distinction between College Prep or Honors. These include art, computer science, physical education, health and wellness, and most elective courses.

College Preparatory (CP) – Courses are designed to prepare students for success in college.

Honors (H) and Advanced (Adv) – These classes cover more complex material, permit further in-depth study than a CP course and require independent learning and greater effort.

Advanced Placement (AP) – A program created by the College Board to offer college-level curriculum and examinations to high school students.

Accelerated Courses (Acc) – These courses require an Advanced Placement course as a prerequisite. Accelerated courses are also weighted the same as Advanced Placement courses.

CURRICULUM

AMSA’s curriculum is extremely rigorous, with a heavy focus on excellence in science, technology, and mathematics. Our classes are taught at a fast pace with significant emphasis on student initiative and independence, similar to college-level classes.

Every AMSA student receives comprehensive training in mathematical thinking and analysis– the foundation skills necessary for success in college/graduate learning as well as STEM and other careers. They learn not what to think, but how to think, using critical thinking and problem solving skills that are future-proof.

For a complete list of high school course offerings, please visit amsacs.org to view our Program of Studies.

Graduation Requirements: 28 Credits		
Math	4 Years	Students must pass the MA Comprehensive Assessment System exams.
English	4 Years	
Science	3 Years	
History	3 Years	
Foreign Language	2 Years	
Computer Science	3 Years (1.5 Credits)	
Art	2 Years (1 Credit)	
Physical Education	3 Years	
Health/Wellness	1 Year	

“The teachers love what they do and are always pushing the boundaries with their innovative curriculum.”

Parents of 9th Grader and 12th Grader

ADVANCED PLACEMENT COURSES

Biology	French	Physics C: Mechanics
Calculus AB/BC	Government & Politics	Psychology
Chemistry	Latin	Spanish
Computer Science A	Macroeconomics	Statistics
English Language	Microeconomics	Studio Art
English Literature	Physics C: Electricity & Magnetism	U.S. History

2024 AP Scholar Awards	
Award	# Students
AP Scholar	47
AP Scholar With Honor	19
AP Scholar With Distinction	33

AMSA students took a total of 436 AP Exams in the 2023-2024 school year. 92% of students scored 3, 4, or 5 on at least one exam. 82% of the class of 2024 took at least one AP course while at AMSA.

AMSA earned a Platinum listing (highest level) on the College Board’s 2024 AP School Honor Roll. AMSA also was recognized with the 2024 AP Access Award, which honors schools that encourage more low-income and underrepresented minority students to take AP Courses.

ACCELERATED COURSES

Discrete Mathematics for Computer Science	Intro to Data Science
Full Stack Development	Linear Algebra / Differential Equations
Intro to Cyber Security & Cryptography	Multivariable/Vector Calculus

Class of 2024 National Merit Scholars

1 National Merit Semi-Finalist
10 Commended Students

MATH LEVELS

	College Prep I	College Prep II	Honors	Advanced/Accelerated
Grade 9	Algebra I <i>and</i> Geometry A	Algebra II <i>and</i> Geometry I (CP)	Algebra II (H) <i>and</i> Geometry I (H)	Algebra II / Trigonometry <i>and</i> Advanced Geometry
Grade 10	Algebra II <i>and</i> Geometry B	Algebra III <i>or</i> Precalculus <i>and</i> Geometry II (CP)	Precalculus (H)	Advanced Precalculus / Beginning Calculus
Grade 11	Algebra III	Precalculus <i>or</i> Intro to Calculus	Calculus (H)	AP Calculus AB / BC
Grade 12	Precalculus <i>or</i> Accounting	Intro to Calculus <i>or</i> Statistics (H) <i>or</i> Accounting	AP Calculus AB / BC <i>or</i> Statistics (H)	Multivariable / Vector Calculus <i>and/or</i> AP Statistics <i>and/or</i> Linear Algebra

SCIENCE RESEARCH OPPORTUNITIES

AMSA’s flagship science research program offers students the opportunity to conduct graduate school level research in the 10th-12th grades. Students conduct independent research in areas such as Astronomy, Biochemistry, Ecology, Engineering, Geochemistry/Hydrology, Molecular Biology, and Scientific Instrumentation. Students in Biochemistry have the opportunity annually to earn microcredentials from the Bioscience Core Skills Institute (<https://bcsi.bio/>), up to three microcredentials by graduation.

A scanning electron microscope donated by Thermo Fisher Scientific is taking the science research program to new heights. This unprecedented gift – one of the only electron microscopes housed at a public high school in the U.S. – gives AMSA students unrivaled learning and research opportunities normally only found in college science labs.

“We create an environment where it’s safe for students to make mistakes. We encourage risk-taking and creativity. Growth comes from struggle, mistakes, and challenges.”

Dr. Scott Joray, Founding Science Dept. Chair

CLASS OF 2024 COLLEGE ACCEPTANCES

Adelphi University	Florida State University	Rensselaer Polytechnic Institute	University of Delaware*
American University	Fordham University	Rivier University	University of Hartford
Anna Maria College	Framingham State University*	Rochester Institute of Technology*	University of Iowa
Arizona State University-Tempe	Gordon College*	Roger Williams University*	University of Louisville
Assumption University*	Hampden-Sydney College	Rollins College	University of Maine*
Bates College	Hampshire College	Rutgers University-New Brunswick	University of Manchester*
Bay Path University*	High Point University	Sacred Heart University*	University of Maryland-Baltimore County
Baylor University*	Hobart and William Smith*	Saint Anselm College	University of Maryland-College Park
Bentley University*	Hofstra University*	Saint Joseph's University	University of Massachusetts-Amherst*
Binghamton University*	Indiana University-Bloomington	Salem State University	University of Massachusetts-Boston*
Boston University	Iona University	Salve Regina University	University of Massachusetts-Dartmouth*
Brandeis University	Ithaca College	Seton Hall University	University of Massachusetts-Lowell*
Bridgewater State University*	James Madison University	Siena College	University of Miami*
Bryant University*	Johnson & Wales University-Providence	Simmons University	University of Minnesota-Twin Cities
Bucknell University	Kean University	Skidmore College	University of Mississippi
Butler University	Lafayette College	Smith College*	University of New Hampshire-Main Campus*
Case Western Reserve University*	Lasell University	Southern Illinois University-Carbondale	University of New Haven
Champlain College	Loyola University Maryland	Southern New Hampshire University	University of North Carolina at Chapel Hill
Clark University	Marist College	Stevens Institute of Technology	University of Pittsburgh-Pittsburgh Campus
Clarkson University	Marquette University	Stonehill College*	University of Rhode Island
College of Charleston	Marywood University	Suffolk University*	University of Rochester
College of the Holy Cross*	Massachusetts Bay Community College*	SUNY Buffalo State	University of Scranton
Colorado School of Mines*	Massachusetts College of Liberal Arts	SUNY College of Environmental Science and Forestry*	University of South Carolina-Columbia*
Colorado State University-Fort Collins	Massachusetts College of Pharmacy and Health Sciences	Syracuse University	University of South Florida-Main Campus
Connecticut College	Massachusetts Maritime Academy	Texas A & M University-College Station*	University of Southampton
CUNY John Jay College of Criminal Justice	McGill University*	The Catholic University of America	University of St Andrews*
Curry College	Merrimack College*	The George Washington University	University of Toronto*
Dartmouth College*	Miami University-Oxford	The University of Alabama	University of Vermont*
Dean College	Michigan State University*	The University of British Columbia	Vermont State University (All Campuses)
Denison University	New England College	The University of Sheffield*	Villanova University
Dickinson College	Nichols College*	The University of Tampa*	Virginia Tech
Drexel University	North Carolina State University at Raleigh	The University of Tennessee-Knoxville*	Washington and Lee University
Duquesne University	North Carolina State University at Raleigh	The University of Texas at Dallas	Wentworth Institute of Technology*
Eckerd College	Northeastern University*	Thomas Jefferson University	Western New England University
Elon University*	Norwich University	Trinity College	Westfield State University*
Embry-Riddle Aeronautical University-Prescott	Nova Southeastern University	Trinity College Dublin	Wheaton College - Massachusetts
Emerson College	Ohio State University - College of Engineering	Union College (NY)	Worcester Polytechnic Institute*
Emmanuel College	Ohio State University-Main Campus*	University at Albany, SUNY	Worcester State University*
Endicott College	Ohio Wesleyan University	University College Dublin*	Xavier University
Erasmus University College	Pennsylvania State University-Penn State Main Campus	University College Groningen	
Fairfield University*	Providence College	University College Roosevelt	
Fisher College*	Purdue University-Main Campus*	University of Arizona	
Fitchburg State University*	Quinnipiac University	University of Cincinnati-Main Campus	
Florida Atlantic University*	Quinsigamond Community College*	University of Colorado Boulder*	
Florida Institute of Technology		University of Connecticut*	
Florida International University			

* Indicates students attending

2024 Student Outcomes 81% attending 4-year institution • 7% attending 2-year institution • 3% working, attending trade school, or joined the military • 5% taking gap or service year • 94% accepted to at least one college or university