



The Academy for Math, Science, and Engineering

Located at Morris Hills High School

Information Session
October 10, 2024

Introductions

Dr. Cheryl Engel

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Morris Hills Regional District

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Program Overview

Dr. Cheryl Engel



History of the Program

- Started in 2000 by Morris County Vocational School District
- 1st MCVSD Satellite Program
- Housed at Morris Hills High School
- County-wide Career & Technical Education Program
- Highly selective –30%
- Ranked #1 best STEM HS in NJ, #1 best public HS in NJ, #3 best STEM HS in the US, and #15 best public HS in the US according to NICHE in 2023
- Recognized as 2nd best high school in the nation by Newsweek in 2016



Academy Basics

- School hours are 7:18 AM – 3:02 PM
- A/B day block schedule
- Blocks 1-8 are 88 minute blocks
- Z-block is 44 minutes and meets every day
- A Day: z-block and blocks 1-4
- B Day: z-block and blocks 5-8
- Transportation provided by home district
- A minimum of 170 credits required for graduation
- Passing grade is ≥ 70
- No class rank



Academy Basics (continued)

- Mandatory two week summer program for incoming freshman
 - July 14th - July 25th from 8:00 AM to 3:00 PM
 - CAD, AP Physics 1, Math Analysis 1, and English/Social Studies
 - Transportation is not provided
 - Students must attend the entire 10-day summer program
 - Planned vacations, doctors/dentists appointments, sports, delayed/canceled/changed flights, etc. will not be excused absences
 - AMSE 9th grade course enrollment will only be confirmed for accepted students who attend the summer program
- 100-hour internship required senior year
- Opportunities for college credit
- 48 highly-motivated students accepted per grade level



Required Academy Coursework

Grade 9

- Academy CAD H*
- AP Physics 1
- Academy Math Analysis 1H
- Academy English 1H
- Academy Social Studies 1H
- Geometry H

Grade 11

- AP Biology
- Academy Engineering & Product Development 2H
- Academy Business Strategies H*

Grade 10

- Academy Fund. of Engineering H*
- AP Chemistry*
- Academy Math Analysis 2H
- Academy Engineering & Product Development 1H
- Academy English 2H*
- Academy Social Studies 2H

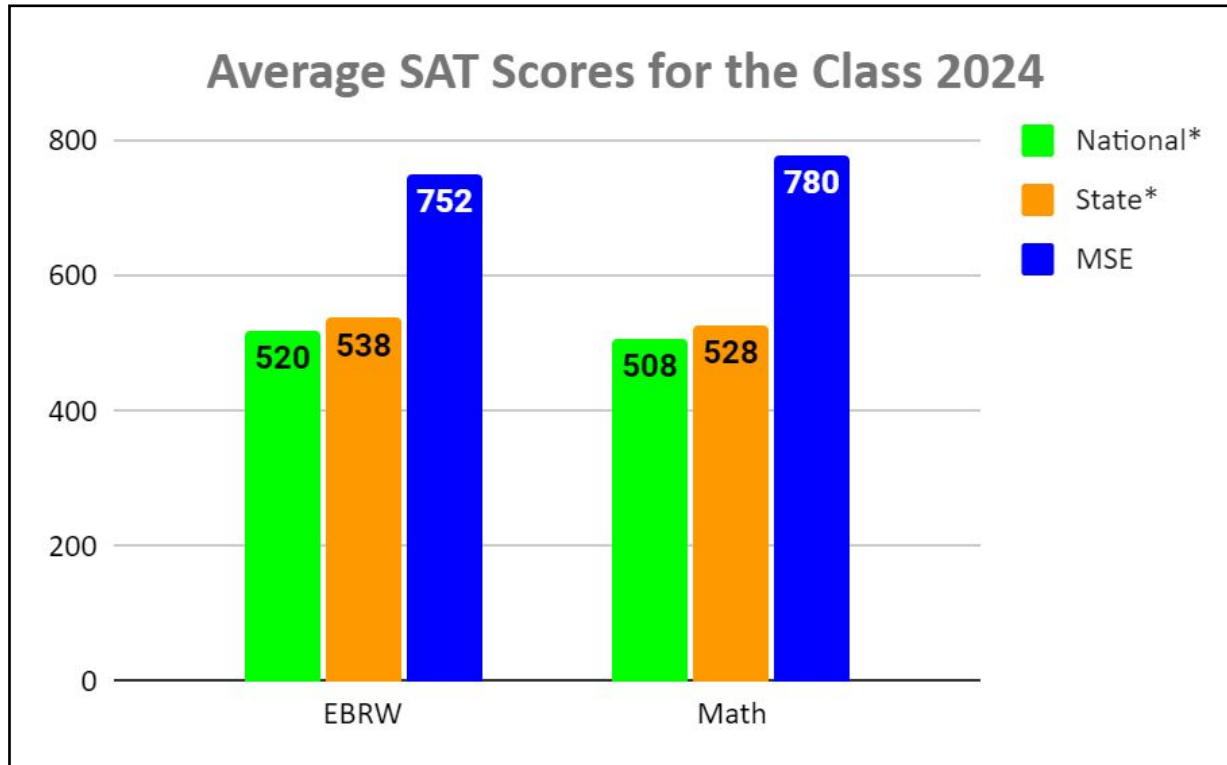
Grade 12

- Academy Biotechnology H
- Academy Engineering & Product Development 3H
- Academy Technical Writing H
- Academy Macroeconomics H*
- Structured Learning Experience

*Students can earn college credit through dual enrollment agreements



Class of 2024 Student Accomplishments



***National & State Averages based on 2023 data**

2024 SAT Averages

MSE: 1532

State: 1066*

National: 1028*

Advanced Placement Data for the Class of 2024

Number of students taking an AP: 46

Total # of AP Tests: 542

% of students scoring 4 or 5: 90%

% of students scoring 3 and above: 97%

Class of 2025 Facts at a Glance

Senior Class Size: 45

Highest GPA: 105.37

Average GPA: 101.84

National Merit Semifinalist: 4



Class of 2024 Internships

BAE Systems	Ipsos MMA	New Jersey Institute of Technology	University of Washington
BD (Becton, Dickinson and Company)	Kozak Precision Products	NJIT Stem for Success	Wells Fargo
County College of Morris	Marotta Controls	Pfizer Inc.	ZAPHYR Technologies
Flowtech	Mechanical Solutions Inc.	PicoImmune	Zoetis Inc.
Freshriver.ai	MiniScience	REDYREF Interactive Kiosks	
Heller Industries	Morris Hills Regional District	Thomas Baio Architect PC	
Integration International, Inc.	Movement Control Rehabilitation	TrnDigital	



Class of 2024: Where are they now?

Binghamton University	Georgetown University	Princeton University	The University of Texas at Austin	University of Wisconsin Madison
Brown University	Indiana University Bloomington	Purdue University	University of California - Berkeley	Vassar College
Carnegie Mellon University	Massachusetts Institute of Technology	Rice University	University of Colorado Boulder	Worcester Polytechnic Institute
Champlain College	New Jersey Institute of Technology	Rutgers University - New Brunswick	University of Illinois at Urbana Champaign	
Champlain College	New York University	Stony Brook University	University of Michigan - Ann Arbor	
Georgetown University	Northeastern University	Texas A & M University - College Station	University of Notre Dame	



Admissions

Mr. Scott Shaw



24-25 MCVSD Academy Application Process

2024-2025 MCVSD
Academy
Application Process

MCVSD Admissions
Department



Recap

- Application is open 9/3/24- 11/18/24
- Information and the Full Time Application can be found on the MCVSD website.
- Applicants and their parents/guardians should read the Admissions Handbook in its entirety for complete procedures, timelines, and processes.
- Applicants will provide the name and contact details of one middle school teacher as a recommender when completing the application. The Recommender will receive a request to submit a recommendation on the applicant's behalf. Recommenders will not be writing personal recommendations but will complete a form.
- Applicants must enter the name and email address of the middle school counselor or person at the middle school who will complete the middle school documents portion of the application, which includes entering 7th grade grades, 7th grade NJSLA scores and attaching a transcript. The school counselor will receive a recommendation link via email, once the student completes their application.
- **All criteria from teachers and school counselors due by 11/25/24**



Important Information

- Acceptance, non-acceptance and waitlist results will be sent to applicants via email.
- Applicants will be notified of results by mid-January.
- Your home district will be notified by the spring.
 - It is a good idea for you to communicate this information to them as well.



Transportation to Morris Hills High School

- Transportation will be provided to all accepted students by their resident school district.
- Once accepted, the address you provide in your application will be provided to your home district's transportation department.
- Busing is provided to and from the academy by your home district.
- Late busing is not provided and is the responsibility of the student/parent/guardian.



NJSIAA Guidelines Regarding Satellite Students

Bylaws, Article V, Section 4.G (2) (Enrollment)

- When a student enrolls in an academy program through a Vo-Tech school (School A) which is housed at another district's high school (School B) which is different from the student's home sending district's high school (School C), he/she is eligible for interscholastic athletics where he or she is carried on the Official Register from School A or School B.
- If a student is carried on both School A and School B's registers, the student may choose the school at which he/she wishes to participate in all sports on a full school-year basis. The student is not eligible for interscholastic sports at his/her home sending district (School C) regardless of what sports are offered at School A and School B.



Guidelines apply to activities at all satellite academy partner school districts.



FAQs

Dr. Cheryl Engel



Who is eligible to apply to the Academy for Math, Science, and Engineering?

Any student who lives in Morris County, is in 8th grade, and will have completed an Algebra I course by the end of grade 8.

Can I apply to more than one Academy?

No.

Do I need to repeat Geometry if I took it in middle school?

Maybe. If you are enrolled in Geometry through your middle school (not taking it on your own independently), then you can take a placement exam and test out of Geometry with a minimum score. Note: Students who take Algebra 2 in middle school cannot test out.

Can I test into a higher level of a World Language?

Maybe. We offer the STAMP exam which is a test that determines an individual's appropriate placement level. You do not need to be enrolled in a World Language class to take the exam. The district offers Spanish, French, and German.

Can I take the admissions exam more than once?

No.



What clubs and activities are available to AMSE students?

Academic Decathlon Team	ERASE	Junior Class	Programming Club	Social Studies Honor Society
African Cultural Club	ESL Honors Society	JSA	Project Lead	Sophomore Class
Art Honor Society	Fall Play	Key Club	National Honor Society	Sound and Lighting
Art Services Club	FBLA	Knights Templar	Novel Perspectives Book Club	Spanish Club
Asian Heritage Club	FCCLA	Leo Club	Parades - Marching Band	Spanish Honor Society
Astronomy/Physics Club	French Club	Library Council	Peer Tutoring	Spoken Word Society
Band Front	French Honor Society	Literary Magazine - Knight Writers	Photography Club	Sports Medicine Club
Business Honor Society	Freshman Class	Madrigals (Scarlet Singers)	Pit Band	String Theory
Chess Club	Games Club	Marching Band - Director	Portable Sound	Technology Honor Society
Choreographer	German Club	Marching Band - Assistant	Robotics	Teen Leadership Council
Chorus	German Honor Society	Math Club	School Newspaper	Tri M Music Honor Society
Concert Band	Girl Up Club	Math Honor Society	Science Honor Society	TSA
Costuming	HOPE Club	Media Services	Science Olympiad	TV Production Club
DECA	Interact Club	Medical Club	Senior Class	Wind Ensemble
Drum Line	International Thespian Society	MH PRIDE	Set Designer	Winter Guard
E-Sports Team	Indian Cultural Club	Mock Trial	SGA	Women's Chorale (Knightingales)
Economics Club	International Relations Club	Musical	Ski Club	Yearbook - The TORCH
English Honor Society	Jazz Band	Musical Vocal Director	Skills USA	Youth Alive/Bible Club
Environmental Action Club				



What sports are available?

FALL*

Cheerleading
Cross Country (boys)
Cross Country (girls)
Field Hockey
Football
Soccer (boys)
Soccer (girls)
Tennis (girls)
Volleyball (girls)

WINTER

Basketball (boys)
Basketball (girls)
Bowling
Cheerleading
Fencing (boys)
Fencing (girls)
Ice Hockey
Swimming (boys)
Swimming (girls)
Track (boys)
Track (girls)
Wrestling (boys)
Wrestling (girls)

SPRING

Baseball
Golf
Lacrosse (boys)
Lacrosse (girls)
Softball
Tennis (boys)
Track (boys)
Track (girls)

*Fall season begins in August

Note: Some sports have a limited number of spots on their rosters and, as a result, may implement tryouts/cuts.



What type of student are you looking for?

We want students with a demonstrated passion for math, science, and engineering with good communication skills. The focus of the program is engineering.

Can students make an appointment to tour/visit the AMSE program during the school day?

Accepted students may have an opportunity to visit AMSE for a portion of the school day.

How will I hear from MCST?

All communication occurs via email. Therefore, it is imperative that you use an email address on your application that you check regularly. Also, be sure to check the [Applicant Status Page](#).

What is the difference between AMSE and the Math/Science Magnet?

- *AMSE focuses on engineering, Magnet completes the AP Capstone (scientific research)*
- *AMSE has an extended school day (z-block)*
- *AMSE is an approved CTE program and requires students to complete a 100-hour internship senior year*
- *AMSE freshman take AP Physics 1, Magnet students take Biology H*
- *AMSE is for Morris county students only offered through the MCVSD, Magnet is a school-choice program offered by the MHRD*



Senior Introductions

- Name
- Hometown
- SLE
- Extra-curricular activities
- Intended college major



Want more information?

<https://www.mhrd.org/Page/869>



**Profile and Brochures
2024-2025**





Thank You
For Joining Us