

THE RALPH VELLON ACADEMY OF ENGINEERING & MEDICAL SCIENCES PROGRAM INFORMATION

Dr. Richard Tomko, Superintendent of Schools
Mr. Caleb Rhodes., Principal of Belleville High School

(973) 969-4343 ext. 1610

Application Process

9th grade students entering Belleville High School for the 2018-2019 school year, who meet the following criteria, may obtain an application packet at Belleville Middle School/Belleville High School or the district's website: www.bellevilleschools.org

- Maintained at least an "85" average in their math and science courses
- Scored 760 or above on the Math portion of the 2017 PARCC Test.
- Scored 780 or above on the Language Arts Literacy portion of the 2017 PARCC Test.

Completed packets must be forwarded to the Office of Principal of Belleville High School Mr. Caleb Rhodes by **June 8, 2018**. Applicants will be expected to submit a writing sample as part of the application process.

A selection committee will review the applications of all qualified applicants and select the top candidates for admission into the program.

During the course of a student's tenure at The Ralph Vellon Academy of Engineering and Medical Sciences, he/she will be able to experience a rich environment of accelerated instruction including:

- Extensive laboratory experiences using CBLs and other computer---based software and hardware
- English curricula integrating a multitude of nonfiction and technical writing units
- Emphasis on critical thinking skills in all academy courses
- Exposure to science, medical, and technology facilities through specialized field trips
- Exposure to a variety of technology applications
- Participation in lecture series
- Career counseling by guidance counselors and academy staff to facilitate a student's preparation and acceptance into colleges and universities and for scholarships

Program Requirements

Each Academy student will:

- Take at least one Honors/AP math and one Honors/AP science course each year,
- Complete a minimum of 4 units of high school science at the Honors or AP level
- Attend yearly lecture series programs

- Complete a senior research or internship project
- Take a minimum of seven (7) classes each semester
- Maintain a cumulative **3.5 GPA**
- Meet New Jersey State Assessment graduation requirements prior to their senior year

Program Description

In response to meeting the diverse interests and needs of high school students, Belleville Public Schools developed a rigorous and unique program of study emphasizing the core areas of mathematics and medical sciences with an infusion of technology.

The Ralph Vellon Academy of Engineering and Medical Sciences offers a challenging course progression designed to nurture the inquisitive minds of our students. With that being the case, there is little room for deviation from the schedule listed below for students accepted into the academy:

9th	10th	11th	12th
Geometry H	Alg 2 H	Pre-Calculus H	AP Calculus
ELA 1 H	ELA 2 H	AP Comprehension	AP Literature
Bio H	Chemistry H	AP Physics/Chemistry	AP Bio/Env. Sci.
World History H	US 1 H	US 2 H/AP	AP Government
Foreign Language	Foreign Language	Financial Lit/Comp. Sci.	Fine/Performing Arts
PE/Health	PE/Health	PE/Health	PE/Health
Academy 1	Academy 2	Academy 3	Academy 4
35 Credits	35 Credits	35 Credits	35 Credits

Along with this course structure, students will also have an opportunity to work through one of two potential tracks within the Academy after taking two half year intro courses as Freshmen. One track is the Medical Sciences Track, and the other is the Engineering Track.

Medical Sciences Track (subject to change):

- 9th – Intro to Medical Arts (Half year)
- 10th – Medical Office Practice/Medical Arts 1
- 11th – Medical Arts 2 (Nurse Assisting/CPR/First Aid)
- 12th – Medical Arts 3 (EMT/Certified Nurse Assisting)

Engineering Track (subject to change):

- 9th – Intro to Engineering Design (Half year)
- 10th – Coding
- 11th – Principles of Engineering
- 12th – Robotics

Program Components

This advanced academic program was designed for academically motivated and dedicated students who have a strong interest in mathematics and the medical sciences. With this in mind, educators created a challenging experience mirroring comparable competitive mathematics and science academy programs in New Jersey.

Senior Project

As a capstone experience of each Academy student's program of study, the internship/research project truly sets our students apart.

The focus of the project is in the field of medicine or medical technologies and integrates the foundational topics studied in the preceding years.

Students elect to complete a field---based research project or internship. Successful completion of this portion of the program includes independent work, a multimedia presentation of the experience, a written summative thesis, and an oral presentation.