



DIANA C. LOBOSCO STEM ACADEMY

2022-2023 HIGH SCHOOL PROFILE



The School

The Diana C. Lobosco STEM Academy is part of Passaic County Technical Vocational Schools (PCTVS), a national award winning, comprehensive career and technical high school district serving over 4200 students. The DCL STEM Academy recently held its historic first graduation of the Class of 2022. Located on a 55+ acre campus in Wayne, NJ, the DCL STEM Academy accepts students from all municipalities throughout Passaic County. Over 80 faculty members deliver the curriculum of 50+ courses and three focused integrated STEM career areas; **Biomedical and Life Sciences, Computer Science, and Engineering.**

A student can:

- Eventually earn 30+ college credits in high school
- Gain experience in multiple STEM careers
- Join one of DCL STEM's 3 popular programs of study
- Take part in dozens of community service projects
- Enjoy PCTVS's exciting athletic program. Through more than two dozen sports, young adults learn the true value of sportsmanship and teamwork
- Compete in academic and vocational forums for state and national honors
- Benefit through the PCTVS "It Starts with One," "Like No Place Else," "Can't Stop the Feeling," "We Are", "PCT & I", "Imagine", "Ready. Set. Go!" and "Bulldogs Level UP!" campaigns

MISSION STATEMENT

"We are a diverse, progressive learning community that promotes educational excellence by challenging our students to become knowledgeable, productive and socially conscious members of a global society through quality educational programs delivered by a highly skilled and dedicated staff in a nurturing environment."

Awards and Achievements

The following highlights a number of recent DCL STEM honors:

- DCL STEM Academy was approved to be an APCapstone institution. Students can complete an AP Seminar, AP Research plus four additional AP classes to receive this designation. We are one of 2000 schools nationwide to receive this status.
- Many students participated and passed their first virtual college class via Passaic Community College. Students took this class in addition to the demanding 9 core classes that they are currently taking.
- STEM students received State and National honors such as were Questbridge scholarships, Horatio Algers scholarships, and Merit scholar semifinalists.
- STEM students serve as teaching assistants in our Fall, Spring and Summer STEM Program for 5th-8th graders interested in STEM. They taught students how to collaborate and to learn through trial. They assisted to teach them the engineering design process, how to code, and about the Scientific Method.
- STEM students helped to organize and design a STEM Expo that follows International Science & Engineering Fair (ISF) guidelines.
- DCL STEM Junior won 1st Place in the Microsoft DigiGirls Competition. She designed an AI app to prevent coronary artery disease. <https://www.youtube.com/watch?v=tLq9RiNeEh4>
- Student selected to attend the National Youth Leadership Forum: Medicine in Boston
- Two Biomedical Students represented PCTVS in the HOSA NJ Regionals

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Graduation Requirements

In order to qualify for a STEM diploma, a student must earn a total of 167.5 credits which include the following:

| | | |
|---------------------------------------|-----|---------|
| Language Arts | 20 | credits |
| Math (Algebra 1, Geometry, Algebra 2) | 15 | credits |
| Social Studies | 15 | credits |
| Physical Education | 15 | credits |
| Health Education | 5 | credits |
| World Language | 5 | credits |
| Science | 15 | credits |
| Electives | 15 | credits |
| Financial Literacy | 2.5 | credits |
| Visual and Performing Arts | 5 | credits |
| CTE Program/Career Exploration | 55 | credits |

*Each student is required to complete four years of Technical/Vocational training, of which 17.5 credits must be successfully earned in grade 12. All students must participate in a senior research capstone project.

Career and Technical Education Programs

Students can apply to:

Academy of Biomedical and Life Sciences
Academy of Computer Science
Academy of Engineering

Awards and Achievements

- Students from the Diana C. Lobosco STEM Academy competed in a Shark Tank style competition as part of the Life Science Diversity Conference. STEM students had two weeks to prepare a project. The result was “No-Plas,” a biological way of speeding up the decomposition of plastic bottles in landfills via the enzyme ideonella sakaiensis, an entry that earned the DCL STEM students third place at the competition!
- The DCL STEM team created two versions of their product – a mist that’s applied to garbage bags and a pad that’s disposed of with garbage. Both concepts utilize bacterium to break down polyethylene.
- An athletic powerhouse, PCTVS has won eighteen state championships and achieved many other legendary accomplishments, which include our Football State Championship, Wrestling State Championship, Winter Cheerleading Co-ed Varsity State Championship and many other County and Big North Conference Liberty Division Championships!
- DCL STEM students have contributed to the success of our winning teams in Football, Soccer, Volleyball and Wrestling.

Post High School Plans

| | |
|-----------------|-----|
| 4yr/2yr College | 88% |
| Employment | 11% |
| Military | 1% |

Grading System

| Grade | Numeric | GPA |
|-------|---------|-----|
| A+ | 98-100 | 4.2 |
| A | 92-97 | 4.0 |
| A- | 90-91 | 3.8 |
| B+ | 88-89 | 3.5 |
| B | 82-87 | 3.0 |
| B- | 80-81 | 2.8 |
| C+ | 78-79 | 2.5 |
| C | 72-77 | 2.0 |
| C- | 70-71 | 1.8 |
| D+ | 68-69 | 1.5 |
| D | 65-67 | 1.0 |
| F | 0-64 | 0.0 |

Code

I = Incomplete
M = Medical Excuse
NC = No Credit
E = Excellent
S = Satisfactory
N = Needs Improvement
U = Unsatisfactory

Principal’s Honor Roll

A or B in all courses & minimum of 3.8 GPA

Honor Roll

A or B in all courses

School Counseling Department

The DCL STEM Academy School Counseling Department has four full-time, on-site school counselors which are assigned to students in each of the vocational areas. The department also has one dedicated student assistant coordinator who offers social/emotional support for students in crisis.

| | |
|-------------------------|-------------------------------|
| Laura Bania | Counselor |
| Lauretta Cregar | Counselor |
| David Inigo | Counselor |
| Daniel Piekarz | Counselor |
| Jennifer Presing | Student Assistant Coordinator |

Extracurricular Programs

There are over 50 athletic and co-curricular programs offered to students as part of PCTVS. The high school participates in the Big North Conference and has won state, county, and league championships in numerous sports from football to basketball, volleyball to track and wrestling.

- Among the 4200 students on campus, most participate in one or more of 42 student organizations including: Marching, Concert and Jazz Bands, LEAP (Leaders Emerging Among Peers), Gifted/Talented, as well as service clubs in Business, Finance, and Health.
- Student organizations strengthen the qualities of community & civic responsibility, enhance special interests and inspire school unity and spirit! National, state and local recognition for extraordinary patriotic and extensive community service.
- Many of our Biomedical and Life Sciences students are involved in HOSA (Health Occupations Student Organization). HOSA develops leadership and technical skill competencies through a program of motivation, awareness, community service, which is an integral part of the Biomedical and Life Sciences program.
- Our Computer Science and Engineering students are involved in STEM based student organizations such as; Engineering Club, Robotics Club, Society of Hispanic Professional Engineers (SHPE), Society of Black Engineers (SBE). These organizations promote leadership and camaraderie. Students are involved in collaborative experiences/challenges as well as gaining the opportunity to further their career awareness via guestspeakers and lectures.



Post-Secondary Placement

Graduates of STEM traditionally attend four year or two-year colleges and universities, a wide variety of technical and career schools or enlist in the United States Armed Forces.

- Alvernia University*
 - American University*
 - Arizona State University-Tempe*
 - Bergen Community College*
 - Boston College*
 - Brigham Young University-Idaho*
 - Caldwell University*
 - Clemson University*
 - County College of Morris*
 - Delaware Valley University*
 - Drew University*
 - Embry-Riddle Aeronautical University*
 - Essex County College*
 - Fairleigh Dickinson University*
 - Felician University*
 - Florida Institute of Technology*
 - Florida Southern College*
 - High Point University*
 - Idaho State University*
 - James Madison University*
 - Kean University*
 - King's College*
 - Marquette University*
 - Midlands Technical College*
 - Monmouth University*
 - Montclair State University*
 - New Jersey City University*
 - New Jersey Institute of Technology*
 - New York University*
 - North Carolina State University at Raleigh*
 - Nova Southeastern University*
 - Passaic County Community College*
 - Pennsylvania State University**
 - Princeton University**
 - Quinnipiac University*
 - Ramapo College of New Jersey*
 - Rensselaer Polytechnic Institute*
 - Rochester Institute of Technology*
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ACADEMY

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|---|---|
| <i>Rowan University</i> | <i>University of Connecticut</i> |
| <i>Rutgers University</i> | <i>University of Kentucky</i> |
| <i>Savannah College of Art & Design</i> | <i>University of Maryland</i> |
| <i>Seton Hall University</i> | <i>University of New Hampshire</i> |
| <i>St. John's University</i> | <i>University of New Haven</i> |
| <i>Stevens Institute of Technology</i> | <i>University of Pittsburgh</i> |
| <i>Stockton University</i> | <i>University of the Sciences</i> |
| <i>Syracuse University</i> | <i>Valparaiso University</i> |
| <i>The College of New Jersey</i> | <i>Vaughn College of Aeronautics and Technology</i> |
| <i>The University of Alabama</i> | <i>West Chester University of Pennsylvania</i> |
| <i>The University of Texas at Arlington</i> | <i>Western Michigan University</i> |
| <i>Trinity College</i> | <i>William Paterson University of New Jersey</i> |
| <i>University of British Columbia</i> | Yale University |
| <i>University of California</i> | |



PCTVS Board of Education

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Aleksandra Tasic, Commissioner
Keshia Drakeford, Commissioner/Interim
Executive County Superintendent of Schools
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DCL STEM Academy Administration

| | |
|--|---|
| John Maiello Chief School Administrator | Richard Giglio Business Administrator |
| Joseph Sabbath Assistant Superintendent | Joaquim Johnson Principal |
| Ted Szczawinski Assistant Superintendent | Nick Bucci Director of Pupil/ Personnel Services |

