# **Biotechnology High School** Class of 2018 Profile

Biotechnology High School

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#### **Mission Statement**

Biotechnology High School, an International Baccalaureate World School, integrates life science, technology, and engineering into a rigorous curriculum that inspires students toward open-minded participation in the global community and prepares them for higher education and leadership in an increasingly demanding workplace through scholarly research, original investigations, and interactive partnerships.



#### **School & Community**

The Monmouth County Vocational School District (MCVSD) prepares students for an evolving workplace, lifelong learning, and further education. Biotechnology High School (BTHS), an International Baccalaureate (IB) World School, is one of MCVSD's five Career Academies. BTHS students are selected through a highly competitive application and admissions process. The school population represents a cross section of students from more than thirty resident districts throughout Monmouth County. BTHS provides students with an exceptional educational experience through a college preparatory curriculum emphasizing research, laboratory skills, critical thinking, problem solving, technology, leadership, and teamwork. BTHS is the only high school in New Jersey in which 100% of students are IB Diploma Candidates. Universities worldwide recognize IB as a rigorous high school program that provides excellent preparation for post-secondary success.

BTHS is a close-knit and supportive learning community of approximately 320 high-achieving students and 27 dynamic faculty members. The facilities and equipment at BTHS are state of the art, including two full biotechnology labs, a tissue culture lab and several 3D printers.

#### Curriculum

BTHS operates on an alternating day four period block schedule in which classes meet for 82 minutes two or three times per week. Courses are either full-year (5 credits) or semester-long (2.5 credits). All core and themed courses, not otherwise designated as AP or IB, are taught at an honors level. Beginning in grade 11, all students become IB Diploma Candidates. As IB Diploma Candidates, students are required to take seven IB courses, write a 4,000 word senior thesis, and complete 150 Creativity, Action, and Service (CAS) hours. To earn the IB diploma, students need to achieve superior scores on externally assessed exams, projects, and essays.

BTHS students complete 160 credit hours of instruction, including a minimum of 45 credit hours in laboratory sciences and mandatory coursework in leadership and ethics. Additionally, each student completes a science-based senior internship. Partner sites include Freehold EMS, Monmouth Medical Center, NJ Sharing Network, Robert Wood Johnson University Hospital and Rutgers University.

#### **Course Sequence**

Grade 9	Grade 10	Grade 11	Grade 12
Biology/Genetics Chemistry Digital Literacy English I Health/Fitness I Geometry or Algebra II/Trig Intro to Experimental Design Spanish I or II World Cultures	Algebra II/Trig or IB Math SL I Biotech Lab Skills Explorations in Economics English II Health/Fitness II Physics Molecular/Agricultural Biotechnology Spanish II or III US History I	Creativity, Action, Service (CAS) 75 hours IB Biology HL I IB Language and Literature HL I IB History SL/TOK IB Math SL I or IB Math SL II IB Physics HL I or IB Chemistry HL I Leadership, Exercise & Personal Growth (LEAP) I Spanish III or IB Spanish SL Electives	CAS (75 hours)  Extended Essay (EE) Senior Thesis  IB Biology HL II  IB Language and Literature HL II  IB Math SL II or AP Calculus AB/BC  IB Physics HL I or IB Chemistry HL I  IB Spanish SL  LEAP II  Senior Internship  Theory of Knowledge (TOK)  Electives

#### **Grading System & GPA**

In accordance with MCVSD Board of Education policy, students are not ranked. The grade point average, computed at the end of each year, is unweighted and includes all courses. GPAs are based on a 100-point scale.

Non-Discrimination Clause: The Monmouth County Vocational School District does not discriminate on the basis of race, creed, color, national origin, ancestry, nationality, marital or domestic partnership or civil union status, sex, pregnancy, gender identity or expression, affectional or sexual orientation, reprisal or retaliation for prior civil rights activity, religion, age, disability, or socioeconomic status.

# "Excellence is in our DNA"

- Recognized by the US Department of Education as a National Blue Ribbon School in 2014
- Consistently ranked as a top 20 US high school by numerous publications (Business Insider, Newsweek, Niche, and The Daily Beast)
- 100% of faculty members are highly qualified; 19% hold a doctoral degree
- IB Biology HL Exam: 52% of BTHS students scored a 6 or 7 (compared to 21% worldwide)



Class of 2017 Highlights (82 students)	2016-17 Achievements	
<ul> <li>94% earned an IB Diploma</li> <li>83% pursuing a STEM-related major</li> <li>473 college acceptances</li> <li>11 National Merit Finalists, 34 Commended</li> <li>3 US Presidential Scholar Semifinalists</li> <li>29 Rutgers Presidential Scholars</li> <li>\$23,010,022 institutional merit aid offered</li> </ul>	<ul> <li>Delaware Valley Science Fair (8 winners)</li> <li>FFA National Convention (11 medalists, 2 first place)</li> <li>Governor's STEM Scholars (5)</li> <li>Jersey Shore Science Fair (25 winners, 6 first place)</li> <li>National TSA Conference (1 winner, 4 qualifying teams)</li> <li>New Jersey Academy of Science (1 winner)</li> <li>NJ Junior Science &amp; Humanities Symposium (4 finalists)</li> </ul>	

### Summary of Test Results - Class of 2017

SAT/ACT Mean Score Comparison				
Test	BTHS	US	NJ	
SAT	1474	1070	1076	
ACT	32.4	21.0	23.9	

SAT Reasoning Score Summary				
Section	Mean	Mid 50%		
Reading	731	680 - 760		
Math	745	710 - 780		
Total	1474	1390 - 1540		

IB Assessment Mean Scores				
Subject	втнѕ	Worldwide		
Biology	5.57	4.32		
Chemistry	4.08	4.48		
English	5.46	4.95		
History	5.79	4.60		
Math	5.78	4.37		
Physics	4.63	4.65		
Spanish	5.94	5.08		

## College Matriculation - Class of 2017

Bard College
Bentley University
Boston University
Brandeis University
Cornell University
Dartmouth College
Drexel University
Duke University
Emory University
Fordham University
George Washington University
Georgia Institute of Technology

Haverford College
Johns Hopkins University
Lafayette College
Lehigh University
New Jersey Institute of Technology
New York Institute of Technology
New York University
Northeastern University
Northwestern University
Pennsylvania State University
Princeton University
Reed College

Rutgers University - New Brunswick
Stevens Institute of Technology
The College of New Jersey
The Cooper Union
The Ohio State University
The University of Oklahoma
University of California, Berkeley
University of Maryland, College Park
University of Michigan
UNC Chapel Hill

University of Notre Dame

University of Pennsylvania

University of Pittsburgh
University of Rhode Island
University of Rochester
University of Southern California
University of Virginia
Vanderbilt University
Villanova University
Wesleyan University
Williams College
Yale University
Youngstown State University