

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

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	BTHS	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
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