Biotechnology High School Class of 2019 Profile

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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 28 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 Creativity, Action, and Service (CAS) requirements. 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 Intro to Computer Science English I Health-Fitness I Geometry or Algebra II-Trig Intro to Research 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 IB Biology HL I IB Language and Literature HL I IB History SL Precalculus-Stats or IB Math SL IB Physics HL I or IB Chemistry HL I Spanish III or IB Spanish SL Theory of Knowledge I Electives	Creativity, Action, Service Extended Essay (Senior Thesis) IB Biology HL II IB Language and Literature HL II IB Math SL or AP Calculus AB/BC IB Physics HL II or IB Chemistry HL II IB Spanish SL Leadership, Exercise & Personal Growth (LEAP) Senior Internship Theory of Knowledge II 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
- ★ Ranked as #4 in US News & World Report's "Best High Schools in New Jersey 2018"
- ★ Ranked as #3 in NJ.com's "New Jersey High Schools with the Best SAT Score 2018"
- ★ 100% of faculty members are highly qualified; 16% hold a doctoral degree



Class of 2018 Highlights	2017-18 Achievements	
 ★ 80 students in the graduating class ★ 100% attending a four-year college or university ★ 96% earned an IB Diploma ★ 96% pursuing a STEM-related major ★ 459 college acceptances ★ 9 National Merit Finalists, 37 Commended ★ 23 Rutgers Presidential Scholars ★ \$18,730,736 institutional merit aid offered 	 ★ Delaware Valley Science Fair (13 winners, 2 first place) ★ FFA National Convention (1st in Agriscience Fair) ★ Governor's STEM Scholars (4) ★ Intel Science and Engineering Fair (1 finalist) ★ Jersey Shore Science Fair (26 winners, 7 first place) ★ National TSA Conference (2nd in Scientific Visualization) ★ New Jersey Academy of Sciences (1 winner) ★ NJ Junior Science & Humanities Symposium (2 finalists) 	

Test Score Summary

IB Subject	BTHS Mean	Worldwide Mean
Biology	5.61	4.34
Chemistry	3.98	4.45
English	5.54	4.99
History	5.50	4.54
Math	5.10	4.26
Physics	4.46	4.64
Spanish	5.90	5.07

SAT Mean Score: 1505			
SAT Middle 50%			
Reading/Writing	700 - 760		
Mathematics	720 - 790		
Total	1420 - 1550		

ACT Mean Score: 32.4		
ACT Middle 50%		
Composite	30 - 35	

College Matriculation - Class of 2018

Barnard College
Boston College
Boston University
Bucknell University
Carnegie Mellon University
Case Western Reserve University
Colgate University
Columbia University
Cornell University
Culver-Stockton College
Dartmouth College

Duke University
Fordham University
Georgetown University
George Washington University
Hofstra University
IE University - Segovia
Johns Hopkins University
McGill University
MIT
Mississippi State University
Muhlenberg College

NJ Institute of Technology
Nova Southeastern University
Pennsylvania State University
Princeton University
Purdue University
Rice University
Rollins College
Rowan University
Rutgers University
St. Bonaventure University
Stevens Institute of Technology

University of Notre Dame
University of Pennsylvania
University of Pittsburgh
University of Rhode Island
Vanderbilt University
Virginia Tech
Wagner College
Washington Univ. in St. Louis

UNC Chapel Hill

University of Chicago