



# BIOSCIENCE HIGH SCHOOL

512 E. Pierce St., Phoenix, Arizona 85004 • www.BioscienceHS.org • (602) 764-5600 • CEEB 030645

Bioscience High School opened its doors in 2006. Years of planning, research and focused dialogue, and revision with community members, post-secondary institutions and leaders from business and industry evolved into the following mission (mission + vision) statement:

***BHS provides a rigorous, collaborative, and relevant academic program emphasizing an innovative, problem-based curriculum that develops literacy in the sciences, mathematics, and the arts, thus cultivating critical thinkers, creative problem-solvers, and compassionate citizens, who are able to thrive in our increasingly complex and technological communities.***

The foundation of Bioscience High School was cast in its history and its mission statement. Bioscience High School educators believe that students learn best in diverse communities, where the exploration of complex challenges provides an opportunity for students to experience substantive learning and intellectual growth. Through inquiry and constructivist practices, students are empowered to demonstrate their learning and to continuously refine their understanding of the world through reflection, application and discourse. Supporting the core beliefs of the school are four design principles, developed and articulated during the planning of the school. Those design principles are: Multiple Perspectives, Scholarly Endeavors, Authentic Experiences, and Personalization.

## Fast Facts 2018-2019

Grades	9-12
Student Enrollment	379
Teaching Faculty	23
Support Staff	12
Student-Faculty Ratio	1:16.5
Average Class Size	1:23
Attendance Rate	95.5
Four-Year Graduation Rate (2017)	100%
Students on Free & Reduced Lunch	63.6
Arizona Letter Grade	A

## Key Contacts

### Administration

Dr. Holly Batsell, Principal [batsell@phoenixunion.org](mailto:batsell@phoenixunion.org)

Counseling Staff: 602-764-5600 or 602-764-5603

Ms. Teresa Haggerty, M.Ed. - [haggerty@phoenixunion.org](mailto:haggerty@phoenixunion.org)

Academic Counselor

Ms. Heather Earle - [earle@phoenixunion.org](mailto:earle@phoenixunion.org)

College Visitation Coordinator/Sr. Office Assistant

## Curriculum

Students must complete biweekly, evidence-based narrative evaluations and conferences to earn letter grades. All courses are taught on a two-semester system and feature integrated, blocked coursework, digital lessons and assignments, flipped classrooms, Socratic seminars, and problem-based learning.

## Ethnic Breakdown

Hispanic	74.0%
Anglo	14.2%
Black	4.7%
Native American	0.3%
Asian	4.5%
Two or more	2.1

## Grading System

Honors marks are weighted 5 points for grade-point averages (GPA); highest weighted GPA possible is 4.88. Bioscience does not assign class rank. Grading is numerical; letter grade equivalents and grade points are as follows:

A = 100-90 (Exceed Expectations) = 4.0 grade points
B = 89-80 (Meet Expectations) = 3.0 grade points
C = 79-72 (Approach Expectations) = 2.0 grade points
D = 71-70 (Far Below Expectations) = 1.0 grade points
F = Below 70 (Failing) = 0.0 grade points

## Current Grades – Class of 2019

Un-Weighted				
GPA	<2.49	2.5-2.99	3.0-3.49	3.5-4.0
Number of Students	6	19	29	24

Weighted				
GPA	<2.99	3.0-3.49	3.5-3.99	>4.0
Number of Students	3	7	23	45

## District/School Graduation Requirements

	2011-2012	2013 & on	Bioscience
English	4	4	4
Fine Art or CTE	1	1	1
Mathematics	3	4	4
Biology	1	1	1
Science Lab*	1	2	6**
Social Science	3	3	3
Health	.5	.5	1
Spanish			3
Electives**	6.5	6.5	6.5**
TOTAL	20 Credits	22 Credits	28 Credits

\* Juniors choosing the engineering pathway are considered to be in a PUHSD Career/Technical Education science course.

\*\*Many of the science courses required by BHS exceed PUHSD & state requirements and are counted as electives.

## Bioscience's Unique Curricular Pathways

All Bioscience students now complete 6 year-long science\* courses by graduation, starting with Honors level physics, biology, and chemistry in their first two years. Bioscience juniors choose between two science pathways: engineering (\*which is a CTE science course) or bio-medical. Each 11th-grade science pathway is taught as a block. All seniors must complete a 200-hour capstone internship/externship in an area of interest related to their future major or career. At each grade level, students complete year-long, collaborative, 7-step Sustainable Transformation Framework Projects in which they identify a problem in the existing local or global community, actively research and talk with stakeholders, and propose and/or implement viable solutions. It should be noted that all Bioscience classes are rigorous, integrated, project-based, collaborative and hands-on. We offer AP Government on the senior level, and a small number of juniors every year opt to take the AP Physics exam (without the course). Last year, 27 juniors took the Spanish 7-8 AP course and the exam; all but one passed, with an average score of 4. For the past three years, Bioscience students have led the Phoenix Union High School District with the top scores (5) on the AP Physics exam.

## Honors/AP (29 separate year-long courses)

**Freshman** honors courses are: English 1-2, Integrated Math 1-2, Methods of Scientific Inquiry 1-2 (formerly Physics 1-2,) and Spanish 1-2 or Spanish for Spanish Speakers 1-2. Due to the level of rigor, many students would challenge that the two other freshman courses: Art 1-2 and Health & Fitness 1-2, should also be worth honors credit though the PUHSD course catalog does not reflect this.

**Sophomore** honors courses are: English 3-4, Integrated Math 3-4, World History/Geography 1-2, Biology 1-2, Chemistry 1-2, and Spanish 3-4 or Spanish for Spanish Speakers 3-4. All 10<sup>th</sup>-grade courses are taken at honors level.

**Junior** honors or AP weighted classes are: English 5-6 Honors or AP Level, Integrated Math 5-6, U.S. History 1-2, Spanish 5-6 or AP Spanish, and either: Anatomy & Physiology 1-2 (dual credit course with Phoenix College)/Introduction to Epidemiology 1-2 **or** Introduction to Engineering Design 1-2/Physics of Engineering 1-2. All 11<sup>th</sup>-grade courses are taken at honors/AP level.

**Senior** honors or AP weighted classes are: English 7-8 (ASU Pro-Mod or GCU 1-5), Integrated Math 7-8, U.S. Government 1 AP/Economics 1, College & Career Readiness, Bioscience Internship Research Experience 1-2, and either: Physics of Engineering 3-4, Chemistry 3-4, or Advanced Biology 3-4.

## Dual Enrollment/Concurrent Enrollment

Students may simultaneously earn high school, community college, and university credit in approved Bioscience dual enrollment courses. These courses are taught by college certified PUHSD/BHS teachers. Additionally, some students concurrently enroll in Maricopa Community Colleges and earn college credit through the Achieving A College Education (ACE) Program on weekends/summers. Also seniors may earn English 105 credit from Grand Canyon University if they are not enrolled in Pro-Mod.

## ASU ProMod Courses (Started in 2016)

ASU ProMod is a federally funded First In the World grant program established to serve PUHSD seniors who are low-income, under-represented, and/or potential first generation college students. The goal of the program is to help students prepare for college level courses and give them a head-start on higher education. Accredited Bioscience faculty teach the dual enrollment courses in a project-based format and students earn Arizona State University credits (in English 101-102, and Chemistry 113) upon completion of program criteria and following immediate matriculation to ASU after high school graduation, at no cost to the student.

## Standardized Testing

While we pride ourselves on our 21st century approach to learning and instruction, standardized testing in the form of PSAT, ACT, and SAT is neither our focus nor our forte. As a faculty, we do not use curricular time for test prep, which directly impacts pacing and test completion strategies. With that said, Bioscience leads all PUHSD schools in state-required AZ Merit scores, based on Common Core initiatives. A portion of Class of 2018 seniors participated in a 4-Saturday test prep opportunity in January, 2017 and as a result, 13 of our 57-member class earned ACT composite scores in the 30's with a high of 35. February 2018 results are similar, again with a high of 35. We have made efforts to improve, but it is not our strength.

## Awards and Recognitions

**2018** – 1 Gates Scholar, 2 Flinn Scholars, 3 QuestBridge Scholars (Stanford, Brown, Notre Dame), 1 Dorrance Scholar, 1 Doran Scholar  
**2017** - #1 Ranking – Governor's List of "Top AZ High Schools for Preparing Low Income Students for Higher Education, 2 QuestBridge Scholars, US News national recognition – Bronze ranking; Niche – "A" Arizona rating; Great Schools 10/10 rating  
**2016**- 1 Flinn Scholar, 2 QuestBridge Scholars, 1 AXA Achievement Scholarship Nat'l Scholar, 5 QuestBridge College Prep Scholars, 2 Gates Millennium Finalists, Robotics Chairman's Award recipient; US News National recognition – Bronze ranking; Niche – 7<sup>th</sup> Best High School in Arizona ranking  
**2015** - 2 QuestBridge Scholars, 1 National Merit Scholar, 4 Hispanic Recognition Scholars; Chairman's Award recipient – Robotics/Nat'l qualifier; Niche 4<sup>th</sup> Best High School in Arizona ranking  
**2014** - 1 PSAT/NMSQT Merit Semi-Finalist; 1 Hispanic Recognition Scholar  
**2014** - 1 Gates Millennium Scholar, 3 QuestBridge Scholars  
**2013** - Top 30 Most Architecturally Beautiful Campus in the World  
**2012** - 3 Gates Millennium Scholars and 1 Flinn Scholar  
**2011** - Gates Millennium Scholar and Dorrance Scholar  
**2011** - National Merit Semi-finalist

## Post-secondary Plans – Class of 2018

Graduates directly entering 4 yr. post-secondary education - 87%  
Graduates directly entering 2-yr. community college - 9%  
Graduates participating in out-of-country military/missions - 4%

## College Scholarships:

<b>2017-2018</b>	<b>\$18,704,054</b>	<b>2013-2014</b>	<b>\$5,738,260</b>
<b>2016-2017</b>	<b>\$10,610,885</b>	<b>2012-2013</b>	<b>\$3,861,540</b>
<b>2015-2016</b>	<b>\$4,849,256</b>	<b>2011-2012</b>	<b>\$198,964</b>
<b>2014-2015</b>	<b>\$6,082,148</b>	<b>2010-2011</b>	<b>\$1,616,000</b>

## College Acceptance - 2013-2018

In all, the Classes of 2013-2018 were accepted to over 60 universities, colleges, and honors programs across North America, including: Allegheny College, Amherst College, American University, Antioch College, Arizona State University, Arizona State University - Barrett Honors College, Benedictine University, Brandeis University, Bowdoin College, Brown University, Bryn Mawr College, Carleton College, Case Western Reserve University, Champlain College, Claremont-McKenna College, Colby College, Coe College, Columbia University, Cornell University, Cottey College, Dartmouth University, Dominican University (Washington D.C.), Embry-Riddle Aeronautical University, Grand Canyon University, Grinnell College, Hampshire College, Harvey Mudd College, Hawaii Pacific University, Hofstra University (New York), Hope College, Hiram College, LA College of Music, Lafayette College, Lewis & Clark College, Lehigh University, Loras College, McGill University, Middlebury College, Mills College, Northern Arizona University, Notre Dame de Namur University, Oberlin College, Occidental College, Ohio Wesleyan University, Pitzer College, Prescott College, Purdue University, Reed College, Rensselaer Polytechnic Institute, Rocky Mountain College, Scripps College, Smith College, Sterling College, St. Francis-Xavier University, St. Mary's University-San Antonio, Tufts University, University of Arizona, University of Arizona Honors Program, University of California-Berkeley, University of California-San Diego, University of California-Santa Cruz, University of California-Santa Barbara, University of Denver, University of Iowa, University of Maryland, University of New Mexico, University of Portland, University of Puget Sound, University of Rochester, University of Texas-Austin, University of Toronto, University of Wisconsin-Madison, Wabash College, Wartburg College, Washington State University, Wellesley College, Wesleyan University, Western Washington University, Whitman College, Willamette University, Williams College, and Yale University.

## Phoenix Union High School District

PUHSD is the largest high school district in the state with 11 comprehensive campuses and 7 smaller magnet schools, including Bioscience. It has over 26,000 students and is the most ethnically diverse with over 60 languages spoken.