



Thomas Jefferson High School for Science and Technology 2019-2020

A GOVERNORS REGIONAL SCHOOL FOR SCIENCE AND TECHNOLOGY

6560 BRADOCK ROAD, ALEXANDRIA, VIRGINIA 22312
PHONE 703 750 8300 | FAX 703 750 5010 | tjhsst.fcps.edu

UNIQUE MISSION & BELIEFS

MISSION STATEMENT

The mission of Thomas Jefferson High School for Science and Technology is to provide students a challenging learning environment focused on math, science, and technology, to inspire joy at the prospect of discovery, and to foster a culture of innovation based on ethical behavior and the shared interests of humanity.

BELIEFS STATEMENT

At Thomas Jefferson High School for Science and Technology, we believe:

1. Critical thinking and problem solving skills are vital in addressing the complex societal and ethical issues of our time.
2. Students learn best in a community where academic disciplines are integrated, fostering an appreciation of how they interact and form a whole.
3. Global interdependence compels us to understand the languages, systems and diverse cultures of people throughout the world.
4. Literature, music and the arts are essential, timeless aspects of human existence.
5. The methods of science provide discipline to our search for structure in the world.
6. Research stems from a combination of fundamental knowledge, individual creativity and curiosity.
7. Effective communication is often the only difference between a good idea and a successful initiative.
8. Collaborative learning, athletics, and extracurricular activities develop leadership and interpersonal skills.
9. Responsibility and integrity are core principles in the pursuit of excellence.
10. Learning never ends.

About Us

Ann Bonitatibus, Principal

Brandon Kosatka, Director of Student Services

Thomas Jefferson High School for Science and Technology (TJHSST) is the product of a partnership forged between the business community and Fairfax County Public Schools (FCPS) to improve education in science, mathematics, and technology. This unique FCPS school offers a comprehensive program that focuses on scientific, mathematical, and technological fields. The core skills and values infused throughout the curriculum emphasize and promote critical inquiry and research, problem solving skills, intellectual curiosity, and social responsibility. As the regional Governor's School for Science and Technology in Northern Virginia, the school serves applicants from five participating school districts: Arlington, Fairfax, Loudoun, and Prince William counties, as well as Falls Church City. Of the 443 students in the Class of 2020, 156 are National Merit Semifinalists, and an additional 202 are National Merit Commended students.

Admissions

Through a competitive admissions process that selects students based upon their demonstrated aptitude and passion for studies in the scientific, mathematical, and technological fields, the TJHSST Admissions Office evaluates and considers prospective students' admission test scores, academic achievement, personal essays, and teacher recommendations. Applications are reviewed by independent selection committees composed of school administrators, counselors, and teachers from schools within the participating school districts.

Each year, approximately 480 students are offered admission to the incoming 9th grade class. The Class of 2023 admissions cycle offered enrollment to 494 of 2766 applicants

Currently, our grade level distribution and enrollment are as follows:

Enrollment

9th Grade (Class of 2023) – 470 Students
10th Grade (Class of 2022) – 459 Students
11th Grade (Class of 2021) – 440 Students
12th Grade (Class of 2020) – 443 Students

Student Research

Since its very first graduating class in 1985, student research has played an essential role in learning at TJHSST. Requirements for the Thomas Jefferson High School Diploma include the completion of an original engineering or experimental research project in one of thirteen on-campus laboratories or off-site through a mentorship program at a corporate, government, or university research laboratory.

- Astronomy and Astrophysics
- Automation and Robotics
- Biotechnology
- Chemical Analysis and Nanochemistry
- Computer Systems
- Engineering Design
- Energy Systems
- Microelectronics
- Mobile & Web Application Development
- Neuroscience
- Oceanography/Geophysical Systems
- Quantum Physics and Optics
- Prototyping and Engineering Materials

Selected outstanding research projects are published in TJHSST's annual student-produced research journal, TEKNOS, which has won numerous national awards.

Embedded Activities Period

In addition to the seven academic periods, students are required to participate in an activities period that is included in the instructional day. Affectionately referred to as "8th period", this additional class period of the day affords students the ability to seek out academic support and/or enrichment while also providing them the opportunity to participate in any of the over 150 clubs and activities exploring (but not limited to) diversity, academic competition, outreach, service, and more.

Accelerated Curriculum

The rigorous college preparatory curriculum provides students with the opportunity to achieve in all disciplines, with an emphasis on the sciences and the technology of applied sciences. All students are required to work toward a 26 credit Thomas Jefferson High School Diploma that parallels the Virginia state requirements for its Advanced Studies Diploma of 26 credits.

English	4
Mathematics (not including Algebra 1; AP Calculus required)	4
Science (Biology, Chemistry, Physics, and Geosystems)	4
Social Studies	4
World Language (in the same language)	3
Health and Physical Education	2
Fine Arts/Sci-Tech Elective/Cultural Studies	2
Science/Technology Research	1
Computer Science	1
Economics & Personal Finance	1
Total	26 Credits

TJHSST CEEB Code: 470054



Advanced Placement and Beyond

ADVANCED PLACEMENT COURSES OFFERED

English Lang/Lit	Micro/Macro	Chinese
Chemistry	Economics	U.S. Government
Psychology	Biology	Physics C
French Language	United States History	European History
Calculus AB & BC	Russian	German
Music Theory	Computer Science A	Statistics
Latin Vergil	Japanese	Studio Art
Art History	Spanish Lang/Lit	

** In 2019, 3647 AP Exams were taken by TJHSST students; over 98 percent of exams earned a score of 3, 4, or 5.

POST-ADVANCED PLACEMENT COURSES OFFERED

Multivariable Calculus	Electrodynamics
Linear Algebra	Neurobiology
Differential Equations	Intro to Organic Chemistry
Complex Variables	Artificial Intelligence 1 & 2
Probability Theory	Parallel Computing 1 & 2
Concrete Math	Computer Vision 1 & 2
Advanced Math Techniques	Mobile/Web Applications

FCPS Grading Scale

	Letter	Percent Range (4.0 Scale)
"Excellent"	A	93 – 100 (4.0)
	A-	90 – 92 (3.7)
	B+	87 – 89 (3.3)
"Above Average"	B	83 – 86 (3.0)
		80 – 82 (2.7)
"Average"	C+	77 – 79 (2.3)
	C	73 – 76 (2.0)
	C-	70 – 72 (1.7)
	D+	67 – 69 (1.3)
"Below Average"	D	64 – 66 (1.0)
"Failure"	F	below 64 (0.0)

Weighting:

- Honors courses are weighted with an additional 0.50 quality points.
- AP Courses receive an additional 1.0 weight for year-long courses.
- Selected post-AP courses (semester courses that require completion of an AP course prior to enrolling) receive additional weighting as well.

College Board SAT Scores (Class of 2018)

	Mathematics	Critical Reading
TJHSST	781	734
FCPS	608	604
Virginia	547	563
National	520	529

ACT Scores (Class of 2018)

	Composite Score
TJHSST	33.9
FCPS	26.3
Virginia	23.9
National	20.8

Class Rank

Class rank is not computed or estimated in FCPS or at TJHSST. The Class of 2019 Final Grade Point Averages (after 8th semester) ranged from 3.152 to 4.638.

Grade point average (GPA) is calculated on the basis of all high school courses for which credit has been earned, attempted, and previously awarded. High school courses taken in middle school may be expunged from the high school transcript.

Class of 2019 College Acceptance Data

Through an annual survey of all seniors, 99 percent of all TJHSST students in the Class of 2019 reported they would be attending a four-year college or university as their post-secondary plan intention.

The list of schools below reflects the most popular colleges or universities where 10 or more TJHSST students in the Class of 2019 were accepted.

William & Mary
University of Virginia
University of Pittsburgh
George Mason University
Virginia Tech
Pennsylvania State University
Virginia Commonwealth University
Purdue University
University of Michigan
University of Maryland, College Park
Carnegie Mellon University
University of Illinois at Urbana- Champaign
Cornell University
Georgia Institute of Technology
Northeastern University
The University of North Carolina at Chapel Hill
The George Washington University
Case Western Reserve University
New York University
Boston University
Georgetown University
University of California, San Diego
University of California, Berkeley
University of Chicago
Duke University

It is the student's responsibility to disclose discipline infractions to postsecondary institutions. FCPS does not disclose students' disciplinary information without express written consent from the parent or guardian or eligible student.

FCPS and TJHSST are accredited by the Virginia State Board of Education and the Southern Association of Colleges and Schools.

FCPS Profile: www.fcps.edu/about-fcps/performance-and-accountability/fcps-postsecondary-profile