Thomas Jefferson High School for Science and Technology 2022-2023
A GOVERNOR'S REGIONAL SCHOOL FOR SCIENCE AND TECHNOLOGY
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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.

Enrollment
Total enrollment for the 2022-2023 school year is 1,971 students.
Currently, our grade level distribution and enrollment are as follows:
- 9th grade Class of 2026: 639 Students
- 10th grade Class of 2025: 623 Students
- 11th grade Class of 2024: 441 Students
- 12th grade Class of 2023: 498 Students

Student Research
Since its very first graduating class in 1985, student research has played an essential role in learning at TJHSST. Graduation requirements include the completion of an original engineering or experimental research project in one of thirteen on-campus laboratories listed below 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 Nanotechnology
- 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 the `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 TJHSST course of study that parallels the Virginia state requirements for its Advanced Studies Diploma of 26 credits. This includes the following coursework:
- 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

TJHSST CEEB Code: 470054
ADVANCED PLACEMENT AND BEYOND

ADVANCED PLACEMENT COURSES OFFERED

| Subject                  | Advanced Placement
|--------------------------|---------------------|
| English Lang/Lit         | Micro/Macro Economics
| Chemistry                | Biology             |
| Psychology               | United States History |
| French Language          | Russian             |
| Calculus AB & BC         | Computer Science A  |
| Music Theory             | Japanese            |
| Latin Vergil             | Spanish Lang/Lit    |
| Art History              | Studio Art          |

** In 2022, 3776 AP Exams were taken by TJHSST students; 99 percent of exams earned scores of 3, 4, or 5.

POST-ADVANCED PLACEMENT COURSES OFFERED

(courses that have AP courses as a prerequisite):

- Multivariable Calculus
- Linear Algebra
- Differential Equations Complex Variables
- Probability Theory
- Concrete Math
- Advanced Math Techniques

** FCPS Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(93-100)</td>
<td></td>
</tr>
<tr>
<td>A-</td>
<td>(90-92)</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>(87-89)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>(83-86)</td>
<td>P: Pass</td>
</tr>
<tr>
<td>B-</td>
<td>(80-82)</td>
<td>WP: Withdrawal Pass</td>
</tr>
<tr>
<td>C+</td>
<td>(77-79)</td>
<td>WF: Withdrawal Fail</td>
</tr>
<tr>
<td>C</td>
<td>(73-76)</td>
<td>NM: No Mark (No Credit)</td>
</tr>
<tr>
<td>C-</td>
<td>(70-72)</td>
<td>T: Audit (No Credit)</td>
</tr>
<tr>
<td>D+</td>
<td>(67-69)</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>(64-66)</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>(50-63)</td>
<td></td>
</tr>
</tbody>
</table>

- Honors courses are weighted with an additional 0.5 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 2021)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Mathematics</th>
<th>Critical Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>TJHSST</td>
<td>783</td>
<td>748</td>
</tr>
<tr>
<td>FCPS</td>
<td>600</td>
<td>601</td>
</tr>
<tr>
<td>Virginia</td>
<td>567</td>
<td>584</td>
</tr>
<tr>
<td>National</td>
<td>528</td>
<td>533</td>
</tr>
</tbody>
</table>

ACT Scores (Class of 2021)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Composite Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TJHSST</td>
<td>34.5</td>
</tr>
<tr>
<td>FCPS</td>
<td>27.8</td>
</tr>
<tr>
<td>Virginia</td>
<td>25.6</td>
</tr>
<tr>
<td>National</td>
<td>20.3</td>
</tr>
</tbody>
</table>

The scores represent the national and state averages for public school students in the class of 2021 reported by the College Board and ACT. The FCPS score averages reflect an additional analysis inclusive of those students enrolled in June of 2021.

Class Rank and Grade Point Average

Class rank is not computed or estimated in FCPS or at TJHSST. The Class of 2022 Final Grade Point Averages (8th semester) ranged from 3.285 to 4.663.

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 2022 College Matriculation List

Through an annual survey of all seniors, 99 percent of TJHSST students in the class of 2022 reported they would be attending a four-year college or university as their post-secondary plan intention.

The list below reflects colleges or universities where 10 or more TJHSST students in the Class of 2022 reported a decision to attend.

- Carnegie Mellon University
- College of William & Mary
- Cornell University
- George Mason University
- Purdue University-Main Campus
- University of Chicago
- University of Illinois at Urbana-Champaign
- University of Maryland-College Park
- University of Michigan-Ann Arbor
- University of Pittsburgh-Pittsburgh Campus
- University of Virginia-Main Campus
- Virginia Commonwealth University
- Virginia Polytechnic Institute and State University

Student Disciplinary Infractions

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 of eligible student.

Grading Policy Changes Affecting the 2020-21 School Year

To provide increased flexibility to students and ensure they were not penalized by the challenges of distance learning, FCPS made the following changes to the high school grading policy for the 2020-21 school year only. These changes were announced in March of 2021. They included:

1. Use of No Mark (NM) instead of F grades for all courses. No credit was awarded, and the course was not factored into the student’s grade point average (GPA).
2. Students/families could choose a mark of "P" (Pass) instead of passing letter grades as their final mark in up to two current high school courses. Students had the opportunity to choose this through fourth quarter. This flexibility is in addition to the allowances for designating courses as pass/fail at the beginning of the school year. Therefore, a student’s transcript may include more marks of "P" than typically seen on an FCPS transcript. Additional information can be found on the Secondary Grading and Reporting website, FCPS Grading and Reporting.

Fall 2020 Instructional Information

- Attendance, Grading, and Reporting During COVID-19 Closure Spring 2020

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

FCPS Profile: https://www.fcps.edu/about-fcps/postsecondary-profile