



Aerospace Engineering and Aviation Technology

Elective Programs of Study

The Aerospace Engineering and Aviation Technology Program (AEAT) is a rigorous four-year high school course of study that provides broad and intensive college-level academic experiences with content and application focused on science, mathematics, pre-engineering and technology. AEAT, offered at DuVal High School, is a PGCPS specialty program and admits students in eighth (8th) and ninth (9th) for the upcoming year (entering 9th and 10th grades) after evaluation of their grade point average (GPA) and performance on the PSAT 8/9. Transportation is provided for all students.

Students are required to obtain a minimum of 13 credits in mathematics, engineering, research, and science courses and select a major by tenth grade to concentrate on those STEM courses as they progress through the program. Major components of the program include:

- external experiences (Internships, mentorships, and field trips);
- enrollment in Advanced Placement (AP) coursework with completion of exams strongly encouraged; and
- completion of the AEAT Practicum, which results in a five chapter paper.

As AEAT students complete STEM projects throughout their high school career, they will gain a skillset to help them write a five chapter research paper. Through the Aerospace Practicum course, students are guided through a master's level thesis that they present in a research symposium. A certificate of completion and documentation on a student's PGCPS high school transcript will be awarded to each student who completes the minimum 13 Science and Technology credits, meets the minimum requirements for high school graduation, and maintains a minimum cumulative GPA of 2.5.

All interested 8th grade PGCPS students will be considered for admission into AEAT program as long as they take the PSAT 8/9 at their school. PGCPS 9th grade students interested must apply to be considered for any openings in their current class. The PSAT 8/9 Test Administration will take place in December in the year preceding enrollment. Nonpublic school students in 8th and 9th grade interested in the AEAT Program must apply. Please visit www.pgcps.org/offices/testing-research-and-evaluation/testing/high-school-assessment and click on PSAT to obtain additional information.

The required course credits are distributed according to the STEM selected area of study.

	Aerospace Engineering	Aviation Technology	Exploratory
Science	4	4	4
Engineering Technology	3	2	2+
Math	4	4	4
Research	1	1	1

AEAT Program Planner

The program planner is the guide to ensure that students complete the required coursework for high school graduation and the AEAT Program. Please refer to the Program Handbook provided to the student/parent by the school coordinator. The Program Handbook will be the official guidance per the cohort school year. This handbook explains the program planner and ways to keep track of course completion. To ensure that AEAT students are following the correct schedule sequence, student schedules must be reviewed and approved by the Aerospace Engineering and Aviation Technology Coordinator. In addition, adjustments made to the major schedule sequence are made on a case by case basis with the approval of the AEAT Coordinator. Please note that students are to follow the planner they received upon entry into the AEAT Program.