

Mount Vernon High School
Home of the Majors

*"Majors achieve and
thrive together with
purpose and pride."*



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Admin and Counselors

(Shift to the Alpha Model)

Admin <i>Administrador</i>	Alpha <i>Asignación por Apellido</i>
Karen Boyd	A-Der
John Shaffer	Des-Lay
Lashonda Reed	Laz-Ram
Gina Brooks	Ran-Z
Adrian Williams	CSS & STEP

New Alpha <i>Nueva Alfa</i>	School Counselor <i>Consejero/a Escolar</i>
A-B	Bryce Green
C - Ev	Niasharee Frater
Ew-Hop	Ericka Jeter
Hoq-Mc	Mary McAlevy
Md-Pie	Camille Moore
Pif-Sli	Melissa Mentzel
Slj-Z	Paul Guillion
CSS & STEP	Karen Mazzocoli
ESOL Level 1 and 2	Catherine Samper

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P.R.I.D.E.	IB Learner Profile	WITHIN OUR SCHOOL
Preparation	<ul style="list-style-type: none"> ● Communicators ● Inquirers ● Knowledgeable ● Reflective ● Thinkers 	<ul style="list-style-type: none"> ● Majors walk with a purpose and; with the goal of arriving to class on-time. ● Majors aim to ● Majors are available to engage in all aspects of the learning process. ● Majors advocate appropriately when they need assistance (academic, behavior, social/emotional). ● Majors communicate with teachers and plan in advance for when they are not in class and to follow up on lessons missed.
Respect	<ul style="list-style-type: none"> ● Balanced ● Caring ● Communicators ● Principled ● Reflective 	<ul style="list-style-type: none"> ● Majors use appropriate tone of voice, word choice/language and body language. ● Majors are mindful of their environments and conversations. ● Majors respect the boundaries and personal space of others. ● Majors greet each other and return greetings to others. ● Majors follow the expectations set forth by teachers in their classrooms & the SR&R.
Integrity	<ul style="list-style-type: none"> ● Balanced ● Communicators ● Open mindedness ● Principled 	<ul style="list-style-type: none"> ● Majors are truthful and courageous enough to communicate with staff/peers. ● Majors are responsible and accountable for their actions and success. ● Majors are mindful of others and respect diverse perspectives. ● Majors are aware of their behaviors and how their behaviors can impact others.
Determination	<ul style="list-style-type: none"> ● Communicators ● Inquirers ● Knowledgeable ● Risk-Takers 	<ul style="list-style-type: none"> ● Majors are committed and present in the moment. ● Majors follow through with assigned tasks. ● Majors complete tasks to the best of their abilities. ● Majors persevere through difficult situations, tasks, conflicts and roadblocks and promptly communicate with teachers/staff for assistance.
Excellence	<ul style="list-style-type: none"> ● Balanced ● Inquirers ● Communicators ● Knowledgeable ● Reflective ● Risk-Takers 	<ul style="list-style-type: none"> ● Majors show maximum effort in all that they do. ● Majors strive to create balance between school and home and minimize distractions. ● Majors self-reflect as they grow and develop into life-long learners. ● Majors are able to self-regulate their actions in order to accomplish goals. ● Majors are team players and are always willing to lend a hand.



About Me

I was born and raised in Reston, VA and am a proud graduate of Fairfax County Public Schools. I attended college at William and Mary, where I earned a B.S. in Physics and an M.A. in Secondary Education. Outside of the classroom, I enjoy biking, cooking, and reading anything she can get her hands on.

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Curriculum Overview

Physics studies matter, energy, and the interactions between them. In physics, we try to create precise mathematical models to better understand the interactions that govern our universe. IB Physics is a 2-year course. Before starting their second year of IB Physics, students will decide whether to take IB Physics Standard Level (SL) or IB Physics Higher Level (HL). Over the two years, students will cover the following topics:

Year 1	Year 2 SL	Year 2 HL
Topic 1: Measurements and Uncertainties	Topic 3: Thermodynamics	All SL topics, and the additional topics listed below.
Topic 2: Mechanics	Topic 4: Waves	Topic 9: Wave Phenomena
Topic 5: Electricity and Magnetism	Topic 5: Electricity and Magnetism	Topic 11: Electromagnetic Induction
Topic 6: Circular Motion and Gravitation	Topic 7: Atomic, Nuclear, and Particle Physics	Topic 12: Quantum and Nuclear Physics
Topic 10: Fields	Topic 8: Energy	
	Option D: Astrophysics	

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Recommended Supplies for Class

1. Laptop-compatible headphones
2. Lab notebook

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Procedures and Routines for the Classroom

Self-Paced: students may work at their own pace throughout each unit. The end of the unit is a hard deadline—no work is accepted after that point

Mastery-Based: students demonstrate mastery through successful completion of exit tickets. If a student's exit ticket shows a need for additional support, students will get that support from me before retaking the exit ticket

Lab Safety: students are expected to adhere to all safety guidelines (please make sure your student has returned their signed safety agreement)

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Science Fair

- IB Physics students are expected to complete an independent scientific investigation, either alone or in a group of no more than 3
- Students will present their projects at the school science fair (please contact me at akgosling@fcps.edu if you have a scientific background and might be interested in judging our science fair!)
- Selected students will have the opportunity to present their projects at the regional and, potentially, state and international science fairs.
- The Science Fair grade counts as 10% of the course grade.

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IB Exam Information

- The IB Physics score is based on a combination of your Internal Assessment (IA), Group 4 Project, and External Assessment. All components must be submitted to receive an IB score. If you choose to opt out of the exam, contact our IB coordinator, Sarah Freeland, as soon as possible.
- In IB Physics II, the science fair project and IA are one and the same.
- The External Assessment will be taken in May (current dates: 5/2 and 5/3) and consists of three different papers given in two exam sections.

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Grading and Assessments

Quarter Grade Breakdown

Classwork/Homework	20%
Labs/Projects	40%
Tests	40%

Final Grade Breakdown

Quarter Grades	90%
Science Fair	10%

FCPS Grading Scale

A	93-100	4.0
A-	90-92	3.7
B+	87-89	3.3
B	83-86	3.0
B-	80-82	2.7
C+	77-79	2.3
C	73-76	2.0
C-	70-72	1.7
D+	67-69	1.3
D	64-66	0.8
F	53-63	0.0

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Attendance

- **Studies show a direct correlation between class attendance and student learning. The most important thing students can do to ensure success in this class is to be present**
- **If a student misses class due to an excused absence, they will have the same number of class periods they missed to complete make-up work.**
- **Please check Google Classroom when you are absent to get materials you missed.**
- **This is a lab class, and not all labs will be able to be made up. In this case, students may be given an alternate assignment at the discretion of the teacher. Any quizzes and tests that are missed due to an absence may be in an alternate form from the original quiz or test.**
- **In any situation where the student is absent, the onus for making up the work is on the student.**

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