

Welcome to AP Physics-C!

You have signed up for a college-level course in Calculus-based physics. While the Calculus will not be as rigorous as that in a math class, we will use use Calculus concepts to solve physics problems. The more comfortable you are with math, the easier AP Physics will be for you.

You will need to have the basic units and variables from AP Physics 1 memorized. Nothing wastes your time more than having to ponder the difference between “velocity” and “acceleration” or “Newtons” and “meters”! A full list of the units and variables you must memorize is on the back of this page. We don’t have a minute to waste in AP Physics, so you must come in August comfortable with units, variables and concepts from Algebra II and Geometry.

The first test will be on the first Friday of school, and it will cover the units and variables sheet.

Other than the memorization, there is no tangible summer assignment. Plan to work and play outdoors, read a good book, visit friends, talk to your family and rest your mind. Come back to school rejuvenated and ready to learn!

If you have questions about the course requirements or materials, I check my school e-mail a few times a week all summer.

I’m looking forward to a great year!

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Variable	Variable Name	Vector?	SI Units	Unit symbol
d, r, L	Distance		meters	m
$\Delta x, \Delta y, \Delta h$	Displacement	Yes	meters	m
Δt	Time interval		seconds	s
v	Velocity	Yes	meters/second	m/s
a	Acceleration	Yes	(meters/sec)/sec	m/s^2
g	Accel. Due to gravity	Yes	(meters/sec)/sec	N/kg or m/s^2
m	Mass		kilograms	kg
F	Force	Yes	Newtons	N
F_g	Weight	Yes	Newtons	N
F_N	Normal Force	Yes	Newtons	N
F_C	Centripetal Force	Yes	Newtons	N
PE	Potential Energy		Joules	J
KE	Kinetic Energy		Joules	J
PE_{el}	Elastic Potential Energy		Joules	J
W	Work		Joules	J
k	Spring Constant		Newtons/Meter	N/m
P	Power		Watts	W
p	Momentum	Yes	kilogram-meters/sec	(kg-m)/s
I	Impulse	Yes	Newton-second	N-s
Q	Heat		Joules	J
q	Charge		Coulombs	C
I	Current		Amperes	A
V	Potential Difference		Volts	V
R	Resistance		Ohms	Ω
E	Electric Field	Yes	Newtons/Coulomb	N/C
f	Frequency		cycles/sec or Hertz	Hz
T	Period		seconds/cycle	s
λ	Wavelength		meters	m