PHYSICS COURSE SYLLABUS

Frederick Douglass High School

Teacher(s): Mr. K. Suggs, Ph.D.	
Room Number is: 373	**Email: kelvin.suggs@atlanta.k12.ga.us**
Semester: Spring 2018	**Tutorial Days: Wednesday**
Textbook: Conceptual Physics	**Tutorial Hours: 3:15 – 3:45**
Textbook Price: $ 55.97	**Tutorial Location: Room 373**

Department Philosophy: To increase scientific awareness and academic proficiency through appropriate scholastic rigor in order to prepare our students to compete in a global society.

Course Description: The Physics curriculum is designed to continue student investigations of the physical sciences that began in grades K-8 and provide students the necessary skills to be proficient in physics. This curriculum includes more abstract concepts such as interactions of matter and energy, velocity, acceleration, force, energy, momentum, and charge. Students investigate physics concepts through experience in laboratories and field work using the processes of inquiry.

Course Prerequisites: Course Prerequisites: Students must successfully have completed Algebra, Geometry and Chemistry courses at High School.

GPS Standards: See http://www.georgiastandards.org/science.aspx

Course Outline:

Week 1:	**Motion introduction**		**Week 10:**	**Radioactivity**
Week 2:	**Scalars vs. Vectors**		**Week 11:**	**Properties of waves including reflection & refraction**
Week 3:	**Newton's Laws of motion**		**Week 12:**	**Electromagnetic radiation vs. mechanical waves**
Week 4:	**Newton's Laws of motion**		**Week 13:**	**Quantum theory**
Week 5:	**Gravitational forces**		**Week 14:**	**Particle & wave duality of light**
Week 6:	**Centripetal forces**		**Week 15:**	**Time, Space, Mass relationships**
Week 7:	**Work and Energy**		**Week 16:**	**Electricity and electrical energy conversions**
Week 8:	**Momentum and collisions**		**Week 17:**	**Direct current circuits: series vs. parallel**
Week 9:	**Internal energy, temperature & power**		**Week 18:**	**Electricity & magnetism**

Grading Scale*

Area	Percentage
Class work / Daily Work/Homework/ Quiz	**15%**
Labs	**20%**

Projects	**10%**
Tests	**35%**
Final	**15%**

*** Based on established national/international standards for the Advanced Placement and International Baccalaureate Programs, these courses are exempted from and/or may make modifications to the system- wide grading percentages. However, the approved syllabi template established by the DeKalb County School System will be used.**

Description of Grading and Quality Work in Physics:

Required Materials: Students will need to bring the following equipment to every lesson:

Grade	Scale	Description of work
A	**90-100%**	**Consistently demonstrates an exceptional level of quality and effort. Having all work in on time and completed to exceed expectations. Mastery in evaluating, synthesizing and applying the principles of Science.**
B	**80-89%**	**Consistently demonstrates proficient knowledge with a good effort and quality of work. All assignments are complete and on time. Demonstrates the ability to evaluate, synthesize, analyze and apply the principles of Science.**
C	**71-79%**	**Demonstrates proficient knowledge and the ability to apply and analyze Science principles. Works shows average effort. A few assignments may be missed or late.**
D	**70%**	**Work shows minimal effort and some assignments are late. Demonstrates a basic ability of recalling or comprehending Science principles.**
E	**Below 70%**	**Understanding is below basic in relation to Science principles. Work is of a poor quality and does not meet standards or expectations.**

a 3 ring binder(specifically for Physics only) with five subject dividers, loose leaf paper (tear out notebooks are not acceptable), black or blue ink pen and pencil, Calculator (not a cell phone) and one Composition book.

All students are required to maintain an organized semester notebook. This notebook will be used as a study guide for major tests, and quizzes. It should be divided into the following five areas: Reference Materials; Notes; Class/Homework; Labs; Tests; It is expected that each student keep their notebook in good order. The teacher will grade it periodically throughout the semester.

Classroom Expectations:

1) **<u>Courtesy –</u> Students are to be courteous to each other and the teacher. This includes listening in silence during presentations, respecting personal property of others, and raising hands to ask or answer a question.**
2) **<u>Classroom rules:</u>**

- ✧ **Follow instructions carefully and respond immediately.**
- ✧ **Be seated in the allocated seat by the time the tardy bell rings.**
- ✧ **Bring all necessary equipment to each lesson.**
- ✧ **Wait to be dismissed by the teacher at the end of the lesson.**
- ✧ **Eating and drinking in the class are forbidden.**
- ➲ **No cell phone, headphone or audio equipment use allowed at any time.**
- ➲ **Students should bring reading materials pertaining to school in case work is finished early.**

If these rules are broken or if a student displays unacceptable behavior they will either be given a warning, detention or Administrative referral according to the severity of the violation.

In the case of detention the Parents/Guardians will be informed and the student will have one day's notice to arrange transportation. A detention slip will be sent home to be signed by the parent/Guardian of the student.

3) **<u>Cheating –</u> If a student is involved in cheating they will be given zero. This includes handing in work that they have not completed themselves, plagiarism, communicating in a test or quiz and using unauthorized material in a test. If you do need to use a reference source, ACKNOWLEDGE what you have borrowed. When you take ideas from books or articles, you MUST cite them and acknowledge them in a list of references.**

Late Assignments: All work is to be handed in on time. If a student fails to do so it will receive a 50% deduction. However if the work is graded the day the assignment is due, the work cannot be graded and will receive a Zero. Long term projects will receive a 10% reduction for each day that they are overdue. No late work will be accepted after assignments have been graded.

Make-up Policy: If work is missed following an *<u>excused absence</u>* it must be made up. The work must be requested by the student the day they return to school and it must be scheduled at the teacher's convenience. The Make-up work is due within the same number of days as the student was absent (up to a maximum of ten days). Long term assignments with established due dates, such as projects, are due upon return. Missed labs must be made up during tutorials in the afternoon. Students must coordinate this with the teacher.

Re-do Policy: "Redo" Work indicates work that was completed ON TIME, but not at a level that is satisfactory to the expectations given. High-quality work is expected and students will be given opportunities to redo SOME work until it meets standards specified during instruction. This is at the discretion of the instructor.

*****Teacher reserves the right to make additions or deletions to the syllabus as needed. *****

K E E P T H I S S Y L L A B U S I N T H E F R O N T O F Y O U R B I N D E R

Please read the following, sign and return to your teacher. This syllabus needs to be placed in the front of the student's notebook for future references. **********
I have read and understand the rules and guidelines set forth in this syllabus. I will also will review and assist my child with organizing his/her notebook...

_____

Print: Student's Name

_____ _____

Student Signature **Parent/Guardian Signature**

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