Back To School Night (Physics) & about the course

Hello Parent/ Guardian's

Welcome!

We are close to completing a month into new academic year. I am hopeful that the initial anxiety levels are something of a past. At this point I expect my students to have settled comfortable into the learning process. Here are few things that I will go over on Thursday during back to school night. If for some reason you cannot make it this should give an idea of the process in my class. Some of the things like course work, grading styles were already put in place and I am just following the rest of the MHS physics group.

If there is anything that needs further clarification please feel free to contact me anytime. **(rbulusu@mtsd.us)**

1. What topics will be covered in physics?

Constant Velocity, Uniformed Acceleration, Forces (balanced/unbalanced), Projectiles, Uniformed Circular Motion, Impulse/Momentum, Energy. if time permits Waves (sound/ light).

Mostly topics related to mechanics.

Question: Where can I find the instructional materials if my kid is absent or has lost the materials?

All the worksheets will be posted online under faculty web pages. Please visit my home page on the high school web site on a regular basis. We complete all the problems in class.
Online resource: www.physicsclassroom.com. Secondly the text book provided to the students.
I provide reading materials too.

Question: What is an assessment guide or student progress guide?

An assessment guide is a document that all of the physics teachers have made collaboratively which describes the knowledge and skills that every student is expected to master before they sit for a **summative assessment (test graded for points)** such as a unit exam, midterm, or final. It outlines specific learning objectives, types of questions that students may be asked on an assessment, and knowledge/skills that students will need to master and apply on the assessment. There is assessment guide for e**very unit** that is taught and because assessment guides are something that all physics teachers follow and not just me all assessment guides can be found online under the science department and available to students before instruction occurs. It is a check list of topics that we expect to master for every unit.

Question: How will my child be assessed?

All teachers teachin**g College prep and Honors physics** will be administering two types of assessments**: formative and summative assessments**.

Formative assessments are assessments that will be administered while instruction is occurring, that is, while students are still forming their conceptions and include quizzes, homework, and participation. No grade is assigned. On the grade book (genesis) you will see check plus, check or check minus). **Check plus: good, Check: minor errors, Check minus: needs to practice, few errors, concept based errors)**

Summative assessments (similar to Traditional tests) are assessments that are administered after instruction to see how well the student has learned the material at the summation of learning. These include unit exams, midterms, and finals. There will be at least two summative per marking period. These carry points and reflect the actual grade of the student.

Question: How will my child be graded?

As f**ormative assessments** are administered during instruction and all students learn at different rates, it is unfair to associate grades to formative assessments. Formative assessments are a chance for all students to gain practice and experience in the concepts that they need to master. It is a time for students to develop their ideas and not for students to be penalized for not "getting it" as fast as other students.

Traditional grades are associated with **summative assessments** and students will be afforded the opportunity, after a period of reflection, to retake end of unit exams if they feel that they have a better mastery over the concepts. *Essentially, their overall grade will only reflect their knowledge of physics.*

Question: So only two grades for the marking period based on the test? What if my child does not do well on the summative test?

The overall grade for the marking period is based only on the summative test. There will be no homework grade or extra credit. There is an opportunity for retaking the summative test. If a student wants to improve his/her grade they can retake the summative test. But before they retake I would encourage the students to see me for extra help, practice check their mistakes on the original summative and be prepared for the retake. There is no doubt students can improve on their performance and understanding.

Question: Is this method of grading just pertained to my child's class?

All the students taking Physics in the 9^{th} grade will have the same policy for grading. All the freshmen Physics teachers schedule the tests around the same time frame for testing and retakes. Point values are same. Grading rubrics are prepared too.
Bottom line the course is consistent for all the classes in topics taught and how the tests are graded.

Question: When I was in high school I took biology as a freshman; physics was offered to juniors and seniors. Why is my freshman child taking physics? Why do we do Physics first?

As a department we looked at the freshmen biology course and found that it required a foundation in chemistry and physics that students did not yet understand, it relied mostly on memorization, and overall did not offer much "in depth" science investigation. Similarly, chemistry students required some knowledge of energy concepts, electricity, and light as a foundation; these are all concepts taught in physics. We decided that it is in the best interest of students to master physics first, then chemistry, and experience biology as the culminating high school science. Also check the school science department webpage for additional discussion on this topic.

Question: Is 9th grade physics heavily reliant on problem solving and solving equations?

The **main focus** of this physics course is to understand different modules of physics using representations associated with these modules. These representations include diagrams, graphing, written descriptions, data charts, and mathematical representations. Problems are usually interpretive in nature and designed to apply the concepts that students have learned to achieve a more robust understanding of the physical model. Mathematical representations, which are a focus of the class, are not the main focus and will be applied after concepts are developed. In Honors we use little trig. (sin, cos, and tan angles), but do not worry lot of practice will be done in class. Based on previous classes here I am confident they will be comfortable using little trig. Most of the math is simple multiplication and division.

Question: What can I do to help my child?

Please encourage them to see me for extra help whenever needed. Ask them to aggressive in class asking questions. I understand some kids might ne shy.. so the strategy that I normally employ on a day to day basis requires active participation. For example I will assign problems to group of two or three kids. They need to discuss and come up with a solution and present the solution to the whole class. Students are encouraged to ask questions after the problem is presented. I ask questions to see how much each kid understands. So if you can find time or get a chance please look over your child's notes. See what we are doing in class and ask them to explain what a diagram, graph, or concept means to them. If they cannot, then try to find out where their knowledge breaks down or ask them if there is anything that they do know about the diagram, graph, or concept and work from there. See how confident they are extend the discussion by asking them what it would mean if something on the diagram or graph were to change. The textbook is also a good resource as well as an online tutorial website called: http://www.physicsclassroom.com/

Question: When is your afterschool help day?
Tuesday (2.15- 3.15) R 2311 (science wing) but if your child cannot come after school on Tuesday then they can see any physics teacher they wish as all after school help days will have at least one physics teacher available.
Thank you and I look forward to a great year of learning.
Rama Bulusu