Syllabus, Fall 2020-2021

Honors Physics, Amy Jacob

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Office Hours: TBD

**Physics** is the study of the motion and behavior of matter. This semester we will be exploring both how and why things behave the way they do. Honors Physics is a fast-paced course that uses hands-on activities in which we will employ an in-depth and mathematical approach. One of the primary goals that I have for my students is to learn from these hands-on practical experiences as opposed to mindless memorization. Therefore, we will be doing a lot of practicing. Just like in sports, success relies on muscle memory, the same applies to physics which also depends on the muscle memory of the brain. Mathematical analysis is one form of repetition we will be using to build a strong physics foundation.

**Curriculum:**

Honors Physics will follow the Common Core and Essential Standards: <http://www.dpi.state.nc.us/docs/curriculum/science/scos/support-tools/unpacking/science/physics.pdf>

**Course Outline:**

Unit 1: One Dimensional Motion

Unit 2: Force

Unit 3: Two Dimensional Motion

Unit 4: Energy and Momentum

Unit 5: Waves and Sound

Unit 6: Waves and Light

Unit 7: Electricity and Magnetism

**Labs:**

The information obtained from each lab will be used throughout the semester. We will be using lab information to formulate the basic understanding of the concepts in Physics and will build upon these with each topic. It is imperative that each student attend all labs. Please see me to sign up for a time to make up any missed labs.

**Demonstrations:**

These are important also not to miss, as they are to give the students another perspective to the theories and mathematical language of chemistry.

**Canvas:**

Power Points, notes, assignments, solutions, announcements, handouts, and worksheets can all be found on canvas.

**Absent/Late Work:**

When you are absent it is **YOUR** responsibility to access any missed work on Canvas. Late assignments will be accepted 1 day late only with a 25% reduction.

**Materials to be brought to every class:**

* Calculators, must be have these functions: Scientific Notation, Trig functions
* Notebook paper
* Pencils
* Binder for organization, please: no spiral notebooks
* NC Physics Reference Table, given the first day of class
* Ear buds

**Classroom rules:**

* Cell phones: May only be used when given prior permission.
* Be in your assigned seat and completing the warm-up when the bell rings.
* Any homework or classwork that is due should be on your desk by the time the bell rings.
* Raise your hand when wanting to make a comment or ask/answer a question.
* Be respectful and kind to all of your peers and their learning enviornment.
* Follow all school/district rules, regulations, and policies.

**Grading Policy:**

Your AP Chemistry grade consists of the following: tests, demonstrations, projects, quizzes, classwork, and homework. Students are responsible for completing each component of an assignment regardless of whether or not that component is ultimately graded.

Tests: 20 points Quizzes: 5-10 points Demonstrations/Labs/Projects: 10-20 points Homework and Classwork: 5-10 points

**Lab Rules:**

* No food, drinks, or gum.
* Hair and loose clothing must be tied back and secured.
* All personal belongings must be left at your desk with the exception of a writing utensil and your lab papers.
* Goggles must be worn during all labs that utilize materials other than air and water.
* Always read the directions and labels before the use of anything in the lab and be sure to ask questions if you are ever unsure.
* All equipment must be put away and your work area cleaned as instructed.

The physics reference sheets may be found here: <http://www.ncpublicschools.org/docs/accountability/common-exams/physics-reference.pdf>

**Other online tutorials may be found here:**

http://www.bozemanscience.com

Suggested Websites:

<http://www.physicsfundamentals.org/>

<http://www.physicsclassroom.com/>

<http://www.aplusphysics.com/>,

<http://www.khanacademy.org/science/physics>

As your son/daughter’s teacher, I will treat all students equally and with respect. I strongly believe that effective parent/teacher communication will promote the academic success of students at Marvin Ridge High School.

Sincerely,

Amy Jacob

**Syllabus Contract**

**As a student in Mrs. Jacob’s class, I agree to:**

- Follow procedures and expectations as outlined in the attached letter

- Abide by policies outlined in the school handbook

- Attend class regularly and be on time

- Be courteous and respectful to my peers, my teacher, and my school

- Stay on task in class and complete my assignments

STUDENT NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_

STUDENT SIGNATURE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PLEASE INTIAL THE FOLLOWING STATEMENTS INDICATING YOUR COMPLIANCE TO THE GRADING POLICY:**

\_\_\_\_\_\_ I understand that any late work will be accepted for a 10% reduction for each day late.

\_\_\_\_\_\_ I understand that if I am absent I am responsible for all missed work and notes.

**As a parent/guardian of a student in Mrs. Jacob’s class I:**

- Have read the course requirements/expectations information sheet for my child.

- Will let Mrs. Jacob know of any medical, physical, mental, or dietary needs of which she should be made aware.

- Will contact Mrs. Jacob with any questions or concerns.

GUARDIAN NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

GUARDIAN SIGNATURE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Honesty Pledge: To be completed and signed by the student:**

*I pledge that my participation in this class will be one of integrity. In doing this I will…*

STUDENT NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_

STUDENT SIGNATURE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_