

Academic Physics Syllabus — Fall 2017

INSTRUCTORS: Aaron Bryant
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ROOM: F 222

OTHER INSTRUCTORS: Coach Torres, Mr. Walding (you may also see either of them if you prefer to get a second explanation)

COURSE DESCRIPTION: Our study of physics this fall will include the following broad topics: linear motion, two dimensional motion, the Laws of Motion, forces, work, conservation of energy, and power.

CONFERENCE/TUTORIAL HOURS: Before school (8:15 am — 8:55 am), after school (4:20pm — 4:45 pm), or by appointment.

MATERIALS: Students are required to bring the following daily:

1. Notebook for holding all physics papers
2. Pen or pencil
3. Scientific calculator
4. Paper (A spiral for notes would be a good idea)
(Textbook is online)

TEXTBOOK: The textbook is **Essential Physics** by Hsu, Chaniotakis, and Pahre (Ergopedia, Inc) and can be accessed online at <http://www.essential-physics.com/TX/sbook> (further details forthcoming - we do not use the text much.)

GRADING SYSTEM: Tests will count 60% of the six weeks grade. Homework will count as 10%. Labs and other classroom work will count the remaining 30%. Emphasis is placed on problem solving; therefore **all work must be clearly shown to get credit for any problem on homework, labs, tests, or quizzes.**

Physics is a laboratory science. You will spend about 40% of class time on laboratory work. You are to follow all safety rules and instructions. Violations of safety rules may result in removal from the lab and will result in the loss of lab participation points for that lab. Your **quality** participation during lab activities will be evaluated by me and will be worth 50 points of your lab grade.

MAKEUP POLICY: Late work will be assessed a **20 point penalty per class day late (A to A or B to B) unless a student has an excused absence. After two class days the most a student may earn for an assignment is 50% (until the end of the unit).** Students are responsible for all work missed. Class notes and assignments are posted on Mr. Bryant's website: bryantacademicphysics.weebly.com and will be transitioning to BLEND. Tests that are made up after the first class day beyond the test date may be a different format.

Tests can be corrected and the grade improved by up to half of the number of points missed on the original test or quiz. These corrections must be done within five school days. Corrections must be made using the following procedure:

1. Test corrections must be done in the classroom outside of scheduled classroom time. The tests are never to leave the classroom or you will lose credit for the test. Some quizzes can be corrected outside of the classroom.
2. Corrections must be done on a *separate* sheet(s) of notebook paper.
3. Multiple choice questions must be written out along with the corrected answer. Computational problems must be solved using the process shown in the example problems worked in class.
4. **EACH ANSWER MUST BE JUSTIFIED AS TO WHY IT IS CORRECT.**
5. Corrections are to be stapled on top of the original test or quiz. Your name and test or quiz title must be clearly indicated at the top of the first page of the corrections.

CLASSROOM GUIDELINES:

1. Be here **ON TIME** and be here to stay.
2. Telecommunication devices must be turned off and must remain out of sight or they will be confiscated.
3. Be courteous. Show respect for all other students (and teachers).
4. Do not talk while the teacher or recognized student is talking.
5. Be an active participant in class.
6. Ask questions.

I will follow the Student Handbook on discipline but I expect each of you to act in a responsible and mature manner.

UNIT	DESCRIPTION	6 WK	OBJECTIVE	TEKS
1	Motion	1	The student understands that speed, velocity and acceleration are ways to mathematically describe motion.	4 A,B,F
2	Linear Kinematics	1	The student will apply the kinematics and construct graphs to determine information about uniform linear accelerated motion.	4 A,B,F
3	Vectors and Projectile Motion	1/2	The student will apply kinematics and vector addition to determine information about projectile motion.	4 A,C,F
4	Laws Of Motion Forces Part I	2	The student will understand the laws governing motion by demonstrating the effects of forces on moving objects through the creation and analysis of free body diagrams.	4 D,E
5	Laws of Motion Forces Part II	2/3	The student will understand the laws governing motion by demonstrating the effects of forces including friction and forces acting on inclines through the creation and analysis of free body diagrams and vectors	4 D,E
6	Work, Energy, and COE	3	The student knows that work and energy are related, that changes occur within a physical system, and recognizes that energy is conserved.	6 A-D