

Principles of Physics

2014-2015

NOTE: This syllabus is tentative and subject to change.

Syllabus for: Drew Bentley

E-mail address: bentled@mcgill.pvt.k12.al.us

Course Description: This laboratory-based course provides exploratory experiences and inquiry with the practical applications of physics emphasized. Topics investigated through the year include motion, forces, momentum, gravitation, energy, heat, electricity and magnetism, sound and light. Selected applications of physics principles to current technology are examined. Appropriate opportunities for mathematical application and reasoning are provided during the course.

Textbook(s): **Physics: A First Course** (CPO Science)

Supplemental Reading: Any supplemental materials will be given as handouts in class.

Class Materials Required: Textbook, notebook (graph paper notebook), Lab Notebook, pen, pencil, calculator, flash (jump) drive (Lexar drives seem to work best), pack of dry erase markers (expo), 6 inch ruler Don't come to class without them!!!

Course Projects: Information to be given in class at a later time.

Course Outline (Subject to change)

Topic	Date of Completion	Textbook Chapters
1. Measurement & Analysis	August	Chapters 1, 2
2. Kinematics (motion in 1 dimension)	September	Chapters 2, 6
3. Forces & Dynamics	October	Chapter 5, 6, 18
4. Conservation Laws (Momentum & Energy)	November	Chapters 3, 4
5. Mechanical Energy	December	Chapters 4, 10
6. Electricity & Magnetism	January	Chapters 15, 16, 17
7. Electrical Energy	February	Chapters 13, 14
8. Light as a Particle	March	Chapters 22, 23
9. Waves and Light	April	Chapters 20, 21, 22
10. Modern Physics	May	Chapters 24, 12

School Grading System: Refer to Student Handbook.

Class Grading Procedures: Final grades will be determined by dividing the total number of points earned by the total number of points available to obtain a percent. Letter grades will be assigned according to the percent range outlined in the Student Handbook.

Extra Credit: Extra credit is defined as work that is above and beyond the "call of duty" expected in everyday class sessions. Students must arrange for extra credit during the quarter. Do not expect extra credit assignments to be assigned on the last day of the quarter.

School Procedures for Make-Up Work/ Excused absences:

Refer to the Student Handbook. Arrangements for make-up work following an excused absence must be made within 2 days of the student's return to school. When a student misses a test or quiz, their name will be written on the white board along with the date they have selected to complete the work. Failure to show up for a scheduled make-up will result in a zero for the grade.

Teacher Specifics:

- Homework for each day will be listed on the white board. Be sure to check for assignments and list them in your homework pad each day.
- All handouts that are missed due to an absence will be placed in a folder behind my desk. After returning from an absence, students will be responsible for collecting their handouts from Coach Bentley. Handouts and homework assignments left in the tray and not turned in by the due date (adjusted to the number of days absent) will result in a zero for the grade. **Students are responsible for obtaining any missed notes from a classmate.**

Availability: Help will be available to students outside of class on a scheduled basis. Please meet with me to schedule times. All make-up tests, quizzes, and labs must be done at this time.

Rules/Regulations in addition to Student Handbook:

1. Be in your seat with your materials, bell work, and homework out when the bell rings.
2. Raise your hand and wait to be called on before speaking.
3. Police your uniforms at the door. Do not enter the classroom with shirt tails out.
4. Most importantly - Treat all people, students and faculty, with respect.