

AP PHYSICS C: MECHANICS

Syllabus 2023



James Clemens High School
11306 County Line Road
Madison, AL 35756

Teacher: Tammy Simons
Email: tssimons@madisoncity.k12.al.us
Phone: 256-261-5313

- I. Course Description:** This is a fast-paced calculus-based course in which we will study the natural laws of physics as they apply to Newtonian mechanics.
- II. Course Objectives:** Students will master topics in the following areas: kinematics, Newton's Laws of Motion, work, energy and power, systems of particles, linear and rotational kinematics, rotational momentum, oscillations, and gravitation.
- III. Classroom Expectations:** All students should be prepared when coming to class. Work is to start immediately. Students will be expected to do all assigned work. Project/lab work is a big part of the class. Students will be expected to work together to achieve common goals. Students are to follow all James Clemens High School general expectations.

Accommodations:

Requests for accommodations for this course or any school event are welcomed from students and parents.

Concerning laptop utilization:

1. Student laptops should not be hard wired to the network or have print capabilities.
2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers.
3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops.
4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

Cell Phones:

Students are expected to have phones silent and **put away** during classes unless directed to use for data collection during lab exercises.

- IV. Grading Policy:** Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The Final counts for 20% of the overall grade.

All daily assignments must be upload to Schoology by the deadline posted.
LATE WORK IS NOT ACCEPTED ON DAILY ASSIGNMENTS.

- V. Make-up Test Policy:** Makeup tests for excused absences will be given in my classroom, B110 during Refuel.
- VI. Text and Other Required Reading:** **Text:** Physics for Scientists and Engineers (4th e), Randall Knight, Pearson
Other: Selected other texts and resources provided by instructor.
- VII. Materials and Supplies Needed:** 3-ring binder, paper, graph paper, pencil, pen, dry erase markers, and scientific calculator (**CELL PHONES ARE NOT ACCEPTABLE**)

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18 – WEEK PLAN*	
Week 1	Calculus review, Vector analysis
Week 2	Kinematics
Week 3	Kinematics
Week 4	Newton's Laws of Motion
Week 5	Newton's Laws of Motion
Week 6	Work, Energy and Power
Week 7	Conservation of Energy
Week 8	Center of Mass, Systems of particles, Impulse and Linear Momentum
Week 9	Conservation of Momentum, Collisions
Week 10	Rotational Inertia
Week 11	Torque
Week 12	Rotational Motion
Week 13	Equilibrium
Week 14	Gravitation
Week 15	Oscillations
Week 16	Exam review
Week 17	Exam review
Week 18	Other Physics Topics

* The syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions, or substitutions. Adequate notice will be provided to students of any necessary changes.

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Dear Parent/Guardian,

I look forward to having a great year! I feel fortunate to have your son/daughter in my class this semester and hope that you will contact me should you have any concerns about the progress of your son/daughter or any aspect of the instruction. With your son/daughter, please read the attached policies, then **fill out the online form** with the link provided below. Please provide a current email address and phone number at which I can contact you should the need arise. Please contact me at school with any concerns.

Thank you,

Mrs. Simons

Instead of printing out a page saying you have received and read the syllabus, please fill out this online survey with your contact information! 😊

<https://tinyurl.com/JCPhys2223>