

AP PHYSICSC: MECHANICS

2025 Syllabus



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. Students are to follow all James Clemens High School and Madison City Schools general expectations.

Accommodations:

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

Laptop Utilization:

If technology is needed in the classroom, then **school issued Chromebooks must be used**. Personal electronic devices may only be used **at the teachers' discretion**.

Cell Phones – District Policy:

Cell phones and earbuds/headphones will not be allowed to be used during classroom instruction time, unless directed by the teacher. Phones and earbuds/headphones will be put away in a location designated by the teacher and placed in silent mode. In secondary schools, students will have access to their phones and earbuds/headphones only outside of classroom instruction time such as between classes and lunch. Failure to follow these procedures will result in a disciplinary referral to the office.

Using AI:

There are times when ChatGPT or AI may be helpful, but usually it is not a good tool for learning physics. All use of AI **MUST** have prior teacher approval. **All assignments are subject to a verbal review follow-up. Students using AI without approval or copying from another student will receive a score of zero for that assignment.**

- 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. **No makeup for unexcused absences for minor grades or minor grades not turned in on time.**

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 on designated days.
- VI. Text and Other Required Reading:** **Text:** Physics for Scientists and Engineers (4th e), Randall Knight, Pearson
- VII. Materials and Supplies Needed:** 3-ring binder, paper, pencil, pen, dry erase markers, and **scientific calculator** (cell phone calculators are NOT allowed).

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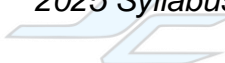
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18 – WEEK PLAN*	
Week 1	Calculus review, Vector analysis
Week 2	Kinematics
Week 3	Kinematics
Week 4	Newton's Laws of Motion
Week 5	Newton's Laws of Motion
Week 6	Work, Energy and Power
Week 7	Conservation of Energy
Week 8	Center of Mass, Systems of 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/JCPhys2425>