

AP Physics

40.0831014 and 40.2831014
A.R. Johnson Magnet High School
Academic Year: 2025-2026

Teacher: Mr. Baker

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Tutoring Dates: TBD or by Appt.

Remind Code: apphysarj
Class Room: 808
Grade Level: 11th, 12th

Welcome Letter

Welcome students, I hope you are excited for a fun year in Physics! I am very excited to teach this class and I hope I can share my enthusiasm with you all this year. This will be a fast paced course, but we will have ample time to cover all the material, master the standards, and do fun labs!

Course Description

AP Physics 1: Algebra-Based, or just AP Physics, is essential for understanding motion and energy. **AP Physics 1** is designed to be the equivalent of a first semester college algebra-based physics course devoted to topics in Newtonian Mechanics. Students will cultivate their understanding of physics by developing models of physical phenomena through inquiry-based investigations (hands-on laboratory experiments). This course will focus on AP exam preparation and to foster skills that will allow for the student to be college ready through course completion.

Prerequisites

From College Board: "Students should have completed Geometry and be concurrently taking Algebra II or an equivalent course. Although the Physics 1 course includes basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the AP Physics 1 course itself."

Note to student: Students who have completed AP Precalculus or are taking the course currently will be well prepared for the class.

Course Curricula

Unit 1: *Kinematics* - August

Unit 2: *Force and Translational Dynamics* - September

Unit 3: *Work, Energy, and Power* - October

Unit 4: *Linear Momentum* - November

Unit 5: *Torque and Rotational Dynamics* - December/January

Unit 6: *Energy and Momentum of Rotating Systems* - January/February

Unit 7: *Oscillations* - February/March

Unit 8: *Fluids* - March/April

We will aim to finish all units before the start of Spring Break.

The AP Exam will take place in May with the exact date being listed on College Board.

Launchpad, Canvas, and Textbook

- **Launchpad** is our single sign on platform. All the apps/webtools that students will access throughout the school year, in all their courses, can be found here. You may also download the Classlink app to your device to access Launchpad from your phone or tablet.
- **Canvas**, our learning management system, can be found in each student's Launchpad. The courses they are registered for will be displayed on the Dashboard in Canvas. Click on each course to find announcements, assignments, and all online instruction. You may also download the Canvas app for parents and the Canvas app for students to your cell phone or tablet.
- **AP Classroom**, accessible through AP Central, will be your students primary destination for AP course content. They will be given instructions to register for the class section in person and access information will be available on Canvas.
- **Textbook.** College Physics: Explore and Apply 2nd Edition, AP® Edition © 2019
- **Auxiliary Textbook.** College Physics for AP® Courses 2e, Open Stax

Required Materials

- RCSS District issued laptop or 1:1 Device (not phone)
- Blue or Black Pen and Pencils (Pens will be needed for Labs)
- (No requirement for Graphing Calculator in Fall Semester. Will update as we receive information if it will be required for test.)
- Folder
- Laboratory Notebook. This can be a composition notebook, but it would be preferred to have a University grade laboratory notebook to show prospective universities to get laboratory credit for the class (pending exam results). Options include the AMPAD Computation

Book 4x4 Quad Ruled (spiral or regular bound): Ampad Computation Book, 4x4 Quad Ruled, 76 Sheets, 11-3/4" x 9-1/4",

https://www.amazon.com/Ampad-Computation-Ruled-Sheets-22-157/dp/B000DZEA2G/ref=sr_1_31?crid=31AH7RID1FRXN&dib=eyJ2IjoimSJ9.zMM09Tf0V84h0aa8MmLU50w6MFqFtcGmtLzoiDi2HY8fD3lRZPNI7nIrQEDvew0TDPkJujN2TcCe530hjXYg4A74BuoXcjxjIg9LmdI3rDz3LsvLNccib_Vg_9_18sW8VCQtLLY352yg81bDcmAqMCNbAGu5hbJiHXdDfADpVaaF801azk7QXAt4-R0WXAEjk0WtL4ulR8veTAuBLV7zP_zIFW2FptDAQfMsNmIMGmKRzHrcn1u1f74ogc3pc0Ym31EidOWt2mq34HDwnVyVx5KI8H1f-3u9dlVSVfRdMj8.mpX3hdx84UgZiu0lwXUKf1RF_oD0VaRbjvrMz5F8_TA&di_b_tag=se&keywords=lab+notebook&qid=1722609690&srefix=lab+notebook+%2CCaps%2C91&sr=8-31

or the General Science Lab Notebook from Flinn Scientific

<https://www.flinnsci.com/physical-science-lab-notebook/ap8069/>

- STEAM Journal (composition notebook)
- Notebook for notes

Grade Breakdown

High School student performance will be recorded and reported in all courses. Calculation of Final Grades will be determined by the cumulative semester average using the following criteria:

Course Material and Mastery

- **Minor Assessments: 60%**
 - Quizzes
 - Labs
 - Activities
 - Classwork
- **Major Assessments: 40%**
 - Tests
 - Projects
 - Problem Sets

Disciplinary Actions

Students are expected to follow the code of conduct during instructional time. Lab safety violations will be an immediate admin referral. Lab supply rooms will be locked during instruction and only teacher/admin will be given access.

For level 1 offenses (which do not immediately involve administration or concerns for student safety):

- 1st offense – redirection and verbally warning
- 2nd offense – documented, redirection, parent contacted
- 3rd offense – documented, detention, parent contacted
- 4th offense – documented, detention, parent conference
- 5th offense – referral to the administration

Late/Missing Assignments

Late work is defined as assignments that are submitted after the specified deadline. This does not apply to work submitted late due to absence from school. Students are expected to submit assignments on time. Multiple incidents of late work may result in teacher-student-parent conferences to examine and correct the student's work habits through an academic contract. Scores may be reduced by 5% per school day for a 25% maximum reduction (five school days). Late work submitted after the fifth school day will only be accepted at the teacher's discretion.

Relearn/Reassess

Students who perform below 70% on a major assignment will be given the opportunity to relearn and reassess to show improvement in their mastery of the standard. Students will submit a Relearning Plan as part of this process. This plan should include:

- Analysis of their errors or misconceptions on the previous major assignment.
- Complete assignments provided to relearn the content for mastery. Students may also attend a tutoring session.
- Complete and turn in any missing assignments.
- Commit to date(s) and time(s) to redo the assignment or retake the assessment.
- Share the plan with their parent and teacher for approval and signatures.

Upon satisfactory completion of the plan, as determined by the teacher, student should be given a minimum of one opportunity to be reassessed. Teachers should have discretion to determine if R&R opportunities will be given for any minor assessment.

Tutoring

Tutoring is available as needed by appointment only. Please contact teacher if you are interested.

Disclaimer

The teacher reserves the right to edit this document at any time and will promptly notify students and parents if there are any changes related to disciplinary action or general course expectations.