

# Physics Options for Our Students at Eastview High School 😊

We now have 3 options for students to take for their physics course. All 3 options will prepare them for college.

*The differences are the level at which they are taught and the level of mathematics used in each course. If a student is struggling to try to figure out which course to take, feel free to have them come and see me in B122 or the B1 office. I can talk to him or her for 2 minutes I will be able to give them good advice on which of the 3 courses would probably be the best fit. 😊*  
Julie Geiselhart

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**Option 1:** We offer regular **Physics**. Students who are taking this course should have had a full year of chemistry and have completed a full year of Algebra 2 with a C or better, although a few students will take this concurrently with Algebra 2.

**Topics covered:** Kinematics, Newton's Laws, Projectile Motion, Work and Energy, Momentum and Collisions, Periodic Motion and Gravity, Waves and Sound, Mirrors and Lenses, and Electricity. There are many hands-on activities and a music video project embedded in the course.

**Resources:** This course uses the Glencoe **Principles and Problems** text. Mrs. Geiselhart has taught this course for 20 years. She has a very detailed web site with what she does every day. It is algebra-based and prepares you for college. Here is Ms. Geiselhart's web site for this course: [goo.gl/yr2c8k](http://goo.gl/yr2c8k) Mrs. Benedict has taught this course for 8 years and also runs a detailed web site. Students have a lot of class time to get their questions answered and will have a good experience in the course. We work very hard to make it fun and educational!

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**Option 2: New! option started in 2016-2017:** We now offer **AP Physics 1**, which is the **algebra-based** AP Physics. This is like an **Honors Physics** course but is not called honors. AP Physics was restructured in 2014, so this course was **new to the country in 2014**. This is the algebra-based physics that is taught at a higher level than Physics. Students can take this course if they are registered for pre-calculus, honors pre-calculus, AP stats, or any Calculus for their senior year. If a student does not do well in algebra, this is not the course for him or her.

**Topics covered:** Kinematics, Newton's Laws, Circular Motion and Gravity, Linear Momentum, Work and Energy, Rotational Motion, Simple Harmonic Motion, Waves and Sound, Electrostatics and Electricity. The material is covered more rapidly and students are expected to do some learning on their own. The problems are more involved, and the experiments are often inquiry-based requiring more independent thinking. There is more emphasis on laboratory work and the students prepare all year to take the AP Physics 1 test in early May.

**Who teaches the course:** Mrs. Geiselhart taught this in 2016-2017. Here is Ms. Geiselhart's web site for this course: [goo.gl/yr2c8k](http://goo.gl/yr2c8k)

**Resources:** We use the Etkina **College Physics** text. Here is the link from the college board about what will be covered in the AP Physics 1 course: <https://apstudent.collegeboard.org/apcourse/ap-physics-1>

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**Option 3:** We also offer **AP Physics C** which is **the calculus-based** physics. If the student is considering a math-related or engineering field and/or is currently enrolled in a calculus course, this course is most likely the best option. It prepares students for the AP Physics C exam which is in early May.

**Topics covered:** Kinematics, Newton's Laws of Motion, Work, Energy and Power, Systems of Particles and Linear Momentum, Circular Motion and Rotation, Oscillations and Gravitation

**Who teaches the course:** Mark Tollefson has taught this course for many years.

**Resources:** This course uses the Giancoli **Physics for Scientists and Engineers**. Here is the link from the college board about what will be covered in the AP Physics C course: [http://apcentral.collegeboard.com/apc/public/courses/teachers\\_corner/2264.html?excmpid=MTG243-PR-34-cd](http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2264.html?excmpid=MTG243-PR-34-cd)

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