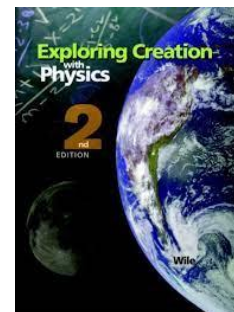




# PIONEERS Co-Op

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## Overview of PHYSICS (Grades 10-12)



**Tutor:** Mrs. Joellen McAninch  
734-344-1168 (cell)  
jomcaninch@att.net

### Required Text:

- **Exploring Creation with Physics** by Dr. Jay Wile PhD. published by Apologia Educational Ministries, Inc. (ISBN: 978-1-932012-42-2)
- **Solutions & Tests** (ISBN: 978-1-932012-43-9)

**Prerequisite:** Comfortable with algebra and basic trig. functions (sine, cosine, tangent).

**Supplies:** Scientific calculator (eg. TI-30Xa)



**Lab Fee:** \$5.00 each semester

### Student Evaluation:

	<u>% of semester grade</u>
Homework	40%
Quizzes	10%
Labs	20%
Semester Exam	30%

### Grading Scale

90-100%	=A
80-89%	=B
70-79%	=C
60-69%	=D
Less than 60%	=F

### Course Description:

This is an upper-level high school class with an emphasis on theory and applications which includes some lab work. Students can use this as either a science or math credit.

There will be weekly reading assignments and application problems. Most class time will be spent in lecture, discussion, and working example problems. Some of the concepts to be studied include:

- Measurements and units with significant figures
- One-dimensional motion equation and free fall
- Displacement, velocity, acceleration, and time
- Two-dimensional motion
- Newton's Laws and Applications of Newton's Laws
- Work and energy
- Momentum
- Periodic motion
- Waves and optics
- Electrostatics
- Electricity and Magnetism