Classes by Kendra Wineman

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Personal History

I credit my parents and grandparents for leading me to become a Christian at an early age. After I attended public schools for eight years, my mom and stepdad began homeschooling me in 8th grade and continued through high school. After graduation, I attended Grand Rapids Community College and then transferred to Grand Valley State University, where I served as vice president of the GVSU Physics & Astronomy Club and earned my Bachelor of Science degree in physics, with a minor in math.
In addition to tutoring with the PTC, I also enjoy working part time as a receptionist at a local retirement home and in my stepdad's law firm. My husband and I live in Cedar Springs with our almost-three-year-old daughter. I love to read, garden, and spend time with family and friends.

Algebra 1

Algebra is an extremely versatile subject that has a multitude of practical and educational applications. In this class, students will learn about integers; real numbers; solving equations and inequalities; relations; functions; graphs; systems of equations and inequalities; polynomials and factoring; radicals; quadratic equations and functions; and rational expressions and equations. Algebra and the Bible, practical applications of algebra, and probability and statistics are woven through each chapter.

We will be using the 2nd edition of the BJU Press Algebra 1 Student Text, by Kathy Pilger (ISBN: 978-1-59166-643-1). A scientific calculator and general school supplies are required.

Prerequisite: Algebra 1 requires the student to already be familiar with the properties of addition, subtraction, multiplication, and division; order of operations; decimals; fractions; ratios; percentages; factors and multiples; graphs; addition, subtraction, multiplication, and division of integers and rational numbers; square roots; and basic area and volume. A pre-algebra class is strongly recommended before enrolling in Algebra 1. Algebra 1 is typically taken in 9th grade.

Geometry

Students will learn about incidence geometry; subsets of lines, planes, and space; segments, angles, and measurement; proofs; congruence; triangles; quadrilaterals; circles; area; space; volume; symmetry, transformations, and similarity. Students will also be introduced to basic trigonometry. Each chapter emphasizes geometry and the Bible, analytic geometry, and real life uses for geometry.

We will be using the 3rd edition of the BJU Press Geometry Student Text, by Ron Tagliapietra (ISBN: 978-1-59166-347-8). A scientific calculator, protractor, ruler, compass, and general school supplies are also required.

Prerequisite: successful completion of Algebra 1. Geometry is typically taken in 10th grade.

Algebra 2

Students will build on their Algebra 1 skills to learn more about operations; linear relations and equations; quadratic equations; polynomials; systems of equations and inequalities; radicals; complex numbers; rational expressions and equations; trigonometry, trig identities, and inverse trig functions; probabilities and statistics; and analytical geometry. Each chapter includes a biblical emphasis and a brief discussion of linear algebra, along with special sections discussing algebra throughout history and in foreign countries.

We will be using the 2nd edition of the BJU Press Algebra 2 Student Text, by Kathy Pilger (ISBN: 978-1-57924-385-2). A graphing calculator and general school supplies are required.

Prerequisites: Successful completion of Algebra 1 and Geometry. Algebra 2 is typically taken in 11th or 12th grade.

Physics

This class is intended to give students a strong understanding of the basic principles of physics. It will lay a sound foundation for those pursuing college physics courses while giving students not planning on further physics study an overview of the essentials. Topics include proper notation, one-dimensional motion and free fall, two-dimensional motion and vectors, Newton's laws, uniform circular motion, gravity, work and energy, momentum, periodic motion, waves, geometric optics, Coulomb's law, the electric field, electric potential, electric circuits, and magnetism.

We will be using Exploring Creation with Physics, 2nd Edition, by Jay L. Wile (ISBN: 1932012427). Other Supplies: A scientific calculator, protactor, and ruler with both inches and centimeters are necessary. A lined composition notebook (not spiral bound) and ink pen for recording labs, graph paper and general school supplies are also needed.

Prerequisites: Successful completion of Algebra I and Geometry; Trigonometry and Algebra 2 are very helpful but not required.