

# 9<sup>th</sup> Grade Curriculum

## **Physical Science:**

Physical Science is a study of matter and energy that includes an introduction to physics and chemistry. Students will gain a better understanding by investigating topics of motion, acceleration, momentum, work, simple machines, classification, atomic structure, chemical bonding and reactions, waves, electricity, and energy resources. Principles studied will be supported through lab investigations following lab safety instruction.

## **Algebra II:**

This discipline complements and expands the mathematical content and concepts of Algebra I. Students who master Algebra II will gain experience with algebraic solutions of problems in various content areas, including the solution of systems of quadratic equations, logarithmic and exponential functions, the binomial theorem, and the complex number system. Prerequisite: Algebra I.

OR

## **Advanced Algebra II:**

Algebra II Honors Math is a one-year course. Included in this will be a brief review of Algebra I and fundamental concepts of the real number system. Much time will be spent in areas of trigonometry, analytical geometry, and logarithms preparing the student for calculus. Other topics will include functions, polynomials, sequences, systems of equations, matrices, counting principles, and probability.

## **9th Grade English – World Literature:**

This course is designed to introduce freshman students to the history of literature through a chronological study to 1900. Pieces of literature will be chosen from different areas of the world, making this a comprehensive study of literature and non-fiction. Students will read poetry, novels, plays, and short stories. This course will also focus on a comprehensive study of grammar and writing.

OR

## **9th Grade Advanced English – World Literature:**

This course is designed to introduce freshman students to the history of literature through a chronological study to 1900. Pieces of literature will be chosen from different areas of the world, making this a comprehensive study of literature and non-fiction. This course will also focus on a comprehensive study of grammar and writing. As an advanced course, it will move at a quicker pace and will involve more independent reading and writing, as well as in-class timed writing assignments. Additionally, grading will be based on a higher standard. Acceptance into this course will be based on ITBS scores, 8th grade English grades, and teacher recommendation. This class is a precursor for Advanced English 10 and the Advanced Placement courses in junior and senior years.

**World History:**

Freshmen will study the history of the world from ancient civilizations to modern times. Students will be responsible for daily text readings and learning the geography of the regions being studied. Additionally, students will be expected to select articles from various media that relate current world events to those regions and the history covered in the text.

**Art:**

A general class designed to introduce the student to a variety of art materials, mediums, and art styles. Work will be turned in weekly and grades are given for neatness and understanding of project concept. Students are not graded solely on their artistic talent.

**Choraliers:**

This choir represents the top vocalists at FRA. The course will focus on sight-reading, the St Olaf style of choral tone production, melodic intonation vs. harmonic intonation, and advanced vocal techniques as demonstrated in traditional genres seen throughout the western European history. Students will also learn harmonic theory, Latin musical terms, and world music history. Performing is required. Performances may include nursing homes, a Christmas concert, church visits, literary competition, and a spring concert. Prerequisite—prior vocal experience.

**Technology:**

The goal of this required course is to provide 9th grade students with a working understanding of communication tools, research techniques, terminology, and technology. The impact of technology and communications will be explored from a personal, academic, and professional perspective. Competency will be developed in the areas of oral and written communications, interpersonal skills, and the use of technology in the academic setting. Students will explore the legal, moral, and ethical implications of technological connectivity. Assignments will frequently link to requirements in Science, English, and History. Students will complete presentations, research, papers, current events, and programming.

**Physical Education and Health:**

This required course introduces concepts for personal development in health-related fitness and physical skills. These skills include cardiovascular exercise, body composition, strength, endurance, and flexibility which will be the basis for the four-year physical education program. Students will develop physical and health related fitness skills through participation in individual, field activities and health education. Grading is based on daily dress-out and participation.

**Weight Training & Conditioning Education:**

This class is designed for the student who enjoys physical activity and wishes to increase their strength and overall fitness. The student will be expected to understand and practice a certain level of knowledge of the body, kinesiology, exercise physiology and nutrition. Grading is based upon daily dress-out and participation. Prerequisite: 9th grade PE/Health.