



2010 SUMMER SCHOOL

Academic Session I – June 14 to July 16

Academic Session II – July 19 to August 20

- During each 5-week session, a high school student will earn one full-year credit in one subject.
- Each class will meet from 1:00 pm – 5:00 pm each day, five days per week for five weeks.
- Students may not miss a day of school as each day equals a week of instruction during the regular academic year.
- There will be some time to do homework during each class day.
- We will have Directed Learning for 90 minutes Monday - Thursday nights.
- Parents will receive weekly updates on student progress.
- The Learning Resource Center will be open in the evening Monday – Thursday, and limited help will be available between 1:00 pm – 5:00 pm Monday - Friday.
- Parents should consult with their child's school to make sure the class credit will be accepted.
- Course descriptions are available.

Geometry **1.0 Credit** **9-10**

Prerequisite: Successful completion of Algebra I.

Geometry utilizes the basic Euclidean concepts of point, line, plane to build a logical science that includes the study of angles, triangles, quadrilaterals and other polygons, circles and solids. Many lessons are designed as a learning activity incorporating various types of reasoning skills--intuitive, inductive, and deductive. Proofs are presented to formalize the deductive learning techniques. Opportunities for the student to use algebra skills in relationship to various geometric theorems and principles are abundant. Integration of geometry with other sciences and studies, such as architecture, engineering, physics, and the like, are included throughout the year.

Algebra II **1.0 Credit** **10-12**

Prerequisite: Successful completion of Geometry.

Algebra II prepares students to use advanced algebra skills and concepts. The flexibility of the program provides teachers with a variety of approaches to make algebra work. This course actively involves students in their learning to develop their mathematical power through problem-solving strategies, cooperative learning projects and critical thinking and reasoning activities. Manipulatives and technology are used to help students explore and develop concepts, which help to connect algebra to everyday life.

Pre-Calculus **1.0 Credit** **11-12**

Prerequisite: Successful completion of Algebra II.

Pre-Calculus is an advanced course that begins with a review of linear and quadratic equations, inequalities, systems and graphs, functions and relations. Polynomial, rational, exponential, and logarithmic functions are reviewed and expanded upon. Topics also include an in-depth study of trigonometric and inverse trigonometric functions, polar coordinates, and complex numbers, finite and infinite sequences and series plus probability.

SCIENCE

Biology **1.0 Credit** **9**

Biology is the study of life, its characteristics, evolution, and environment. This course stresses critical thinking, problem solving and laboratory investigation. Course concentration areas will include introductory biochemistry, cellular structure, and function at the molecular level, physiology, genetics, and ecology. Additional areas of study will include zoology, botany, evolution theory, and classification. An emphasis will be placed on personal organization, plus cooperative and independent learning activities. Classroom discussions, lectures, labs, and assigned projects are integrated into the course to provide a broad spectrum of learning opportunities.

Chemistry **1.0 Credit** **10**

Chemistry is a science course with a balance of qualitative and quantitative work. The qualitative includes verbal and written communication of facts, ideas, concepts, and findings. The use of appropriate language is stressed. The quantitative work involves measurement, graphical analysis, and mathematical problem solving. These aspects are supported by hands-on student activities that emphasize the scientific process. Applications and societal implications ensure that chemistry is perceived to be relevant to everyday life.

Physics **1.0 Credit** **11-12**

Prerequisite: Successful completion of Biology and Chemistry.

The goal of Physics is to help students develop higher order thinking skills through problem solving and analysis of common situations. Students will learn to make a connection between the concrete world around them and the world of physics. The course introduces fundamental topics in classical physics and introduces modern physics. The major areas of physics that are covered are measurement, mechanics, waves, optics, electricity, magnetism, and atomic physics.

SOCIAL SCIENCES

World Geography

1.0 Credit

9

World Geography allows students to identify and explore the countries of the world. The main classifications throughout this course rely heavily on the themes of creation, people, place, region, and human environment interaction. The focus of these themes is incorporated into the understanding of the world and its people.

World History

1.0 Credit

10

This historical survey course examines the development of civilization through modern civilization. The students will cover material from the Old Stone Age to present-day occurrences including ancient civilizations, Enlightenment, Industrial Revolution, French Revolution, World War I and II, Russian Revolution and the Korean and Vietnam Wars. Students will appreciate the diversity in varying world cultures and understand that countries reflect their historical roots and geographic location. The course's emphasis is on a thematic understanding of world history and culture and its influence on the history of human progression through the present.

American History

1.0 Credit

11

Students will survey United States history by themes from its discovery to the present day. This course will explain the relationship between the past and present situation of the United States. The focus is on interpreting sources and evidence of historical events, along with understanding the cause and effect relationships that exist between events, people, and the growth of the United States.

Economics /American Government

1.0 Credit

9-12

Economics

Economics is an introductory immersion into how individuals and nations make choices regarding the effective use of scarce resources. This course teaches students to apply basic principles and theories to practical simulations and real-life case studies to make the study of economics exciting and applicable. The program focuses on business practices and allows students to gain insight into cultural differences, language barriers, and communication possibilities of the global market.

American Government

United States Government introduces students to the world of politics, government, and legislation. Students learn about the origins of government as well as the foundations for the U.S. government. This course also addresses how a vague document, the Constitution, has been able to be the foundation for the U.S. government for over 200 years.