SCIENCE CLASSES :

Chemistry (full year) – An introduction to the fundamentals of Chemistry including the properties of matter, atomic structure, chemical bonding and periodic chart arrangement.

Physics (full year) – A fundamental introduction to the field of physics. Periods are devoted to class and laboratory work. In the classroom, theoretical and mathematical consideration of natural laws and the relationship of matter and energy, force and motion, heat, light, and sound. Laboratory activities are used to reinforce the theoretical concepts and how they may be used to predict the behavior of matter.

Anatomy (full year) – Introduction to the concepts of anatomy and physiology including the nervous, muscular, skeletal, circulatory, respiratory, digestive, endocrine, integument, and reproductive systems. Emphasis is on structure and function of systems with lab applications.

Advanced Integrated Science (full year) – Explores concepts from the physical sciences. This course reviews the basics of the atom, radioactivity, energy, and electricity. Other topics included are magnetism, mechanical waves and sound, the electromagnetic spectrum, force and motion. Scientists that have influenced the physical sciences are also investigated. The concepts from each unit are reinforced with hands-on lab activities, video clips, research, and/or computer activities.

STEM Science (full year) - The STEM acronym stands for science, technology, engineering, and mathematics. All of these academic disciplines rely heavily on each other, and are highly integrated in the professional and academic world. This course is intended to integrate the STEM fields through experimental based learning. Students will be engaged by frequent hands-on activities geared towards combining each of the STEM disciplines. Creativity and collaboration will be encouraged as students solve problems. The class is divided into three main units: Data Analysis and Structures, Robotic Programming and Operation, and Forensic Analysis. Each unit will have an instructional component, laboratory component, and project(s) component. During projects, students will be presented with a challenge or engineering based problem. During the projects they must draw upon their knowledge of the scientific method and STEM disciplines, collaborate with peers, and apply their own creative process to find solutions to the problem. An emphasis will be placed on data collection, analysis and Programming.

UAS Pilot License - FAA Part 107 An introduction to aviation. Basic hands on UAS flight experience. FAA Part 107 rules and regulations. Airspace classification system and Sectional Chart Reading. Airport operations and radio communications. Team management and physiological factors. Weather reporting and weather in aviation. The physics of flight. Maintenance, pre-flight and emergency procedures. Manual and autonomous mission planning. Basic mapping and photometry.

MATH CLASSES :

Financial Algebra (full year) – A mathematical modeling course that is algebra-based, applications-oriented, and technology-dependent. The mathematics topics contained in this course are introduced, developed, and applied in an as-needed format in the financial settings covered. Topics covered include Banking, Investing, Credit, Employment and Income Taxes, Automobile Ownership, Independent Living, and Retirement Planning and Household Budgeting. The course addresses college preparatory mathematics topics from Advanced Algebra, Statistics, and Probability under seven financial umbrellas: Banking, Investing, Credit, Employment and Income Taxes, Automobile Ownership, Independent Living, and Retirement Planning and Household Budgeting. Students are encouraged to use a variety of problem-solving skills and strategies in real-world contexts, and to question outcomes using mathematical analysis and data to support their findings. The course offers students multiple opportunities to use, construct, question, model, and interpret financial situations through symbolic algebraic representations, graphical representations, geometric representations, and verbal representations.

Algebra II (full year) – Algebra II is an in-depth study of Algebra topics including equations, inequalities, matrices, probability, statistics, functions, complex factoring, exponents, logarithms, quadratics, variation, analytic geometry, complex numbers, sequence and series.

Integrated 3 (full year) – Integrated 3 is a course designed to extend Algebra 1 knowledge. It is part 1 of a 2 year course that focuses on the first half of Algebra 2 content including polynomials, quadratics, rational functions, and exponential functions. Students that take Integrated 3 must then take Integrated 4 as a senior in order to count as Algebra 2 credit.

Integrated 4 (full year) – Integrated 4 is a course designed to extend Integrated 3 knowledge. It is part 2 of a 2 year course that focuses on the second half of Algebra 2 content , such as probability, statistics, exponents, logarithms, analytic geometry , complex numbers, sequence and series. In this course, problem based learning of mathematics in real life applications is emphasized. Students will gather and analyze data in order to build, use, and evaluate mathematical models of real situations and phenomena.

Pre-Calculus (full year) – The objective of this course is to advance Algebra II one step further into the area of coordinate systems, conic sections, polar coordinates, polynomial functions, trigonometry, probability, and elementary calculus. This course is designed to prepare students for Calculus.

College Algebra / Trigonometry (full year) – The objective of this course is to learn the basic properties of trigonometric, exponential, and logarithmic functions. This will also advance Algebra II in the area of coordinate systems, conic sections, polar coordinates, polynomial functions, probability and elementary Calculus.

Geometry (full year) – Topics include inductive reasoning, geometric constructions, area, volume, congruence, similarity, trigonometry, and proof.

SOCIAL STUDIES CLASSES:

American Military History (full year) – This course will trace the evolution of the art war from the American Revolution to the current war on terrorism. Emphasis is placed on the changing nature of warfare as nations adjust to social, political, economic and technological developments. Discussion of all of America's wars with emphasis on the American Revolution, Civil War, World War 1, World War 2, Korea, Vietnam, Gulf War, and the current war of terrorism in the middle east.

Psychology (full year) – Psychology studies human behavior and mental processes. Through the study of Psychology, students will be better prepared to understand their own behavior and behavior of others. The class will also introduce students to the subject of law and the role law plays in everyday life. It is hoped that this class will assist students in dealing with legal situations in the future, and avoiding decisions that are made without knowledge of the law.

Elective Classes :

Vision & Career Choices (VCC) (full year) – This class is a basic life skills class that will talk about money management, relationship issues, problem solving techniques, etiquette, health habits and many other topics related to everyday living.