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| |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | Top of Form  http://www.edline.net/images/transparent.gif  Course Descriptions   |  | | --- | | **712 Biology**  *Grade Level: 9 Credit: 1 Required)* This course covers biological concepts such as scientific attitude, scientific inquiry, organization of living systems, interdependence of living systems, cell structure and function, genetics, evolution, biodiversity, and ecology. Laboratory investigations, dissections, and cooperative learning in groups are an integral part of this course.   **714 Honors Biology** *Grade Level: 9 Credit: 1 Prerequisites: Score in top percentile (10%) on HSPT Science, Math and Cognitive skills. Must meet all criteria and scoring requirements.* This course offers a detailed study of scientific attitude, cells, formation of life, genetics, and evolution at an accelerated pace. Material studied, assignments, and assessments require higher level thinking skills. Scientific research, investigations, and dissections are an integral part of this course.   **748 Honors Coordinated Science**  *Grade Level: 10 Credit: 1*  *Prerequisites: 95 in Honors Biology or 98 in Biology, and 98 in Algebra I or 95 in Honors Algebra I. Must meet all criteria.* This course focuses on three primary science topics: Chemistry, Physics, and Earth science. The course is inquiry-based challenging students to solve real-life problems through experimentations and hands-on activities. Topics include: chemical reactions, characteristics of matter, transfer of energy, atomic structure, Newton's laws, interactive forces, magnetism, sound, electricity, atmosphere, geology, and other current Earth science topics. The honors course will incorporate journals, portfolios, experiment logs, and other year long assessments.  **746 Coordinated Science**  *Grade Level: 10 Credit: 1*  *Prerequisites: Completed Biology and Algebra I.* This course focuses on three primary science topics: Chemistry, Physics, and Earth science. The course is inquiry-based challenging students to solve real-life problems through experimentations and hands-on activities. Topics include: chemical reactions, characteristics of matter, transfer of energy, atomic structure, Newton's laws, interactive forces, magnetism, sound, electricity, atmosphere, geology, and other current Earth science topics.  **732 Human Anatomy & Physiology**  *Grade Level: 11-12 Credit: 1**Prerequisites: 90 in Biology, 90 in Coordinated Science and a 90 in Chemistry. Must meet all criteria.* This course focuses on human anatomy (structure) and physiology (function). This course offers detailed study of biochemistry, cells, tissues, organs, organ systems, and the functions of each. Labs will give a practical, hands on experience, to include fetal pig dissection. Each chapter will also include a focus on wellness, relating topics to health and medicine. This course is designed for highly motivated students interested in pursuing careers in the Health Sciences, Nursing, Pre-Med, Pre-Dentistryry, or other Life Science fields of study.  **734 Honors Human Anatomy & Physiology** *Grade Level: 11-12 Credit: 1 Prerequisites: 95 in Honors Biology or 98 in Biology and 98 in Chemistry or 95 in Honors Chemistry. (If taking junior year must have an 95 in Honors Coordinated Science or 95 in Coordinated Science). Must have 95 in Algebra and Geometry. Must meet all criteria.*  This is an honors level course focusing on human anatomy and physiology. Practical labs and medical concepts will be discussed. Fetal pig dissection and simulated human dissection will be incorporated in the last quarter. Bimonthly reports, critical writing, medicinal (pharmacological) concepts, and practical laboratory experiments are an integral part of this course. This course is designed for highly motivated students interested in pursuing careers in the Health Sciences, Nursing, Pre-Med, Pre-Dentistry, or other Life Science fields of study.  **722 Chemistry** *Grade Level: 11 Credit: 1 Prerequisites: (Required) All Juniors take this course.* This course deals with the major, theoretical generalizations that describe the composition, structure, properties, interactions, interaction mechanisms, and preparations of matter. Topics include: matter and change, the organization of matter, the language of chemistry, phases of matter, solutions, chemical reactions and an introduction to organic chemistry. This course makes extensive use of mathematics and laboratory exercises. It is intended for those students who are college bound and who may pursue a career in science.  **724 Honors Chemistry** *Grade Level: 11 Credit: 1 Prerequisites: Minimum 95 average in Honors Geometry and 95 in Honors Algebra II, and an 95 in Honors Coordinated science or 98 in Coordinated Science. Must meet all criteria.* Honors Chemistry is a rigorous approach to chemistry that is intended for highly motivated college bound students who have a strong math background. Topics covered include: atoms, subatomic particles and their arrangement, the periodic table, bonding, chemical reactions and stoichiometry, Kinetic Molecular Theory and the gas laws, solutions and solubility, product constant equilibrium, and acid-base reactions. Extensive use is made of laboratory experiences. This is a fast paced course which requires students to have strong study skills, testing skills and independent learning skills.  **730 Physics**  *Grade Level: 11 – 12 Credit: 1 Prerequisites: Completion of Geometry with a 87 or better, and co enrollment in Algebra II. Must meet all criteria.* This course is designed to offer a basic foundation in classical theoretical physics. It is important in future course work in engineering and other science related fields. Physics deals with the inter-relationships between matter, energy, and force. Mechanics, dynamics, and statics are covered in great depth. Subsequent topics include: wave properties, thermodynamics, sound, and optics. Mathematics and laboratory experiments are an integral part of this course.   **736 Honors Physics***Grade Level: 12 Credit: 1 Prerequisites: 95 in Algebra II or an 93 in Honors Algebra II. (Co-enrollment Pre-Calculus or higher math course). Must meet all criteria.*  This course is designed to offer a basic foundation in classical theoretical physics. It is important in future course work in engineering and other science related fields. Physics deals with the inter-relationships between matter, energy, and force. Mechanics, dynamics, and statics are covered in great depth. Subsequent topics include: wave properties, thermodynamics, sound, and optics. Mathematics and laboratory experiments are an integral part of this course. This is a fast paced course which requires students to have strong study skills, testing skills, and independent learning skills. |   Bottom of Form  Top of Form    Bottom of Form | | | |