# SCHOOL OF DREAMS ACADEMY

COURSE CATALOG-2019

Pathway to College and Workforce Readiness…

The School of Dreams Academy is a public charter school that allows students least likely to attend college an opportunity to earn a high school diploma and 60 college credit hours at no cost to students.

SEE DUAL CREDIT COURSE CATALOG FOR UNM/VALENCIA

# English Language Arts

## ENGLISH LANGUAGE ARTS 9

This freshman-year English course engages students in literary analysis and inferential evaluation of great texts both classic and contemporary. While critically reading fiction, poetry, drama, and literary nonfiction, students will master comprehension and literary-analysis strategies, interwoven in the lessons across two semesters are activities that encourage students to strengthen their oral language skills and produce clear, coherent writing. Students will read a range of classic texts including Homer's The Odyssey, Shakespeare's Romeo and Juliet, and Richard Connell's "The Most Dangerous Game." They will also study short but complex texts, including influential speeches by Dr. Martin Luther King Jr., Franklin D. Roosevelt, and Ronald Reagan. Contemporary texts by Richard Preston, Julia Alvarez, and Maya Angelou round out the course.

## ENGLISH LANGUAGE ARTS 10

Focused on application, this sophomore English course reinforces literary analysis and twenty-first century skills with superb pieces of literature and literary nonfiction, application e-resources, and educational interactives. Each thematic unit focuses on specific literary analysis skills and allows students to apply them to a range of genres and text structures. As these units meld modeling and application, they also expand on training in media literacy, twenty-first century career skills, and the essentials of grammar and vocabulary. Under the guidance of the eWriting software, students also compose descriptive, persuasive, expository, literary analysis, research, narrative, and compare-contrast essays.

## ENGLISH LANGUAGE ARTS 11

This junior-year English course invites students to delve into American literature from early American Indian voices through contemporary works. Students engage in literary analysis and inferential evaluation of great texts as the centerpieces of this course. While critically reading fiction, poetry, drama, and expository nonfiction, students master comprehension and literary analysis strategies. Interwoven the lessons across two semesters are tasks that encourage students to strengthen their oral language skills and produce creative coherent writing. Students read a range of short but complex texts, including works by Ralph Waldo Emerson, Emily Dickinson, Herman Melville, Nathaniel Hawthorne, Paul Laurence Dunbar, Martin Luther King, Jr., F. Scott Fitzgerald, Sandra Cisneros, Amy Tan, and Dave Eggers.

## ENGLISH LANGUAGE ARTS 12

This senior-level English course offers fascinating insight into British literary traditions spanning from Anglo-Saxon writing to the modern period. With interactive introductions and historical contexts, this full-year course connects philosophical, political, religious, ethical, and social influences of each time period to the works of many notable authors, including Chaucer, William Shakespeare, Queen Elizabeth 1, Elizabeth Barrett Browning, and Virginia Woolf. Adding an extra dimension to the British literary experience, this course also exposes students to world literature, including works from India, Europe, China, and Spain.

# Mathematics

## ALGEBRA I

This full-year course focuses on five critical areas: relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. This course builds on the foundation set in middle grades by deepening students' understanding of linear and exponential functions and developing fluency in writing and solving one-variable equations and inequalities. Students will interpret, analyze, compare, and contrast functions that are represented numerically, tabularly, graphically, and algebraically, Quantitative reasoning is a common thread throughout the course as students use algebra to represent quantities and the relationships among those quantities in a variety of ways. Standards of mathematical practice and process are embedded throughout the course, as students make sense of problem situations, solve novel problems, reason abstractly, and think critically.

## GEOMETRY

This course formalizes what students learned about geometry in the middle grades with a focus on reasoning and making mathematical arguments. Mathematical reasoning is introduced with a study of triangle congruency, including exposure to formal proofs and geometric constructions. Then students extend what they have learned to other essential triangle concepts, including similarity, right-triangle trigonometry, and the laws of sines and cosines. Moving on to other shapes, students justify and derive various formulas for circumference, anrea, and volume, as well as croo-sections of solids and rotations of two-dimensional objects. Students then make important connections between geometry and algebra, including special triangles, slopes of parallel and perpendicular lines, and parabolas in the coordinate plane, before delving into an in-depth investigation of the geometry of circles. The course closes with a study of set theory and probability, as students apply theoretical and experimental probability to make decisions informed by data analysis.

## ALGEBRA II

This course focuses on functions, polynomials, periodic phenomena, and collecting and analyzing data. The course begins with a review of linear and quadratic functions to solidify a foundation for learning these new functions. Students make connections between verbal, numeric, algebraic, and graphical representations of functions and apply this knowledge as the create equations and inequities that can be used to model and solve mathematical and real-world problems. As students refine and expand their algebraic skills, they will draw analogies among the operations and field properties of real numbers and those of complex numbers and algebraic expressions. Mathematical practices and habits of mind are embedded throughout the course, as students solve novel problems, reason abstractly, and think critically.

## FINANCIAL LITERACY

In this course, students will connect practical mathematical concepts to a personal and business setting in order to gain a deeper understanding of financial math. Relevant, project-based learning activities will be implemented cover stimulating topics such as personal financial planning, budgeting, wise spending, banking, paying taxes, insurance, long-term investing, buying a car, buying a house, consumer loans, consumer debt, traveling abroad, starting a business, and economic principles. This course encourages mastery of math skill sets, including percentages, proportions, data analysis, linear systems, and exponential functions.

# Science

## PHYSICAL SCIENCE

This full-year course focuses on basic concepts in chemistry and physics and encourages exploration of new discoveries in the field of physical science. The course includes an overview of scientific principles and procedures and has students examine the chemical building blocks of our physical science. The course includes an overview of scientific principles and procedures and has students examine the chemical building blocks of our physical world and the composition of matter. Additionally, students explore the properties that affect motion, forces, and energy on Earth. Building on these concepts, the course covers the properties of electricity and magnetism and the effects of these phenomena. As students refine and expand their understanding of physical science, they will apply their knowledge to complete interactive virtual labs that require them to ask questions and create hypothesis. Hands-on wet lab options are also available.

## BIOLOGY

This compelling two-semester course engages students in the study of life and living organisms and examines biology and biochemistry in the real world. This is a yearlong course that encompasses traditional concepts in biology and encourages exploration of new discoveries in this field of science. The components include biochemistry, cell biology, cell processes, heredity and reproduction, the evolution of life, taxonomy, human body systems, and ecology. This course includes both hands-on wet labs and virtual lab options.

## BOTANY

This is a full year, lab science. The focus is on the science of plants, photosynthesis and respiration, analysis of the difference between plant and animal cell structure, genetics, taxonomy, classification, and native New Mexico plants. Also included are topics covering entomology, soil chemistry, and plant diseases; virus and bacterial effects on plants. The focus will be on horticultural crops including greenhouse, landscape, and floral plant.

## PHYSICS

This full-year course acquaints students with topics in classical and modern physics. The course emphasizes conceptual understanding of basic physics principles, including Newtonian mechanics, energy, thermodynamics, waves, electricity, magnetism, and nuclear and modern physics. Throughout the course, students solve mathematical problems, reason abstractly, and learn to think critically about the physical world. The course also includes interactive virtual labs and hands-on lab options, in which students ask questions and create hypotheses.

## EXPLORATORY SCICENCE TO AGRICULTURE (MS)

Surveys a wide array of topics within the agricultural industry, exposing students to the many and varied types of agricultural career opportunities and to those in related fields. As the name implies, these courses serve simply to introduce the agricultural field, providing students the opportunity to identify and focus for continued study. Primarily designed for seventh and/or eighth grade. This is a year-long course.

## INTRODUCTION TO AGRICULTURE (HS)

The local, national, and global definitions, history, and scope of agriculture in society is covered in this course. It also covers plant and animal sciences, production and processing; agricultural mechanics, including tool and machine operation business and natural resource management; management of food and fiber systems; soil characteristics, formation and properties; and development of leadership and communication skills. This is a year-long course.

# Science

## ANIMAL SCIENCE (HS)

Prerequisite course of Introduction to Agriculture required or can be taken with three high school science classes. Course imparts information about the care and management of domesticated animals. Animal nutrition, health, reproduction, genetics, facilities, and marketing are all possible topics; Study of anatomy and physiology of livestock and other domesticated animals. Examination of developmental stages and analysis of feed ration for different parts of an animal's life cycle. Identification of environmental factors that affect an animal's performance, and recognition of animal behaviors to facilitate working with animals safely. This is a year-long course.

## WILDFIRE AND FORESTRY (HS)

Prerequisite course of Introduction to Agriculture required course provides the information necessary for the cultivation and care of forests or timberlands. Forestry topics covered are the processes or regeneration and reforestation, conversation of natural resources, erosion control, trail development and maintenance, mapping and surveying, operation of forestry tools, government regulations, and recreational uses. Wildlife topics include land and ecological systems that enable non-domesticated animals to thrive. Emphasize on how humans and animals may both take advantage of the same land, how to gain economic benefits from the land while not degrading its natural resources or depleting the plant and animal populations. This is a year-long course.

## AGRICULTURE MECHANICS (HS)

Prerequisite course of Introduction to Agriculture required course provides for the skill and knowledge development applicable to the tools and equipment used in the agricultural industry. In learning to apply basic industrial knowledge and skills (engines, power, welding and carpentry) a broad range of topics may be explored, including the operation, mechanics, and care of tools and machines; the construction and repair of structures; introduction to electricity and power. Procedures for safe operations in the agricultural mechanics laboratory are included in this course. This is a year-long course.

## MIDDLE SCHOOL PRE-ENGINEERING

This introductory course provides students with the opportunity to develop and use models; analyze and interpret data; use mathematics; design solutions, and obtain, evaluate, and communicate information. Students will understand the role of engineering design, materials, tools, and manufacturing have in the natural and designed world. Students will research and analyze specific design solutions that give them an natural and designed world. Students will research and analyze specific design solutions that give them an opportunity to determine the optimal conditions for performance of materials, influences of cost, constraints, criteria, and possible environmental impacts. Use of mathematics is a key skill in designing prototypes to scale, using prototypes to scale, using prototypes or simulations that model multiple interactions in a complex problem and calculating change to a system that includes a number of variables. Students will be expected to communicated and evaluate solutions to real-world problems, propose or refine solutions, and examine the social and cultural impacts a product, material, manufacturing process, or technology could have in our world. Year-long course.

# Science

## HIGH SCHOOL ENGINEERING

This introductory course provides students with the opportunity to develop and use models; analyze and interpret data; use mathematics; design solutions, and obtain, evaluate, and communicate information. Students will understand the role of engineering design, materials, tools, and manufacturing have in the natural and designed world. Students will research and analyze specific design solutions that give them an opportunity to determine the optimal conditions for performance of materials. Influences of cost, constraints, criteria, and possible environmental impacts. Use of mathematics is a key skill in designing prototypes to scale, using prototypes to scale, using prototypes or simulations that model multiple interactions in a complex problem and calculating change to a system that includes a number of variables. Students will be expected to communicate and evaluate solutions to real-world problems, propose or refine solutions, and examine the social and cultural impacts a product, material manufacturing process, or technology could have in our world. This is a year-long course.

# Social Studies & Health

## PERSONAL HEALTH MANAGEMENT 171- Dual Credit Course

Personal Health Management 171-Exploration of the major areas of health information pertinent to understanding how to achieve, maintain and promote positive health.

## NEW MEXICO HISTORY

New Mexico history is a long survey course of the political, economic, social, cultural, and geographical features of New Mexico with an emphasis on the 20th century to the present. The student analyzes the role that New Mexico plays in national and international arenas. Student applies and reconstructs his/her knowledge of the past to develop a historical perspective and uses that perspective when examining relationships of the political, economic, social, and cultural issues of today.

## WORLD HISTORY

Providing students with an opportunity to learn the diverse history that has shaped our world, this course delves into the evolution of civilization from the rise of ancient empires through the twenty-first century. Middle school students enrolled in this exciting and informative course investigate the development of medieval societies, the effects of the Renaissance and the Reformation, and the progress made during various periods or revolution, industrialization, urbanization, and reform. Over the course of two semesters, students analyze effects of political conflicts and social issues on the continuing development and interdependence among nations in the modern world.

## US HISTORY

Offering an interactive and comprehensive overview of American history, this course engages and inspires students to learn about the rich and diverse history of America's native peoples, early European colonization and settlement in America, and the creation of a new nation through the American Revolution. Middle school students enrolled in this course will closely examine major changes brought about by the nation's reconstruction, industrialization, urbanization, and progressive reforms and consider the implications each of these events had on the expansion of the United States' global influence through modern times. Over the course of two semesters, interesting course content encourages students to think carefully about the challenges and opportunities facing the United States in the twenty-first century.

## GOVERNMENT & ECONOMICS

Exploring the structure of the United States government on a national, state, and local level, this course challenges students to learn and understand fundamental concepts and philosophies that led to the creation of the United States Constitution. Students enrolled in this two-semester course analyze the political process, political parties, and influences that affect them both. Engaging, interactive content introduces economic concepts and encourages students to explore government and economics on a global scale. By instilling a thorough understanding of government and economics, this course inspires students to investigate what it means to be an American citizen.

# Foreign Language

## SPANISH I

Middle school students began their introduction to Spanish with fundamental building blocks in four key areas of foreign language study; listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major Spanish-speaking areas in Europe and the Americas.

# General Electives

*Guitar –Beginning and Advanced*
*Band*
*Introduction to Art*
*Creative Art 1*
*Creative Art II & III*
*Yearbook 9-10*
*Dance I*
*Dance C-Team*
*Dance Varsity*
*Computer Tech*
*Photo I*
*Photo II*
*Film*
*HS Digital Arts*