

SIERRA CHARTER SCHOOL

Course Descriptions

LANGUAGE ARTS – College Preparatory
(All of these courses are A-G approved for CSU/UC Admission.)

LA 9 – CP

Timeless Voices, Gold Literature – Prentice Hall
10 credits

LA 9 utilizes a core literature program. Students will take several reading comprehension quizzes throughout the year, and the writing process is taught and assessed through various journal topics and two book reports. Students are required to read a minimum of two state-recommended novels. This course meets state standards for grade 9.

LA 10 – CP

Timeless Voices, Platinum Literature – Prentice Hall
10 credits

LA 10 utilizes a core literature program. Students will complete several reading comprehension quizzes throughout the year, and the writing process is taught and assessed through various journal topics and two book reports. Students are required to read a minimum of two state-recommended novels. This course meets state standards for grade 10.

LA 11 – CP

Timeless Voices, American Experience – Prentice Hall
10 credits

LA 11 covers various genres of literature by American authors. Students complete several reading comprehension quizzes throughout the year, and the writing process is taught and assessed through various journal topics and two book reports. Students are required to read a minimum of two state-recommended novels. This course meets state standards for grade 11.

LA 12 – CP

Timeless Voices, British Tradition – Prentice Hall
10 credits

LA 12 covers various genres of literature by British authors. Students will complete several reading comprehension quizzes throughout the year, and the writing process is taught and assessed through various journal topics and two book reports. Students are required to read a minimum of two state-recommended novels. This course meets state standards for grade 12.

LANGUAGE ARTS – General Education

LA 9

Literature, Purple Level – Globe Fearon

10 credits

LA 9 utilizes a core literature program. Assessment is conducted through reading comprehension quizzes and unit tests. Two workbooks are used, along with the text that emphasize vocabulary development and language enrichment. The writing process is taught and assessed through various journal topics and two book reports. This course meets the state standards required for grade 9.

LA 10

Literature, Green Level – Globe Fearon

10 credits

LA 10 utilizes a core literature program. Assessment is completed through reading comprehension quizzes and unit tests. Two workbooks are used, along with the text that emphasize vocabulary development and language enrichment. The writing process is taught and assessed through various journal topics and two book reports. This course meets the state standards required for grade 10.

LA 11

Literature, Silver Level – Globe Fearon

10 credits

LA 11 utilizes a core literature program. Assessment is completed through reading comprehension quizzes and unit tests. Two workbooks are used, along with the text that emphasize vocabulary development and language enrichment. The writing process is taught and assessed through various journal topics and two book reports. This course meets the state standards required for grade 11.

LA 12

Literature, Gold Level – Globe Fearon

10 credits

LA 12, focusing on British Literature, utilizes a core literature program. Units cover: early voices in British literature, writers of the English Renaissance, rise of the romantics, expressions of the Victorian era, the modern view, and the contemporary perspective. Assessment is completed through reading comprehension quizzes and unit tests. Two workbooks are used, along with the text that emphasize vocabulary development and language enrichment. The writing process is taught and assessed through various journal topics and two book reports. This course meets the state standards required for grade 12.

MATHEMATICS – College Preparatory

Pre-Algebra

Pre-Algebra, Tools for a Changing World – Prentice Hall

10 credits

This course is designed for students who do not have the prerequisite skills for Algebra 1. Upon completion of this course, students will be able to: solve one step and multi-step equations, convert decimals, fractions and percents, identify points, lines, planes, and angles and understand their relationship, graph on a number line or coordinate plane, identify types of angles, prove two triangles are congruent, solve right triangles using the Pythagorean Theorem, find the probability of an event happening, find the area of all types of polygons and circles and find the surface area and volume of various solids. This class meets all required state standards.

Algebra 1 – CP

Algebra, Tools for a Changing World – Prentice Hall

10 credits

This course teaches the tools of algebra: order of operations, adding, subtracting, multiplying and dividing integers, functions and their graphs, linking graphs and tables, algebraic concepts and simple equations, inequalities, graphing and writing linear equations, quadratic equations, exponents, right triangles and radical expressions, polynomials, rational expressions and functions. This class meets all required state standards.

Geometry

Geometry, Tools for a Changing World – Prentice Hall

10 credits

In this course, students will learn the basic terms of geometry and understand how to investigate geometric figures. Topics will include: triangle relationships, understanding perimeter and area, the Pythagorean Theorem, measuring in space, parallel lines and related angles, proving triangles are congruent, and quadrilaterals. This class meets all required state standards.

Algebra 2

Advanced Algebra, an Algebra 2 Course – Prentice Hall

10 credits

This course is an advanced algebra course designed for those students who have already mastered Algebra 1. Topics will include: models, functions and permutations, linear relationships, matrices, linear systems, quadratic equations, polynomials, exponential and logarithmic functions, rational functions, periodic functions and trigonometry, quadratic relations, probability and statistics. This course meets all required state standards.

MATHEMATICS – General Education

Basic Math

Basic Mathematics – Globe Fearon

10 credits

This is a full year, on-site class. Students are required to attend once a week at Sierra Charter School. The course covers fundamental math skills: adding, subtracting, multiplying and dividing whole numbers and decimals, metric and customary measurement, fractions and mixed numbers, estimating sums and differences, graphs, statistics, ratio and proportions, percents, probability, perimeter and area, and pre-algebra basics.

Course 1 Math

Mathematics, Concepts and Skills, Course 1 – McDougal

10 credits

This course is designed to provide students with a refresher of basic math skills including: algebra basics, decimals, number relationships and fractions, positive and negative numbers, solving equations, ratios and proportions, percents, discounts and sales tax, geometry basics (area and volume), probability and predictions.

Course 2 Math

Mathematics, Concepts and Skills, Course 2 – McDougal

10 credits

This course is for students who need refresher math before entering algebra. Topics covered are: operations with numbers, operations in algebra, operations with integers and absolute value, equations solving, rational numbers and percents, proportional reasoning, basic geometry concepts, measurement, graphing linear equations and functions, graphing inequalities, and polynomials.

Algebra 1

Algebra 1, Concepts and Skills – McDougal

10 credits

Algebra 1 is a state mandated math course, required for high school graduation. At the end of this course, students will understand the following: variables in algebra, exponents and powers, order of operations, equations and inequalities, properties of real numbers, solving linear equations, graphing, exponential functions, quadratic equations and functions, square roots, simplifying radicals, polynomials and factoring.

Geometry

Geometry, Concepts and Skills – McDougal

10 credits

In this course, students will learn the basic terms of geometry and understand how to investigate geometric figures. Topics will include: triangle relationships, understanding perimeter and area, the Pythagorean Theorem, measuring in space, parallel lines and related angles, proving triangles are congruent, and quadrilaterals. This class meets required state standards.

Consumer Math

Consumer Math – Prentice Hall

10 credits

This course teaches practical math for every day living. It begins with a review of basic math skills and progresses to topics which include: earning money (how to compute wages, overtime, gross pay plus tips, commission), how to use a calculator, net pay, personal banking skills, budgeting, making purchases, renting vs. buying a home, property taxes, paying taxes, insurance, retirement, probability, statistics and the consumer.

SCIENCE

Earth Science

Exploring Earth Science – Prentice Hall

10 credits

Upon completion of this course, students will have a basic understanding of the following: stars and galaxies, the solar system, earth’s atmosphere, earth’s ocean, earth’s land masses, earthquakes and volcanoes, plate tectonics, rocks and minerals, weather, climate, energy sources, pollution, erosion and deposition, fossils, conserving earth’s resources, and protecting our environment. This course meets state standards.

Biology

Biology – Prentice Hall

10 credits

Biology is a lab science class which covers the following topics: the nature of science, the chemical basis of life, cell energy, photosynthesis and respiration, cell growth and division, genetics, genes and chromosomes, human heredity, genetic engineering, the evolutionary theory, the nervous system, skeletal and muscular systems, respiratory, circulatory and excretory systems, endocrine system, reproduction and development, diseases and the immune system, viruses and bacteria, biomes, population and communities, drugs, alcohol and tobacco. Students are required to complete the on-line labs in addition to all text-book work to receive credit for this class. This course meets state standards.

Physical Science

Physical Science – Glencoe

10 credits

In this course, topics include: motion and speed, forces, energy, work and machines, thermal energy, electricity and magnetism, energy sources, waves, sound, light, solids, liquids and gases, properties of atoms and the periodic table, elements and their properties, chemical bonds, solutions, and organic compounds. This is a “lab” class, and students are required to complete the on-line labs to receive credit for this class. This course meets state standards.

Chemistry

Conceptual Chemistry – Addison Wesley

10 credits

Chemistry topics include: chemistry is a science, elements of chemistry, discovering the atom and subatomic particles, the atomic nucleus, atomic models, chemical bonding and molecular shapes, molecular mixing, water molecules, chemical reactions, acids and bases, oxidations and reductions, organic compounds, chemicals of life, chemistry of drugs, optimizing food productions, fresh water, air, material and energy resources. This class meets state standards.

Life Science

Exploring Life Science – Prentice Hall

10 credits

Life Science covers: the nature of life, cells, tissues and organ systems, classification of living things, viruses and monerans, protists, fungi, plants, arthropods and echinoderms, fishes and amphibians, reptiles and birds, mammals, skeletal and muscular systems, digestive system, circulatory system, nervous and endocrine system, reproduction and development, immune system, alcohol, drugs and tobacco, genetics, changes in living things over time, interactions among living things, and cycles in nature.

Physics

Physics, 3rd Edition – Prentice Hall

10 credits

Physics is an advanced science class. Topics include: the metric system, force and motion, work and energy, momentum and collision, equilibrium and rotational motion, solids and fluids, temperature, vibrations and waves, sound, electric charge, forces and fields, electric circuits, magnetism, reflection and refraction of light, physical optics, relativity, quantum physics, and nuclear reactions.

SOCIAL STUDIES

Geography

World Geography – Prentice Hall

5 (or 10) credits

Students can take this class for either one or two semesters. (Only one is required for graduation.) World Geography will cover topics including: weather, climate, and vegetation, population and culture, resources and land use, world economic activities, profiles of the 7 continents and how history shapes various countries around our world. This class meets state standards.

World History

World History, The Modern Era – Prentice Hall

10 credits

World History topics include: Early Civilization to Modern Times, Enlightenment and the American Revolution, the French Revolution and Napoleon, the Industrial Revolution, Revolutions in Europe and Latin America, the Industrial Age, Western Democracies, Imperialism, New Global Patterns, World War I and World War II and their aftermaths, Revolution in Russia, the world since 1945, Forces shaping southeast Asia and the Middle East, and Nationalism. Assessment is done through chapter quizzes, case studies, research papers, and unit exams. This course meets state standards.

U.S. History

American History, The Modern Era – Prentice Hall

10 credits

In this course, students will gain an understanding of our nation's history and the events that brought us to where we are today. Topics include: exploration and settlement, Colonial Life, the Constitution, organizing a government, the War of 1812, the Civil War era, reconstruction after slavery, farming moves west, the rise of industry, an urban society, politics and protest, Imperialism, the Spanish-American War, the Progressive Era, World War I, the Depression, World War II, the Cold War, Viet Nam, the Kennedy Era, Watergate, and moving toward a new century. This course meets state standards.

Government

American Government – Prentice Hall

5 credits

This one semester course covers the basic elements of the American political process and the institutions of our national government. Topics will include: the principles and origin of American government, political parties, the electoral process, powers of congress, the presidency, our government at work, foreign policy and national defense, the federal court system, civil liberties, comparative political and economic systems, local government and finance. This class meets state standards.

Economics

Economics, Principles in Action – Prentice Hall

5 credits

This is a one semester course and covers the following topics: American free enterprise, supply and demand, the role of prices, market structures, business organization, labor market trends, money and banking, gross domestic product and growth, economic challenges (unemployment, poverty, inflation), taxes and government spending, fiscal policy and international trade. This course meets state standards.

PHYSICAL EDUCATION and HEALTH

Physical Education 1

Foundations of Personal Fitness – Glencoe

10 credits

Students are required to exercise 45 minutes, 4 times per week and record their activity on their lesson plan. In addition to exercise, they are to work through the Foundations of Personal Fitness textbook which cover topics such as: risk factors relating to personal fitness, how to make physical activity safe, how to design an exercise program, skill and health related to fitness, cardiovascular fitness and how to prevent disease, weight training and muscular fitness, body composition and nutrition.

Physical Education 2

10 credits

Students are required to take a minimum of 2 years of Physical Education. For this class students will keep a weekly log of their physical exercise (4 times per week minimum, and 45 minutes each day).

Health

Health Skills for Wellness – Prentice Hall

5 (or 10) credits

This course teaches students how to become and stay healthy. It teaches the skills necessary to make responsible decisions and develop behaviors that promote healthy lifestyles. Topics include: physical fitness, nutrition, emotional health, functions of the bodily systems, diseases, and the environment.

ELECTIVES

Auto 1 and 2

Automotive Excellence – Glencoe

5 (or 10) credits

This course is recommended for students who have an interest in auto mechanics. Topics include: The Automotive Industry, Automotive Safety Practices, Automotive Tools and Equipment, Brake System Operation, Diagnosing and Repairing Brakes, Electrical Systems and how to diagnose and repair electronic problems, Engine Performance, Suspension and Steering.

7 Habits

7 Habits of Highly Effective Teens – Covey

5 credits

This is an excellent course for all high school students. Students are required to read 7 Habits of Highly Effective Teens, and work through the corresponding workbook which gives students skills for setting goals and being proactive in their lives. The book also encourages teens to exercise self-discipline, and to take responsibility for themselves and

the choices they make in life. Students will learn how to manage personal time by planning and will understand how to create a general attitude of “Win-Win” thinking. Effective listening skills will be taught along with the importance of diversity. The end of the book covers the need for taking care of your body and soul with good nutrition, exercise, quiet time, journaling, and self-reflection.

Art History

Art in Focus – Glencoe

10 credits

After taking this course, students will be able to recognize and examine examples of prehistoric cave paintings and other early art forms. Other topics include: the art of ancient Egypt, the evolution of Greek sculpture, the rising power of Rome, art of India, China, and Japan, Native art of the Americas, African art, early Christian, Byzantine and Islamic art, Medieval, Romanesque and Gothic art, and the Italian Renaissance.

CAHSEE Language Arts

CAHSEE, Success, Language Arts – Kaplan

5 credits

This course is required for students who have not passed the Language Arts portion of the California High School Exit Exam. In addition to learning test taking strategies, students will also build and apply inference skills by reading between the lines, they will build their grammar and vocabulary skills, and will practice paragraph and essay writing.

CAHSEE Math

CAHSEE Mathematics – Kaplan

5 credits

This course is required of students who have not passed the Math portion of the California High School Exit Exam. Students will review test taking strategies, number sense, measurement and geometry, the Pythagorean Theorem, algebra and functions, rules for exponents, basic operations of Algebra 1, inductive and deductive reasoning.

Clothing

Clothing – Glencoe

10 credits

This elective course is for students who have an interest in clothing trends and fashion design. Topics include: influences on clothing, cultures and customs, self-expressions (developing your personal style), fashion history, styles and designers, the design process, the fashion industry (merchandising, promotion, manufacturing), color, fabrics, clothing care basics, career preparation, and sewing.

Community Service

5 credits

Students volunteer a minimum of 50 hours in to provide needed services to their community. Prior approval from school administration is required before starting this class. Students will keep a log of hours and services provided.

Driver's Education

Responsible Driving – Glencoe

5 credits

This is a 5 week, on-site course. Students must attend every class session to pass. Topics covered: driving and mobility, traffic laws, signs and signals, pavement markings, basic control tasks, systems and checks prior to driving, basic maneuvers, environments and traffic settings, intersections, sharing the road with others, vehicle movement, light and weather conditions, environmental changes, physical readiness as well as psychological and social readiness, handling social pressures.

Nutrition and Wellness

Nutrition and Wellness – Glencoe

10 credits

This course is designed to introduce students to the field of nutrition and wellness including major trends and issues, career paths, and employment opportunities. Topics include an overview of wellness, factors contributing to one's wellness, and the relationship of health risks, food choices, physical activity and nutrition to wellness. Students will also learn about the importance of safe food handling and storage practices.

Teen Parenting

Teen Parenting

5 credits

This class is recommended for teen parents. They will read through Teen Parenting and write weekly summaries of each chapter and how they plan to apply what they have learned to their daily lives.

Work Study

5 credits

Work Study is designed to offer students a realistic experience in the working world. Students are required to submit pay stubs showing work hours. To earn credit, students must remain employed while enrolled in the course.

Writing Workshop

Grades 9-12

2.5 credits

This workshop is an on-site, 6 week core-elective course offered for grades 9-12 to improve writing skills. It covers the various forms of essay writing: narrative, persuasive, and expository.

Vocabulary

Grades 9-12

5 credits

This is a core-elective class that teaches the various parts of speech and will help the students expand their vocabulary.

FOREIGN LANGUAGE

Sign Language

American Sign Language 1

10 credits

This course is designed to introduce students to a visual-gestural language (American Sign Language) used by the Deaf community in the United States and Canada. It will introduce students to the culture of the Deaf community and its appropriate behaviors. Students will also be engaging in conversation using ASL at a level expected for beginning signers.

Spanish 1

Juntos Uno – Prentice Hall

10 credits

Communication is the central goal of second language learning. Through the study of Spanish students begin to understand and appreciate the diversity of the Hispanic culture. In this course students will learn basic vocabulary and verb conjugation.

Spanish 2

Juntos Dos – Prentice Hall

10 credits

Communication is the central goal of second language learning. Through the study of Spanish students begin to understand and appreciate the diversity of the Hispanic culture. In Spanish 2 students will learn to communicate more in depth and will know how to read and write Spanish literature.

Spanish 3

Juntos Tres – Prentice Hall

10 credits

Spanish 3 is an advanced study of the Spanish language and culture.

VISUAL and PERFORMING ARTS

Draw Squad

Draw Squad – Simon and Schuster

10 credits

This course teaches the basics of drawing and sketching. Students are required to turn in several practice samples each week. They will learn how to create depth and third dimension, shading techniques, how to use contour lines to add shape and volume, shadowing, the significance of size, etc.

Photography

Intro to Photography 101 – Alwright

5 credits

This course is for anyone with an interest in photography. Students must have access to a camera and film are responsible for all developing costs. A notebook of all assignments and pictures taken are turned in to the teacher at the end of the semester. Topics covered in this class: camera parts, types of cameras, lenses and film, composition, lighting, point of view, portraits, silhouettes and group pictures, photographing children, landscape and panorama, action shots, animals, special effects and display, websites.

Understanding Art

Understanding Art – Glencoe

10 credits

This course will provide students with an understanding of art forms from all over the world and from different eras. Topics covered: elements and principles of art, media of art, prehistoric art, art of the Far East, art of Pre-Columbian America, art of Greece and Rome, art of India and Islam, art of Africa, art of the Middle Ages, art of the Renaissance, European art, Native American art, art in the 19th and 20th centuries, art of today and the future.

Watercolor

Watercolor Class – Watson Guptill

10 credits

Topics covered include: brush movements and marks, the world of shape, color plans, texture, landscape components, expanding color, backlighting, gouache, self portrait, aerial perspective, abstraction, grids, and remedies. Students are required to produce samples from each chapter.