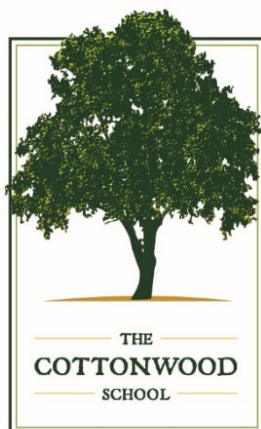


The Cottonwood High School



Course Catalog

2020-2021

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Montessori Principles

The Cottonwood School course of study blends Common Core, project-based learning, and 21st Century Skills with the philosophy of Montessori. Incorporating TCS values with the spiraling curriculum deepens understanding leading to student agency—where a student has a growth mindset to take charge of their own learning.

Community Meetings

In a relaxed, open environment students are able to respectfully express themselves. Community meetings support student agency through mindful engagement as a participant and through leadership development as a facilitator.

Advisory

Advisory is all four years with the same group of students and same advisor. Advisors help students find educational resources, assist students to target key academic learning goals, work with mentors to ensure the rigor of internships, and actively involve parents in their student's education.

Collaboration/Garden/Personal-Reflection

Time built-in to the daily schedule allows for individual and/or small group tutorial time for students (with teacher guidance when needed).

Field Studies

To foster agency, students are encouraged to explore their own interests by participating in week-long field studies linked to various themes and academic work. These may include mini courses, local and international trips.

Service Learning

Service learning provides opportunities for students to become knowledgeable in specific areas of interest while serving local and global communities.

The Cottonwood High School Graduation Requirements

TCS Graduation Requirements	
English	40 credits
History/Social Science	
World History	10 Credits
US History	10 Credits
US Government	5 Credits
Economics	5 Credits
Mathematics (must include Algebra 1)	30 Credits
Laboratory Science	
Biology	10 Credits
Chemistry	10 Credits
Physics	10 Credits
Visual and Performing Arts/Language Other Than English	10 Credits
Physical Education	20 Credits
College Preparatory Electives	70 Credits
Total Credits Required	230 Credits

By Graduation, All Students Will

Plan and participate in one field study a year
 Attempt an independent Design Thinking venture
 Give multiple presentations including performances to the community
 Plan and participate in service learning each year

A-G College Entrance Requirements

Social Science "A" Requirement	2-years
English "B" Requirement	4 years college preparatory English
Mathematics "C" Requirement	3 years, two years of algebra and one year of geometry 4 years recommended
Science "D" Requirement	2 years with lab 3 recommended
Language Other Than English "E" Requirement	2 years of the same language 3 years recommended
Visual and Performing Arts "F" Requirement	1 year
Electives "G" Requirement	1 year

English

Composition and Communication

Meets B-English Requirement

10 Credits

Composition and Communication prepares students to master the Common Core State Standards. The course is a survey of historical and culturally significant works and informational pieces to understand how different structures are used to communicate meaning. Writing as a process of self-reflection, expression, and communication is a key component through argumentative, narrative, expository and literary analysis. Student will be working in cooperation with other classes emphasizing cross-curricular units, activities, and projects with a shared theme.

World Literature

Meets B-English Requirement

10 Credits

World Literature is a study of literature from ancient time through the present. With emphasis on major authors and literary trends, all forms of literature will be covered, including poetry, prose, and drama. Discussion and written assignments will stress insight into the works and the correlation of history, culture, literature, and other fine arts. Emphasis will be placed on critical, analytic reading skills, participation in-depth, constructive class discussion, and critical, evaluative writing. Student will be working in cooperation with other classes emphasizing cross-curricular units, activities, and projects with a shared theme.

American Literature

Meets B-English Requirement

10 Credits

American Literature is a study of works from pre-colonial America to the present, examining important themes in American culture, including the American Dream, modernism, individuality, mobility, race, the Westward Expansion and the immigrant experience. Students will engage in critical analysis of literary and expository texts (e.g., novels, short stories, plays, works of nonfiction, poetry and digital media) while becoming more aware of cultural and ethnic diversity, values, customs and beliefs in America. Students develop as critical readers and skilled writers, honing their listening and speaking skills as they engage in formal academic discourse and examine different perspectives and experiences. Student will be working in cooperation with other classes emphasizing cross-curricular units, activities, and projects with a shared theme.

Multi-Cultural Literature

Meets B-English Requirement

10 Credits

Multi-Cultural Literature students will read and analyze contemporary literature in a variety of genres from multicultural perspectives. Novels, short stories, and poems will be closely examined, not only for their plot, character, literary devices, and thematic development, but also in light of their cultural context. Articles, essays, and other non-fiction texts will be examined for their content, rhetorical devices, and political/philosophical assumptions. Students will begin to see literature as a vehicle for understanding global issues. Student will be working in cooperation with other classes emphasizing cross-curricular units, activities, and projects with a shared theme.

Mathematics

Pre-Algebra

10 Credits

Pre-Algebra is designed to prepare students for Algebra 1 with emphasis on foundational skills, student discourse, visual representations, and relational understandings. Topics covered include integers, equations, fractions, the coordinate system, and linear equations. Upon completion of Pre-Algebra, students will be prepared to enroll in Algebra 1.

Algebra 1

Meets C-Mathematics Requirement

10 Credits

Algebra 1 provides the foundation skills required for success in high school mathematics. The primary goal in Algebra 1 is to help students transfer their concrete mathematical knowledge to more abstract algebraic generalizations. Students explore the topics that include recognizing and developing patterns using tables, graphs and equations. Students will apply mathematical properties to algebraic equations. Students will solve problems using equations, graphs and tables to investigate linear relationships. Throughout this course, students will develop learning strategies, critical thinking skills, and problem-solving techniques to prepare for subsequent math courses and college entrance exams. Student will be working in cooperation with other classes emphasizing cross-curricular units, activities, and projects with a shared theme.

Geometry

Meets C-Mathematics Requirement

10 Credits

Geometry presents the major skills and concepts necessary for a student to describe and measure their world. The course develops an understanding of the key concepts: constructions, transformations, parallel and perpendicular lines, right triangles, theorems involving proofs, trigonometry ratios, perimeter, area, volume, and circles. The students will use modeling to extend their understanding of the concepts through real world examples. Throughout this course, students will develop learning strategies, critical thinking skills, and problem-solving techniques to prepare for subsequent math courses and college entrance exams. Student will be working in cooperation with other classes emphasizing cross-curricular units, activities, and projects with a shared theme.

Algebra 2

Meets C-Mathematics Requirement

10 Credits

Algebra 2 provides a review and extension of the concepts taught in Algebra 1. Topics covered will include equations and inequalities, coordinates and graphs, general functions, polynomial and rational functions, exponential and logarithmic functions. Trigonometric functions of angles and of real numbers, analytic trigonometry, systems of equations and inequalities, sequences and series. Throughout this course, students will develop learning strategies, critical thinking skills, and problem-solving techniques to prepare for subsequent math courses and college entrance exams. Student will be working in cooperation with other classes emphasizing cross-curricular units, activities, and projects with a shared theme.

Pre-Calculus

Meets C-Mathematics Requirement

10 Credits

Pre-Calculus is an advanced level of mathematics that combines algebraic, geometric, and trigonometric techniques. Students will strengthen their conceptual understanding, mathematical reasoning, and problem-solving skills. By the end of the course, students will be prepared to study college-level calculus. Students will understand how mathematical concepts can be used to model real-world problems. The course is designed to develop a student's critical thinking in the analysis of functions and function modeling.

Statistics

Meets C-Mathematics Requirement

10 Credits

Statistics is a step by step approach to the beginning statistics course to students whose mathematical background is limited to basic Algebra. This course follows non-theoretical approach without formal proofs, explaining concepts intuitively and supporting them with abundant examples. The application spans a broad range of topics certain to appeal to the interests of students of diverse background.

Science

Biology

Meets D-Science Requirement

10 Credits

The intent of Biology is to give students a greater appreciation of the implications of the power and limitations of science while meeting the Next Generation Science Standards. This class is lab-based in nature and topics covered will include: cell biology, genetics, ecology, evolution and human impacts on the natural world. In addition, students will be expected to work in cooperation with courses emphasizing cross-curricular units, activities and projects within a theme.

Chemistry

Meets D-Science Requirement

10 Credits

The intent of the Chemistry is to give students a greater appreciation of the implications of the power and limitations of science while meeting the Next Generation Science Standards. This class is lab-based in nature and explores the following topics: matter and its classification, molarity, chemical calculations, the periodic table of elements, chemical bonding, atomic structure, chemical reactions, and acid/base relationships. In addition, students will be expected to work in cooperation with other courses emphasizing cross-curricular units, activities and projects within a theme.

Introduction to Physical Science

Meets D-Science Requirement

10 Credits

Introduction to Physical Science is a college preparatory laboratory and math-based science class that prepares students to be successful in college level lab science courses. The course integrates chemistry, physics, Earth, space, and environmental science. It is aimed at building a solid foundation in physical science, integrating an intensive laboratory component that consists of both scientific investigations and designing practical applications to develop student's proficiency in the science practices. Student-centered labs will emphasize the process of inquiry and critical thinking.

Environmental Science

Meets D-Science Requirement

10 Credits

The intent of the Environmental Science course is to give students an empowering understanding of the rapidly changing world in which we live through a multidisciplinary approach to include earth science, biology, chemistry and physics. As the human population increases, our impact on the environment requires vigorous study in order to design solutions that will ensure the sustainability of the world's resources, including, but not limited to fossil fuels, alternative energy, agriculture, world's forestry, biodiversity, climate management and water. The course will also examine environmental economics and policy.

Physics

Meets D-Science Requirement

10 Credits

Physics is a college preparatory laboratory science class that will give students a foundation in Physics with related Earth Science phenomena and Engineering applications. following topics will be covered: forces, laws of motion, structures, plate tectonics, momentum, collisions, universal gravity, Kepler's laws, planetary motion, waves, earthquakes, wave technology, the nature of light, optics and light spectra, the big bang theory, electrostatics, electricity and circuits, magnetism and electromagnetic induction, energy, power plants, renewable sources, nuclear radiation and processes, and history of the Earth, stars and the universe. This course meets all NGSS standards for Physics and for Engineering Design, and many NGSS standards for Earth and Space Sciences.

Social Sciences

World History

Meets A-History/Social Science Requirement
10 Credits

World History is a survey course covering the political and philosophical roots of western democracy, the growth of democracy and nationalism in the modern era, the industrial revolution, imperialism and colonization, the two world wars, the Cold War and globalization. In addition, students will be expected to work in cooperation with other courses emphasizing cross-curricular units, activities and projects within a theme.

United States History Model United Nations

Meets A-History/Social Science Requirement
10 Credits

The United States History/Model United Nations course will combine United States History curriculum with preparation for and with a goal of participating in local Model United Nations conferences—preparing students to be informed, active, and responsible citizens. The curricular focus of this class will be the events of the twentieth century in the United States. Beginning with the dawn of the 1900s, students will examine the economic and political growth of the US and its emergence as a superpower after WWII.

Economics

Meets G-History/Social Science Requirement
5 Credits

Economics, a one-semester course, provides a comprehensive study of the basic institutions, concepts, principles, and practices of economics. The course investigates the political and economic issues confronting national, state, and local governments. The course includes an analysis of the American free enterprise system through a study of comparative economics and instruction on the international dimensions of economics and the “global” economy. Measurement concepts and methods involving tables, charts, graphs, ratios, percentages, and index numbers are introduced to understand the relationship between economic variables.

Government

Meets A-History/Social Science Requirement

5 Credits

Government is a one-semester course that explores our representative democracy and how our leading voice for freedom in the world depends on our understanding and participation in government, encouraging students to be positive, interested, and to contribute to our diverse world. The development of the Constitution, Bill of Rights, and Federalism as well as a study of political parties, voting and voting behavior, and elections at the national, state, and local levels is studied. Students will analyze the influence of special interest groups and the role of the media in shaping public opinion. The role and the responsibilities of the three branches of government at the national, state, and local levels will be explored. Students will analyze landmark court decisions in terms of civil rights and civil liberties and will study complex contemporary issues that confront national, state, and local governments such as immigration, race, abortion, gender, sexual orientation, and disabilities.

Food and Justice

Meets G-College Prep-Elective Requirement

10 Credits

In the course students engage in research on the roles and meaning of food in their lives, communities and cultures. Students explore the different approaches to our food system and provide a framework for defining and evaluating a "sustainable food system." They evaluate traits of a system that nourishes people, the environment, and the economy (a sustainable system). Students analyze the evolution and newer trends on food production, food science, marketing, consumption, food insecurity, food waste, health and the environment and assess the implications of these trends today. In addition, students will be expected to work in cooperation with other courses emphasizing cross-curricular units, activities and projects within a theme.

Geography

Meets G-College Prep-Elective Requirement

10 Credits

In this course students study distinct places and cultures. Each unit of this course will include a study of the physical geography, human geography, and major issues affecting specific regions of the world. World Geography will also teach students critical social science skills including map reading, abstract reasoning, spatial organization, and critical thinking skills. Through a variety of methods, students will develop cultural literacy and basic geographical skills. Students explore how local developments can have global and long-term effects through the study of current issues. In addition, students will be expected to work in cooperation with other courses emphasizing cross-curricular units, activities and projects within a theme.

Visual and Performing Arts

Theater 1

Meets F-Visual and Performing Arts Requirement
10 Credits

Key objectives of the course are to provide students: an opportunity to develop artistic expression, an appreciation for the art and history of theatre, a sense of cultural involvement and discovery, and basic acting techniques. The course culminates in the actors producing their own theatrical experiences, informed by the activities and research undertaken throughout the course and their understanding of the nature of theatre.

Advanced Professional Theater

Meets F-Visual and Performing Arts Requirement
10 Credits

Theater 2 builds on knowledge and skills introduced in Theater 1. This course focuses on the performance aspect of drama such as improvisation, monologues, and ensemble acting. Emphasis is on all theater fundamentals, historical theater, and theater of different cultures. Students will learn in depth the fundamentals of theater including: theater terms, the development of theater over time, acting techniques, character analysis, stage movement, prop and costume usage.

Foreign Language

Online options available for Foreign Language courses to meet A-G requirements.

Physical Education

Physical Education

10 Credits

The course promotes a keen understanding of the value of physical fitness and aims to motivate students to participate in physical activities throughout their lives. Specific areas of study include: cardiovascular exercise and care, safe exercising, building muscle strength and endurance, injury prevention, fitness skills and FITT benchmarks, goal setting, nutrition and diet (vitamins and minerals, food labels, evaluation product claims), and stress management. The course requires routine participation in adult-supervised physical activities. Successful completion of this course will require parent/legal guardian sign-off on student-selected physical activities and on weekly participation reports to verify the student is meeting his or her requirements and responsibilities. Physical Education is aligned to national and state standards and the Presidential Council on Physical Fitness and Sports.

Montessori Electives

Field Study

2.5 Credits

Students follow their curiosity by participating in week-long field studies linked to various themes and academic work. Under the guidance of an advisor, students plan field studies such as mini courses, local and international trips.