

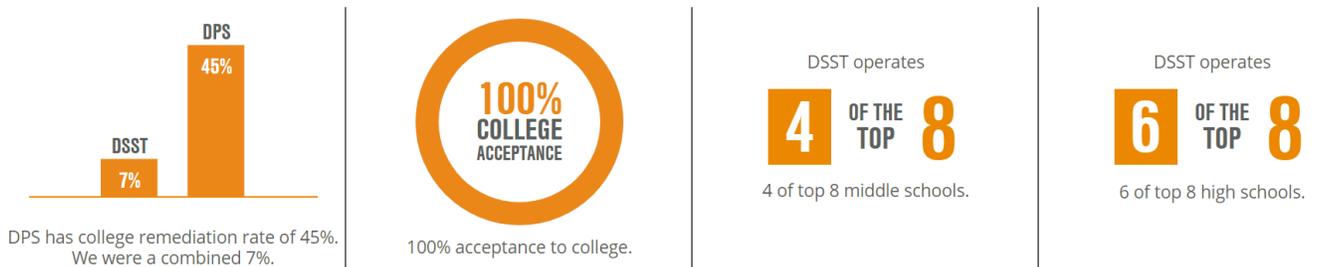


**DSST: Cole High School 2026-2027**  
**Course Catalog with Course Descriptions**

## Dear DSST: Cole High School Students and Families,

This course catalog for DSST: Cole High School includes graduation requirements and course descriptions, including Advanced Placement (AP) and other advanced course offerings. We hope this is a helpful guide in understanding the academic program for students.

In 2014, we opened DSST: Cole High School with our founding class. We are a top ten high school in Denver and top 8% nationally according to US News and World Report. The curriculum is aligned across all DSST campuses (Montview, Green Valley Ranch, College View, Cedar), which has empowered high achievement for students at all levels for the past two decades. We continue to see outstanding college readiness results (SAT) and low college remediation results for students year after year because of the high level of instruction and the quality of the curriculum in DSST schools.



### What do parents say about DSST: Cole?

*"I love the village atmosphere! Everyone cares about our children's success here!"*

*"Teachers and Advisors have been communicating very well... They want to see him succeed and I appreciate that from them."*

*"They make my son feel good and, as a parent, I trust they are doing the best for him. They do an excellent job."*

*"My daughter has been switching schools every year for the past 3 years, and she really enjoys DSST Cole High. Her grades have been the best that they have ever been and she also enjoys going to school every day."*

*"Muchas gracias por sentir que somos bienvenidos, ¡Gracias!"*

### What do students say about DSST: Cole?

*"This is my first year here and this school is so welcoming and understanding."*

*"I can be whoever I want to be and not be judged. I love how the teachers are very self-warming and will comfort you when something is wrong."*

DSST: Cole provides students with a world-class education in a diverse and inclusive environment. We are excited to see students return and to welcome new students to this rigorous, supportive and engaging school community. Should you have any questions about the contents of this course catalog, please contact School Director, Ian McIntire, at [ian.mcintire@scienceandtech.org](mailto:ian.mcintire@scienceandtech.org) or Director of College Success, MariCruz Rincon, at [Maricruz.rincon@scienceandtech.org](mailto:Maricruz.rincon@scienceandtech.org).

## Graduation Requirements

**Required Coursework:** The coursework at DSST gives students the opportunity to meet the college entrance requirements for competitive schools as well as to pursue more advanced topics and independent study.

### Coursework for DSST Students:

Department & Requirement	Core Academic Offerings (grade levels in parentheses)
English <b>4 years</b>	Composition (9) English 2 (10) AP English Language and Composition (11) AP English Literature and Composition (12) Senior English (12)
Social Studies <b>4 years</b>	Humanities (9) World History (10) American History (11) AP U.S. History (11) Civics (12) AP US Government (12)
Mathematics <b>4 Years</b>	Integrated Math 1 Integrated Math 2 / Integrated Math 2 Honors Algebra 2 / Algebra 2 Honors AP Pre-Calculus / Pre-Calculus Honors AP Calculus (AB)
Science <b>4 Years</b>	Physics (9) Forensics (9, 10) Chemistry Honors (10) Biology (11) AP Biology (11) Medical Interventions (11/12) Advanced Biomedical Sciences (11/12) Robotics (11/12) AP Computer Science (12)
Spanish <b>3 Years</b>	Spanish 1, 2 Español para hispanohablantes 1 AP Spanish Language and Culture (11/12)
Physical Education <b>1 year</b>	Credit can be earned via PE class or an acceptable equivalent (sports teams, structured recreational activities, clubs, etc.)
Industry Connect <b>1 Quarter</b>	Integrated career connections tied to pathways classes. -Guest speakers -Field trips to career connected sites

Senior Project 1 semester	Senior Project (12)
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## Coursework Requirements

The coursework at DSST is designed to give students the opportunity to meet the college entrance requirements for competitive schools as well as to pursue more advanced topics and independent study.

Area	DSST Graduation Requirement	DPS Graduation Requirement
English	40 credits	40 credits
Mathematics	40 credits	40 credits
Social Studies	35 credits (Civics is Semester- long Course)	25 credits social studies 5 credits Civics
Sciences	30 credits	20 credits lab science and 10 credits science elective
Physical Education	10 credits or an acceptable equivalent approved by the school  **For the class of 2027 and beyond, at least 5 credits must be in-person PE/Health. The other 5 credits can be an acceptable equivalent.	10 credits
Fine Arts or CTE	0 credits required based on waiver from DPS	10 credits
STEM & Creative Core Electives	17.5 credits	80 credits of approved electives
Foreign Language	20 credits (of a single language - Spanish)	
Industry Connect	2.5 credits	
Senior Project	5 credits	
Additional Choice	30 credits	
Total	240 credits	240 credits

10 credits = 1 year; 5 credits = 1 semester; 2.5 = 1 Quarter

## Additional DSST Graduation Requirements

In addition to the requirements listed above, a student must meet all of the requirements outlined below to earn a diploma from DSST Public Schools. Only students who earn a diploma are permitted to participate in graduation activities.

Criteria	Core Academic Program
Coursework	Successful completion of all required courses.
GPA	Overall C or higher

Competency Demonstration in Math and ELA	Demonstration of Math and ELA competency aligning to DPS requirements
ICAP	Complete a college plan outlining steps to go to college and the necessary college applications.
Senior Project	Complete Senior Project
Senior Seminar Course	All seniors are required to actively participate in the senior seminar elective, apply and gain acceptance to one or more colleges, and submit all required paperwork regarding financial aid and scholarship information

## Core Academic Departments and Course Descriptions

### Mathematics Department

Our vision for mathematics education at DSST Public Schools is set by what we hope to see in our students. For students to thrive in the world they will face after college, they must be able to make sense of the world through a mathematical lens. Therefore, learning mathematics requires more than learning facts and procedures for solving certain types of problems. The goal of our math program is to instill students with the following skills, knowledge and mindsets:

- Conceptual understanding of mathematical ideas, which allows students to make connections across mathematical ideas, transfer and apply their knowledge to new contexts, and have greater retention.
- Skill in carrying out procedures flexibly, accurately, efficiently, and appropriately; the development of procedural fluency allows students to focus mental energy on flexibly approaching and thinking through problems, rather than the steps to perform an accurate calculation.
- Strategic competence and adaptive reasoning; the ability to formulate, represent, and solve mathematical problems while demonstrating logical thought, reflection, explanation, and justification.
- A productive disposition, where students see mathematics as fascinating, useful, and worthwhile, and believe that productive struggle leads to breakthroughs in understanding.

### Typical Course Sequence

Course Track	9th grade class	10th grade class	11th grade class	12th grade class
Standard	Math 1	Math 2	Algebra 2	Pre calculus (Concurrent Enrollment)
Honors	Math 2H	Algebra 2H	Pre calculus H	AP Calculus AB

### Course Descriptions

#### **Integrated Mathematics 1**

Grade Level: 9

Course Length: One year (two semesters)

The fundamental purpose of Integrated Mathematics 1 is to formalize and extend the mathematics that students learned in the middle grades. In earlier grades, students define, evaluate, and compare functions, and use them to model relationships between quantities. In this unit, students will learn function notation and develop the concepts of domain and range. They move beyond viewing functions as processes that take inputs and yield outputs and start viewing functions as objects in their own right. Students deepen and extend their understanding of linear relationships, in part by contrasting them with exponential phenomena, and in part by applying linear models to data that exhibit a linear trend. In addition, Integrated Mathematics 1 uses properties and theorems involving congruent figures to deepen and extend understanding of geometric knowledge from prior grades, and uses the coordinate plane to connect algebra and geometry.

### **Integrated Mathematics 2 / Honors**

Grade Level: 9th (Honors) or 10th

Course Length: One year (two semesters)

The focus of Integrated Mathematics 2 is on quadratic expressions, equations, and functions, and comparing their characteristics and behavior to those of linear and exponential relationships learned in Integrated Mathematics 1. The need for extending the set of rational numbers arises and real and complex numbers are introduced so that all quadratic equations can be solved. The link between probability and data is explored through conditional probability and counting methods, including their use in making and evaluating decisions. The study of similarity leads to an understanding of right triangle trigonometry and connects to quadratics through Pythagorean relationships. Circles, with their quadratic algebraic representations, round out the course.

### **Algebra 2**

Grade Level: 11

Course Length: One year (two semesters)

It is in Algebra 2 that students pull together and apply the accumulation of learning that they have from their previous high school courses. Students apply methods from probability and statistics to draw inferences and conclusions from data. They expand their study of right triangle trigonometry, using the Laws of Sines and Cosines in order to find missing measures of general triangles. As the main focus of Algebra 2, students deepen their knowledge of functions. They expand their repertoire of functions to include polynomial, rational, and radical functions, and extend their work with exponential functions to include solving exponential equations with logarithms. They explore the effects of transformations on graphs of diverse functions, in order to abstract the general principle that transformations on a graph always have the same effect regardless of the type of the underlying functions. They identify appropriate types of functions to model a situation, adjust parameters to improve the model, and compare models by analyzing appropriateness of fit and making judgments about the domain over which a model is a good fit.

### **Algebra 2 Honors**

Grade level: 10

Course Length: One year (two semesters)

Algebra 2 Honors will cover the same content as Algebra 2, while continuing to prepare students who are on track to take AP Calculus in 11th and 12th grade.

### **Pre-Calculus Honors**

PCH tackles the road that leads us to Calculus. The theme of this class is *functions*. We take a deeper look at functions, continuing to fill our toolbox with problem-solving techniques and develop mathematical maturity so you are prepared to be successful in Calculus. PCH covers Functions, Inverses, Systems of Inequalities, Logarithmic and Trigonometry Functions, Matrices, and Limits.

### **AP Pre-Calculus**

Grade Level: 12

Course Length: One year (two semesters)

AP Precalculus is an advanced course designed to prepare students for college-level calculus and other higher-level mathematics courses. It focuses on the study of various types of functions, including polynomial, rational, and exponential functions, as well as their applications in fields like science, business, and data analysis. Students will explore functions through multiple representations—graphical, numerical, and analytical—and develop skills in symbolic manipulation, solving equations, and interpreting data. This course provides a strong foundation for future studies while fostering a deep conceptual understanding of dynamic relationships between quantities.

### **AP Calculus AB**

Grade Level: 12 (11th grade if on most accelerated track)

Course Length: One year (two semesters)

This course has two primary emphases: (1) prepare students with a strong one-semester calculus foundation for study in engineering and science programs in college, and (2) as a preparation for the Advanced Placement AB Calculus Examination. Students are expected to apply previously learned algebra and trigonometry skills to the study of limits, derivatives, integrals and elementary differential equations. This single variable calculus course is limited to motion along a line.

*Honors courses cover the same material with greater depth and at a faster pace. Additional topics may be included.*

## **English Department**

Our vision for literacy education at DSST Public Schools is set by what we hope to see in our students. For students to thrive in the world they will face after college, they must be able to make sense of the world through reading, writing, speaking and listening. Being fully literate requires flexibility and critical thinking in approaching texts in any format. Our goal is to instill students with the following skills and mindsets:

- Skills to approach a new text in any genre, comprehending and analyzing the text appropriately; students know what analysis is most appropriate for the text.

Ability to write for any task, purpose and audience with clarity and finesse by flexibly choosing language and structures that effectively communicate ideas.

- A fundamental belief that strong, reliable evidence is the basis for conclusions and interpretations.
- A productive disposition, where students see literacy as the foundational skill to access knowledge in any discipline, and believe that productive struggle leads to ever improving literacy.
- Healthy habits of both giving and receiving meaningful feedback on writing, within a collaborative process of revision.
- A love of reading and appreciation for the craft of writing.

## **Courses Descriptions**

### **Humanities and Composition**

Grade Level: 9

Course Length: One year (two semesters)

In Grade 9, the focus of Humanities and Composition is on the 9-10 standards, ensuring student proficiency on the standards with ninth grade texts and tasks. Within the Humanities and Composition classes, students will also continue to build their understanding of important social studies concepts. Ideally, students will read 6-7 central texts during the year.

### **English 2**

Grade Level: 10

Course Length: One year (two semesters)

In Grade 10, the focus of World Literature is on the 9-10 standards, ensuring student proficiency on the standards with tenth grade texts and tasks. In this class, students will read literature that represents perspectives from outside the United States. Ideally, students will read 6-7 central texts during the year.

### **AP English Language and Composition**

Grade Level: 11

Course Length: One year (two semesters)

Learn about the elements that define effective argument and composition through the critical analysis and interpretation of complex texts. Understand the interactions among a writer's purpose, audience, subject, and genre and how each of these contributes to effective writing. Enhance your own writing skills and better understand each stage of the writing process as you develop expository, analytical, and argumentative compositions.

### **AP Literature and Composition**

Grade Level: 12

Course Length: One year (two semesters)

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works..

### **Senior English**

Grade Level: 12

Course Length: One year (two semesters)

Senior English is a capstone course designed to prepare students for the reading, writing, and critical thinking demands of college, career, and civic life. Students engage with a diverse range of texts—including classic and contemporary literature, nonfiction, essays, speeches, and multimedia sources—to analyze how authors use language, structure, and rhetorical strategies to convey meaning and influence audiences.

Throughout the course, students refine advanced writing skills through analytical essays, research projects, and reflective writing. Emphasis is placed on developing clear arguments, using evidence effectively, and writing for a variety of purposes and audiences. Students also practice speaking and listening skills through discussions, presentations, and collaborative activities. By the end of the course, students will strengthen their ability to think critically about complex ideas, communicate effectively, and evaluate information in an increasingly complex media landscape.

### **World Language Department**

DSST believes that communicating skillfully in Spanish with the over 40 million native and heritage Spanish speakers across the United States, many of whom call the western United States home, is a valuable skill for our students to possess. Our vision for Spanish language education at DSST Public Schools is set by the knowledge, skills, and mindsets that we hope to instill in our students so that they are skilled communicators in Spanish upon graduating from DSST. To be fully effective at communicating in Spanish, students must have strong facility with reading, speaking, listening, and writing Spanish with colleagues, clients, and friends. Doing so goes beyond seamlessly producing and receiving language; successful communication requires dynamically adjusting one's language use based on the context of the interaction as well as the cultural perspectives of those with whom one communicates. For this reason, we aim to prepare our students to successfully negotiate both the linguistic and cultural demands that accompany communicating in Spanish. Our goal is to instill each student with:

- the skill to effectively communicate with a linguistically diverse group of native speakers of Spanish, comprehending and using colloquial language, regionalisms, formal Spanish, and academic language in order to do so.
- the ability to utilize literacy skills in all of their languages in order to interpret complex texts. the skill to adapt language use based on contextual factors in order to effectively present one's message to a captive audience.

- the cultural competency skills to effectively navigate interpersonal interactions with members of a wide range of cultures by seamlessly choosing the appropriate register and language forms for a given situation.
- a deep understanding of the how cultural products, practices, and perspectives are connected, which leads into a solid understanding of the general concept of culture and the ways that diversity enriches one’s life.
- a productive disposition where students see bilingualism as a tool that gives access to knowledge and experiences that may otherwise be inaccessible and helps with expressing one’s ideas in a manner that is more precise or personally meaningful.
- the ability to flexibly apply learning strategies to learn new language in an inductive fashion, both inside and outside of the classroom.

**Course Sequence Rationale and Overview**

DSST recognizes that students join the network with different levels of knowledge and skills in the Spanish language and Spanish-speaking cultures. For this reason, DSST divides our Spanish programming into three tracks.

Taught mainly in Spanish, the Spanish track begins by teaching students the foundational knowledge and skills they need and gradually builds students’ proficiency in both informal and formal Spanish so that every Spanish track student can be successful taking an AP Spanish course as a senior elective.

The Center for Applied Linguistics (CAL) defines a heritage learner as “[...] a person studying a language who has some proficiency in or a cultural connection to that language through family, community, or country of origin.” Our Spanish and “Español para hispanohablantes” (EPH) tracks have been designed to ensure that all learners, regardless of initial level of Spanish proficiency, are provided with Spanish instruction that meets their unique needs. For this reason, our EPH track has been further divided into two sequences.

	<b>Native Speaker Sequence</b>	<b>Spanish Sequence</b>
<b>10th</b>	<b>Español para hispanohablantes 1</b>	<b>Spanish 1</b>
<b>11th</b>	<b>AP Spanish Language</b>	<b>Spanish 2</b>

**Course Descriptions**

**Spanish 1**

Grade Level: 10

Course Length: 1 year (two semesters)

The Spanish 1 course provides novice speakers with a foundation in the Spanish language and Spanish-speaking cultures. The teacher uses an immersive language learning environment to build students' proficiency in speaking, reading, writing, and listening in Spanish. This is accomplished by having students practice using basic grammatical concepts and themed sets of vocabulary in context. Spanish 1 is also the beginning of our students' journey of developing the ability to use learning about cultural products and practices to deeply understand cultural perspectives.

## **Spanish 2**

Grade Level: 11

Course Length: 1 year (two semesters)

The Spanish 2 course provides novice speakers with a foundation in the Spanish language and Spanish-speaking cultures. The teacher uses an immersive language learning environment to build students' proficiency in speaking, reading, writing, and listening in Spanish. This is accomplished by having students practice using basic grammatical concepts and themed sets of vocabulary in context. Spanish 1 is also the beginning of our students' journey of developing the ability to use learning about cultural products and practices to deeply understand cultural perspectives.

## **Español para hispanohablantes 1 (EPH1)**

Grade Level: 10

Course Length: 1 year (two semesters)

The EPH1 course is a rigorous course that is taught solely in Spanish. The purpose of EPH 1 is to explore the Hispanic identity as well as what that means for our students, both as residents in the US and of their community. In this course, students read in Spanish at various Lexile levels with the expectation that their reading proficiency matches those of 10th grade Spanish-speakers by the end of the year. Students develop skills in all three modes of communication (interpersonal, interpretive and presentational) while using authentic resources and constructing authentic products. The course focuses heavily on present tense conjugations, formal grammar structures, and the culture and history of the Spanish-Speaking world. Students explore issues of culture and identity through current events articles, short stories, films, novel excerpts and poems. Students express their opinions and perspectives on these topics through presentational speaking and writing in the formal register.

## **AP Spanish Language and Culture**

Grade Level: 11

Course Length: 1 year (two semesters)

The AP Spanish Language and Culture course is a rigorous class taught exclusively in Spanish that requires students to improve their proficiency across the three modes of communication

(interpersonal, interpretive, and presentational]. The course focuses on the integration of authentic resources including online print, audio, and audiovisual resources, as well as traditional print resources that include literature, essays, and magazine and newspaper articles with the goal of providing a rich, diverse learning experience. Students communicate using rich, advanced vocabulary and linguistic structures as they build proficiency in all modes of communication toward the pre-advanced level.

## **Science Department**

### **Course Descriptions**

#### **Physics**

Grade level: 9

Course Length: One year (two semesters)

Prerequisite: None

As a student you will be able to describe and explain all sorts of physical phenomena that you see every day with a deep conceptual understanding, and you will be able to do the math, including Algebra and Trigonometry, to quantify those concepts. You will analyze your observations and articulate your thoughts through high-level speaking and writing. We will dive deep into the mechanics of physics. You will be challenged! Here is an overview of the topics we will cover:

- Semester 1: Unit 1: Motion and Kinematics; Unit 2: Forces and Newton's Laws; Unit 3: Work, Energy, & Power; Unit 4: Momentum and Impulse;
- Semester 2: Unit 5: Circular & Rotational Motion; Unit 6: Gravitation & Simple Harmonic Motion; Unit 7: Fluid Mechanics; Unit 8: Mechanical Waves; Unit 9: Electricity & Magnetism

#### **Honors Chemistry**

Grade Level: 10

Course Length: One year (two semesters)

This course is the study of general chemistry. Topics included in the year-long course are measurement, dimensional analysis, properties of matter, atomic structure theory, the periodic table and its trends, chemical composition and bonding, moles, stoichiometry, chemical reactions, thermochemistry, kinetic molecular theory, gas laws, solutions, and acids and bases. The intent of this course is to study theories of chemistry and demonstrate applications of these theories through laboratory experience. Content also relates these theories to everyday use for students.

#### **Biology**

Grade Level: 11

Course Length: One year (two semesters)

In biology the student is introduced to the study of life and living organisms. The class includes interactive learning components and laboratories that cover the fundamentals of biological structures, function, growth, distribution, genetics, and evolution. Content is covered to a junior

science class level, matching many AP biology standards, but with a focus on the major themes of the subject.

### **AP Biology**

Grade level: 12

Course Length: One year (two semesters)

Prerequisite: Biology

AP Biology is an elective course that presents biological science at a more sophisticated level than the mainstream high school classes. In this course the student studies topics related to biochemistry, cytology, bioenergetics, genetics, and evolution. The course prepares students to take the AP biology exam. This course is very rigorous in order to fully prepare students for the AP exam.

### **AP Computer Science**

Grade level: 12

Course Length: One year (two semesters)

Prerequisite: At least one course in the Computer Science/Engineering pathway (Intermediate Computer Science, Robotics, Advanced Computer Science, or Engineering). Students with a strong track record of academic success can apply for an exception if they don't meet this requirement.

AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

## **Social Studies Department**

### **Course Descriptions**

#### **Humanities**

Grade Level: 9

Course Length: One year (two semesters)

*\*See course description within English Department section*

#### **World History**

Grade Level: 10

Course Length: One year (two semesters)

The world is unbelievably gorgeous and tragic. In World History we travel from the dawn of humanity to the birth of the electronic era. Along the way you will develop your critical thinking skills, learn how

to write Document Based Question essays that will challenge and build your understanding of the world and lead to projects that allow you to explore the world and your place in it. You will continue to work on critical skills that will prepare you for college, including academic writing, researching, and being able to form an opinion and argument and back it up with evidence.

### **U.S. History**

Grade Level: 11

Course Length: One year (two semesters)

*“The very ink with which history is written is merely fluid prejudice.” Mark Twain*

This quote gets at the theory behind the structure of the DSST U.S. History course. Throughout this year, students will learn about a series of topics. In learning about this content, the goal is not to memorize facts, but to construct a personal narrative for American History. As Twain says history can be “fluid prejudice;” as a result students will be challenged to look beyond traditional prejudices in history and examine primary sources for themselves. From these documents, students will construct their own narrative for the story of this nation, thus becoming high school historians. In addition to focusing on creating a personal narrative of history, this class develops each student’s reading comprehension and writing skills.

### **AP US History**

Grade level: 11

Course Length: One year (two semesters)

Learn about the developments that have shaped U.S. History through the critical analysis of historical events and materials. Learn to weigh evidence and interpretations as you build your factual knowledge of U.S. History. Develop your ability to draw conclusions and use informed reasoning to present your arguments clearly and persuasively in essay format.

### **Civics / Senior Project**

Grade Level: 12

Course Length: One year (two semesters)

Civics is a course that will give students the context, tools, and platform to be informed and engaged citizens. Students will learn about local, national and global political systems; students will create projects to more deeply understand these systems while simultaneously understanding civic action.

Senior Project is an opportunity for our Seniors to conceive, plan, research, and execute a capstone project, start to finish. They will choose a topic based on an intersection of their interests, their abilities, their electives pathway, and what the world needs. This course represents the culmination of years of schooling in an integrated, multi-disciplinary project, which includes a presentation to an authentic, real-world audience.

## **STEM and Creative Core Pathways Department**

At Cole, we offer three pathways for students to choose, based on expressed interest and engagement from our students and community over the years. Biomedical Sciences is for any students interested in pursuing a career in the medical field or biosciences, including medical doctors, physicians' assistants, nursing, biologists, ecologists, medical sales, or related fields. Computer Science & Engineering is for students interested in potentially pursuing a career in engineering, computer science, or related fields such as construction management, data science, finance, or mathematics. The music pathway is for students with a passion for the arts and/or a plan to pursue a career in music performance, event production and management, sound design, or music entrepreneurship.

*\*Students who earn 30+ credits in the Biomedical Science or Computer Science & Engineering pathway are eligible to receive a DSST STEM & Creative Core Certificate with their diploma, recognizing depth of experience and knowledge in a specific career-related subject area.*

### **Biomedical Sciences Pathway**

\*Culminates with AP Biology

#### **Introduction to Bioscience 1**

Grade Level: 9 or 10

Course Length: One semester

Intro to Bioscience 1 is a semester-long elective designed for 9th and 10th-grade students interested in the intersection of biology, technology, and real-world problem-solving. This foundational course introduces students to the essential laboratory skills and theoretical knowledge used in the modern biotech industry, including microscopy, micropipetting, and sterile technique. Students will explore core concepts such as cell structure, DNA genetics, and protein analysis through high-interest, hands-on investigations. The curriculum emphasizes the scientific method and ethical considerations in science, preparing students for advanced coursework and providing a glimpse into high-demand careers in medicine, agriculture, and environmental science.

#### **Forensics**

Grade Level: 9 and 10

Course Length: One Semester

Forensics is a semester-long elective tailored for 9th and 10th-grade students fascinated by the application of science to the legal system. This course transforms students into investigators as they learn to identify, collect, and analyze physical evidence from simulated crime scenes. Throughout the semester, students will engage in hands-on labs covering essential forensic techniques, including fingerprint analysis, blood spatter patterns, hair and fiber microscopy, and DNA profiling. By integrating biology, chemistry, and physics, students will develop critical thinking and deductive reasoning skills while exploring the ethical and procedural standards required in criminal investigations. This course offers an exciting introduction for those considering careers in law enforcement, criminal justice, or forensic science.

## **Physical Ed and Health**

Grade Level: 9 or 10

Course Length: One Semester

*\* To satisfy graduation requirements, students may take PE/Health for 2 semesters (1 semester in 9th grade and 1 semester in 10th grade) OR earn this credit via two seasons of sports participation*

*\*All students must fulfill their DPS sex ed. graduation requirement via this course OR take a "Health Club" class if they have fulfilled their PE credit through another option.*

Explore health & fitness with a focus on:

- Apply movement concepts, principles, strategies, and tactics to learning and performing physical activities.
- Recognize how movement concepts affect brain development.
- Exhibit responsible personal and social behavior that respects self and others in physical activity settings.
- Understand the risks and safety factors that may affect participation in physical activity.

## **Medical Interventions**

Grade Level: 11/12

Course Length: One year (two semesters)

Prerequisite: Intro to Bioscience 1 OR Forensics OR approval by Mr. Spooner and your advisor

Medical Interventions is a year-long elective for 11th and 12th grade students that explores the science and technology behind the prevention, diagnosis, and treatment of disease. Students investigate how medical professionals identify health problems and develop interventions such as pharmaceuticals, medical devices, surgical procedures, and lifestyle treatments. Through hands-on activities, case studies, and collaborative projects, students examine topics such as infection control, genetic disorders, cancer treatment, biomedical engineering, and public health strategies. The course emphasizes scientific inquiry, problem solving, and real-world applications of biology and medicine, while introducing students to careers in healthcare, biotechnology, and biomedical research.

## **Human Body Systems**

Grade Level: 11/12

Course Length: One year (two semesters)

Prerequisite: Intro to Bioscience 1 OR Forensics OR approval by Mr. Spooner and your advisor

Human Body Systems is a year-long elective for 11th and 12th grade students that explores the structure and function of the major systems of the human body. Students study how systems such as the circulatory, respiratory, nervous, muscular, and digestive systems work together to maintain health and homeostasis. Through hands-on investigations, models, case studies, and laboratory activities, students examine how the body responds to injury, disease, exercise, and environmental factors. The course emphasizes scientific inquiry and real-world applications of anatomy and physiology while introducing students to concepts and careers related to medicine, healthcare, and biomedical science.

## **AP Biology**

Grade level: 12

Course Length: One year (two semesters)

Prerequisite: Biology

AP Biology is an elective course that presents biological science at a more sophisticated level than the mainstream high school classes. In this course the student studies topics related to biochemistry, cytology, bioenergetics, genetics, and evolution. The course prepares students to take the AP biology exam. This course is very rigorous in order to fully prepare students for the AP exam.

## **Computer Science & Engineering Pathway**

\*Culminates with AP Computer Science in 12th grade

### **Intro to Engineering**

Grade Level: 9 or 10

Course Length: One Semester

The course is an introduction to engineering and design principles. It includes:

- Overview of all the different fields of engineering
- Learning how to safely use hand and power tools
- Learning the iterative engineering design process
- Completing several design/build challenges, including (1) Egg Drop, (2) Trebuchet Catapult, (3) Mousetrap Powered Car, and (4) Popsicle Stick Truss Bridge.

### **Intermediate Computer Science**

Grade Level: 9 or 10

Course Length: One semester

This course provides an overview of some fundamental concepts in Computer Science. Topics include basic programming in the computer language Python, the digital building blocks of computers, computer networks, and computing limitations.

### **Live Sound and Event Production**

Grade Level: 9 or 10

Course Length: One semester

Live Sound and Event Production is a semester-long, hands-on course that introduces students to the technical and creative skills involved in producing live performances and events. Cross-listed between the Computer Science & Engineering and Music departments, the course explores the technology behind professional sound systems, including microphones, mixing consoles, speakers, signal flow, and digital audio tools. Students learn how to set up, operate, and troubleshoot live sound equipment while supporting concerts, presentations, and school events. Emphasis is placed on teamwork, problem solving, and real-world production workflows as students gain practical experience managing the technical side of live performances.

## **Robotics**

Grade Level: 11 or 12

Course Length: One Year

This year-long robotics course introduces students to the fundamentals of engineering, programming, and problem solving through the design and construction of robotic systems. Students learn to apply concepts from physics, mathematics, and computer science as they build, test, and refine robots using sensors, motors, and programmable controllers. Through hands-on projects and collaborative challenges, students develop skills in mechanical design, coding, troubleshooting, and iterative improvement. The course emphasizes teamwork, creativity, and persistence as students work through the engineering design process to solve real-world problems and complete increasingly complex robotics tasks.

## **Advanced Computer Science**

Grade Level: 11 or 12

Course Length: One Year

Advanced Computer Science is a year-long course for 11th and 12th grade students who have completed an introductory computer science course and want to deepen their programming and computational thinking skills before taking AP Computer Science Principles. Students expand their understanding of core concepts such as algorithms, data structures, debugging, and software design while working with increasingly complex programs and projects. Through hands-on coding activities and collaborative problem solving, students learn how to break down problems, write efficient code, and develop larger programs that incorporate user input, data processing, and logical decision making. The course emphasizes practical programming experience, creativity, and persistence as students build the skills and confidence needed for more advanced study in computer science.

## **AP Computer Science Principles**

Grade Level: 11

Course Length: One year (two semesters)

Prerequisite: At least one course in the Computer Science/Engineering pathway (Intermediate Computer Science, Robotics, Advanced Computer Science, or Engineering). Students with a strong track record of academic success can apply for an exception if they don't meet this requirement.

*\*\*\*See the full description in the Science Department section above.*

## **Musical Performance Pathway**

\*Culminates with AP Music Theory in 12th grade

## **Music - Modern Band**

Grade Level: 9 or 10

Course Length: Semester or Year

Modern Band is a performance-based music course for freshmen and sophomores that gives students the opportunity to play, create, and perform music in contemporary styles. Students form small, genre-based groups—exploring styles such as rock, pop, hip hop, banda, and other popular genres—while learning the fundamentals of ensemble performance, rhythm, songwriting, and arrangement. Using instruments commonly found in modern music (such as guitar, bass, drums, keyboards, vocals, and digital tools), students collaborate to rehearse and perform songs, develop their musicianship, and build confidence as performers. The course emphasizes creativity, collaboration, and musical expression while introducing students to the skills needed to work effectively in a band setting.

### **Music - Wind Ensemble**

Grade Level: 9 or 10

Course Length: Semester or Year

Wind Ensemble is a performance-based music course for freshmen and sophomores that introduces students to traditional concert band instruments and ensemble playing. Students learn the fundamentals of instrumental technique, music reading, and rehearsal skills while developing their ability to perform as part of a coordinated musical group. The ensemble explores a variety of band literature and works together throughout the year to prepare for two community concerts. Emphasis is placed on teamwork, discipline, and musical growth as students build their skills and confidence as instrumental musicians.

### **Live Sound and Event Production**

Grade Level: 9 or 10

Course Length: Semester

Live Sound and Event Production is a semester-long, hands-on course that introduces students to the technical and creative skills involved in producing live performances and events. Cross-listed between the Computer Science & Engineering and Music departments, the course explores the technology behind professional sound systems, including microphones, mixing consoles, speakers, signal flow, and digital audio tools. Students learn how to set up, operate, and troubleshoot live sound equipment while supporting concerts, presentations, and school events. Emphasis is placed on teamwork, problem solving, and real-world production workflows as students gain practical experience managing the technical side of live performances.

### **Advanced Music - Modern Band**

Grade Level: 11

Course Length: One year (two semesters)

Prerequisite: Music - Wind Ensemble OR prior musical experience with traditional instruments and basic ability to read sheet music

Honors Modern Band is an advanced performance course for 11th and 12th grade students who want to further develop their skills in contemporary music performance and collaboration. Building on the foundations introduced in Modern Band, students work in small ensembles to rehearse and perform music in genres such as rock, pop, hip hop, Latin, banda, and other modern styles. Students refine

their instrumental or vocal technique while also developing skills in arrangement, songwriting, improvisation, and live performance. The course emphasizes musical leadership, creative collaboration, and professionalism as students prepare and perform music for concerts and community events throughout the year.

### **Advanced Music - Jazz Band**

Grade Level: 11

Course Length: One year (two semesters)

Prerequisite: Intro. to Recording & Production and/or Recording & Production 2

Honors Jazz Band is an advanced performance ensemble for 11th and 12th grade students who are ready to deepen their skills in jazz and contemporary ensemble playing. Building on prior instrumental experience, students study the stylistic elements of jazz, including swing feel, articulation, improvisation, and ensemble balance, while performing music from a range of jazz traditions and modern styles. Rehearsals emphasize listening, collaboration, and musical expression as students learn to interpret charts, develop improvisational confidence, and perform as a cohesive group. The ensemble prepares for multiple performances throughout the year, including concerts and community events, providing students with opportunities to showcase their musicianship in a dynamic live setting.

### **AP Music Theory**

Grade Level: 11/12

Course Length: One year (two semesters)

Prerequisite: Any prior courses in the Musical Performance Pathway OR some experience playing and/or reading music

Do you love music? Does the evolution of how music began and progressed inspire your curiosity? Do you wonder how the music you love today came to be what it is? Are you a musician? Consider AP Music Theory! This course is the equivalent to the first semester of college/university Music Theory 1. Throughout this course we study the start of western music and how the music we listen to today began and evolved. We learn to read and write music, learn how chords/harmony progress, sight sing, ear training, analyze music and scores - and we have a ton of fun along the way! Enroll in this highly unique, challenging course and dive deep into the inner workings of the art of music. Students will be prepared for the AP Music Theory exam should they choose to take it in the spring.

## **Advisory Program**

The Advisory program is intended for students to develop relationships with both staff and peers that are supportive of their path to and through college. Advisors use the core value commitment as a guide for developing a strong advisory culture as well as supporting each student advisor through regular conferencing. Relationships are built around each student being deeply seen, known, and valued, while being supported and held accountable to their goals.

Advisory is divided into 6 main components:

- 1) daily connection and monitoring of the essential components of belonging
- 2) family engagement and communication

- 3) academic coaching through purposeful conferencing
- 4) organization and engagement with school community (attendance, document collection)
- 5) well planned / focused lessons
- 6) support/accountability that occurs outside of prescribed class-time. This can occur solo as the advisor or in conjunction with the Special Education team, Culture Leaders or Mental Health Team Members.