

2025-2026 Curriculum Guide

Middle School & Upper School



SANDIA
 PREP





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Curriculum Guide

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2025 - 2026

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OUR MISSION

The joy of learning and living is at the center of all we do. Sandia Preparatory School provides remarkable opportunities for intellectual and personal growth within a challenging and balanced program. As an extension of our families, Sandia Prep's diverse community inspires students to find their academic focus, talents, and creativity.

OUR VISION

At Sandia Prep, we will inspire our students to discover their purposes in the world by:

- Developing essential skills and intellectual potential through challenging academics;
- Cultivating a socially responsible environment of innovation and creativity; and
- Engaging as a vibrant community for the betterment of society.



Our Curriculum

We know our students learn best when they are engaged, so our teaching is geared toward active learning, critical thinking, and collaboration. Every department at Sandia Prep offers advanced classes, as well as the chance to take multiple classes in the same discipline in one year.

A Sandia Prep education positions our students well for admission to college. Each year, one hundred percent of our seniors are accepted into a four-year college or university. Most importantly, Prep graduates are well prepared for the challenges of college work and beyond.

Our Faculty

The Prep faculty is varied, experienced, and talented, with rich interests and backgrounds. They have lived, studied, and worked around the world in a variety of fields and are passionate about giving our students a global awareness.

Our teachers know that the respect, trust, and rapport they develop with their students encourage advanced learning. Students reach higher than they ever believed they could because they know they have support and help from their teachers. The Prep faculty is not only talented, it is also caring; not only connected to their passions, but also to the needs of our students.

Middle School

Course Requirements

We believe it is important for middle school students to learn skills in context. In particular, we integrate **critical thinking** and **study skills** into each discipline rather than teaching them individually.

At Sandia Prep, we want our students to discover the connections among subjects and to use these discoveries to explore and understand the world around them. Our middle school is a lively place where students develop close relationships with teachers and with their fellow students. We believe this web of relationships makes it possible for our students to take risks in a variety of areas.

Sixth-and-Seventh-Grade Rotations

The sixth and seventh grade rotation cycle allows students to sample many courses in one year to begin to know their own talents and interests, or to find new ones. Classes rotate every quarter.





Subject	6th Grade	7th Grade	8th Grade
English	English 6	English 7	English 8
Mathematics	Foundations of Mathematics	Pre-Algebra	Algebra 1
Science	General Lab Science	Life Science	Physical Science
History	World Cultures and Geography	New Mexico History and the Americas	U.S. History
Art and Technology Rotation	Visual Arts, Performing Arts, Engineering and Computer Science, AND Digital Media and Communications	DesignLab, Drama, Photography, AND Digital Media & Communications	Two full year-long electives (See Electives below)
Modern Language	Sixth Grade French, Sixth Grade Spanish, OR Heritage Spanish	Seventh Grade French, Seventh Grade Spanish, OR Heritage Spanish	Eighth Grade French, Eighth Grade Spanish, French 1, Spanish 1, OR Heritage Spanish
Physical Education	Sixth Grade Physical Education	Seventh Grade Physical Education	Eighth Grade Physical Education
Electives	Chorus, Guitar, Jazz Band, OR DareDevil Design	Chorus, Guitar, Jazz Band, OR DareDevil Design	Chorus, Guitar, Jazz Band, Study Hall, Digital Media & Film, Visual Arts, Introduction to Theater, Competitive Robotics OR Eighth Grade Experiential Leadership

Upper School

Course Requirements

Our upper school curriculum is designed to provide students with the opportunity to **test their talents** and to **develop their skills** in a variety of academic disciplines. We require students to take courses in English, mathematics, science, history, modern language, arts, digital media & communications, and physical education.

In-Depth Study

Sandia Prep also offers students the opportunity to pursue their academic interests in depth, either in elective courses in the various disciplines, in an independent study program, or in special academic programs.



Class Load and Promotion

The required class load is seven courses per year for grades 9 - 11 and six courses per year for 12th grade. While the School makes no guarantee that additional classes may be scheduled, exceptions may be made.* A 2.00 grade point average (GPA) is the cutoff point for promotion. A student must have a 2.00 GPA at the end of each marking period and a cumulative 2.00 GPA at the end of each school year to be allowed to continue.

Graduation Requirements

Classes of 2026 & 2027

Students must have 23.5 upper school credits and a cumulative GPA of at least 2.00 to graduate. Of the 23.5 credits, 18.5 are to be distributed as described on the following page and taken during upper school years; five additional credits may be taken from any department.

Class of 2028

In our ever-evolving world, the importance of teaching students to be responsible digital citizens and ensuring their comfort and confidence in the use of a variety of computer and digital technologies has never been more evident. Please note for the Class of 2028, students will be required to earn **1 credit**, up from 0.5 credit, in Digital Media & Communication (DMC). In addition, students must earn a minimum of **24 credits for graduation**, up from 23.5 credits.

Classes of 2029 and Beyond

Please note for the Classes of 2029 and beyond, students will be required to earn **2 credits** in Digital Media & Communication (DMC) OR Design & Innovation. Students must earn a minimum of **25 credits for graduation**. *Graduation requirements for all graduating classes are found on pages 6 - 8.*

Distinguished Scholar

The Distinguished Scholar Certificate is centered around classes offered at Sandia Prep. Students choose to take additional classes in a specific area of study. Students must maintain a 3.5 grade point average throughout their time in upper school. With these additional classes, students will graduate with 28+ credit hours.

Dual-Credit Courses



Sandia Prep offers dual-credit courses with the University of New Mexico and Central New Mexico Community College. Students must opt in for dual credit by registering with the respective college.

* If minimum enrollment is not met for a specific class, the course may not be offered.

Impact Lab Courses



Impact Lab courses are a new initiative that brings together service learning, interdisciplinary coursework, and real-world problem solving—key elements of our Immediate Impact priority. These courses will emphasize collaboration, community partnerships, purpose, and reflection, helping students see how their learning connects to the world beyond our campus.

Graduation Requirements

Classes of 2026 & 2027

Subject	Credits	Courses
English	4 credits	- English 9 OR Intensive Writing (1 credit) - English 10 (1 credit) - American Studies - English/History 11 (1 credit) - English 12 OR Advanced English (1 credit)
Mathematics	3 credits	- Geometry (1 credit) - Algebra 2 (1 credit) 1 year-long math course (1 credit)
Science	3 credits	- Biology (1 credit) - Two 1-year long laboratory science courses (1 credit each)
History	3 credits	- World History 1 (1 credit) - World History 2 (1 credit) - American Studies - English/History (1 credit)
Modern Language	2 credits	2 consecutive years of French OR Spanish in upper school (1 credit per year)
Visual OR Performing Arts	1 credit	1 year of Visual OR Performing Arts (1 credit)
Digital Media & Communications (DMC)	1/2 credit	1 semester-long Digital Media & Communications course (1/2 credit)
Additional Visual or Performing Arts OR Digital Media & Communications	1 credit	1 additional year of Visual OR Performing Arts OR Digital Media & Communications course (1 credit)
Physical Education	1 credit	At least 1 year-long course in any grade OR 2 semesters participating in any competitive sport (1 credit)
Additional Credits	5 credits	From any department
Senior Experience	Pass or Fail	Successful completion of Senior Experience needed to graduate

Graduation Requirements

Class of 2028

Subject	Credits	Courses
English	4 credits	- English 9 OR Intensive Writing (1 credit) - English 10 (1 credit) - American Studies - English/History 11 (1 credit) - English 12 OR Advanced English (1 credit)
Mathematics	3 credits	- Geometry (1 credit) - Algebra 2 (1 credit) 1 year-long math course (1 credit)
Science	3 credits	- Biology (1 credit) - Two 1-year long laboratory science courses (1 credit each)
History	3 credits	- World History 1 (1 credit) - World History 2 (1 credit) - American Studies - English/History (1 credit)
Modern Language	2 credits	2 consecutive years of French OR Spanish in upper school (1 credit per year)
Visual OR Performing Arts	1 credit	1 year of Visual OR Performing Arts (1 credit)
Digital Media & Communications (DMC)	1 credit	2 semester-long courses OR 1 year-long DMC course (1 credit)
Additional Visual or Performing Arts OR Digital Media & Communications	1 credit	1 additional year of Visual OR Performing Arts OR Digital Media & Communications course (1 credit)
Physical Education	1 credit	At least 1 year-long course in any grade OR 2 semesters participating in any competitive sport (1 credit)
Additional Credits	5 credits	From any department
Senior Experience	Pass or Fail	Successful completion of Senior Experience needed to graduate

Graduation Requirements

Class of 2029 and beyond

Subject	Credits	Courses
English	4 credits	• English 9 OR Intensive Writing (1 credit) • English 10 (1 credit) • American Studies - English/History 11 (1 credit) • English 12 OR Advanced English (1 credit)
Mathematics	3 credits	• Geometry (1 credit) • Algebra 2 (1 credit) • 1 year-long math course (1 credit)
Science	3 credits	• Biology (1 credit) • Two 1-year long laboratory science courses (1 credit each)
History	3 credits	• World History 1 (1 credit) • World History 2 (1 credit) • American Studies - English/History (1 credit)
Modern Language	2 credits	2 consecutive years of French OR Spanish in upper school (1 credit per year)
Visual <i>OR</i> Performing Arts	2 credit	2 years of Visual OR Performing Arts (1 credit)
Digital Media & Communications <i>OR</i> Design & Innovation	2 credit	2 years of Digital Media & Communications (DMC) course OR Design & Innovation course (2 credits)
Physical Education	1 credit	At least 1 year-long course in any grade OR 2 semesters participating in any competitive sport (1 credit)
Additional Credits	5 credits	From any department
Senior Experience	Pass or Fail	Successful completion of Senior Experience needed to graduate





ENGLISH

With writing as an essential component of our curriculum, we expect, teach, and encourage our students to gain skill and power in their own written expression by exploring both creative and analytical forms in the classroom. Drop into our classrooms, and you might witness students dissecting F. Scott Fitzgerald's symbolism in "The Great Gatsby" or reciting

Langston Hughes's "Dreams" while participating in a poetry café; gathering evidence for a literary analysis on Hamlet's anguish or revising a personal narrative culled from a childhood memory; applying Latin roots to study vocabulary, or practicing comma placement using lively, original sentences.



**Critical reading,
logical thinking, and
dynamic writing
compose the heart
of the English
Department's mission.**



English 6

From S.E. Hinton's "The Outsiders" to Shakespeare's sonnets, sixth-graders read extensively and deeply as they are introduced to literary genres through a wide selection of current and classic readings. Writing is an ever-present instruction in the sixth-grade classroom, including formal essays, journals, narratives, and imaginative assignments. Students develop their ideas and individual voices while cultivating clear expression through syntax, vocabulary, and grammar. Students also embark on an inquiry-based learning project that emphasizes active learning through the completion of a meaningful, real-world project. The project typically requires research, collaboration, critical thinking, problem-solving, and creativity.

English 7

Seventh-grade English deepens the study of reading, writing, and grammar begun the previous year. Students dive into a mix of novels, short stories, plays, and poetry—all chosen to encourage independence in discovering meaning. Through class discussion, students discern literary threads and connections, which they further explore in their writing. English 7 requires both creative and analytical writing, with an emphasis on clear, concise expression.

English 8

Joy in reading shapes the eighth-grade English class. Students are guided toward selecting what they want to read and engaging with reading as a personal art. In a spirit of exploration and discovery, students cultivate their reading preferences, strengthen their skills, and seek inspiration to enhance their enjoyment. As they pursue the authentic pleasures of reading, students are encouraged to be adventurous and to articulate their newfound sensibilities. Regular class activities also include personal journaling, creative and analytical writing, and grammar and vocabulary study.

English 9

In freshman English, students engage with literature through expository, argumentative, and creative writing along with rich classroom discussions, both aimed at enhancing their critical thinking skills. Ninth graders encounter novels, short stories, poetry, and plays, all with the aim of studying characters' coming of age stories to better understand how their own identities are growing and changing. Students seek to create cohesion among complex ideas, developing their voices in both formal literary criticism and personal writings. Hallmarks of the class also include informal in-class writing, grammar lessons, and regular vocabulary study.

Intensive Writing

Grades 9 - 10

This class satisfies the 9th-grade English credit requirement. Can also be requested as an upper school elective for grade 10.

This alternative to the standard 9th-grade English class is intended for students who want to focus on building their writing skills. Using well-known authors as their models, students learn how complex sentences and ideas fit together and then incorporate those models into their own work. They explore a variety of approaches to personal and academic writing. Because of the clear connection between reading and writing, the course involves reading and discussion but emphasizes working through the writing process with plenty of practical coaching along the way.



English 10

Sophomore English looks at works chosen from many cultures, studied with an eye to their points of view and to the narrators' cultural contexts. Furthermore, students are encouraged to find connections to their own lives through these disparate characters. English 10 emphasizes the student's growth and development in writing and interpretive skills, as well as the greater craft of structuring an argument and using precise language to present that argument.



American Studies - English/History Grade 11

Two-period English and History class

The American Studies course connects history and literature to explore the complexity of the evolving American narrative. Students learn about major events and movements from the 1870s to the present while reading fiction, nonfiction, and poetry to develop an empathetic understanding of other perspectives and times. Students also reflect on New Mexico's unusual place in the national story, strengthening connections with community by exploring local authors and issues. In addition to personal essays, research projects, discussions, and presentations, students share their knowledge and creativity in a final exhibition. This double-period course, required of all juniors, is taught by instructors from the English and History departments and meets the credit requirements in both disciplines.



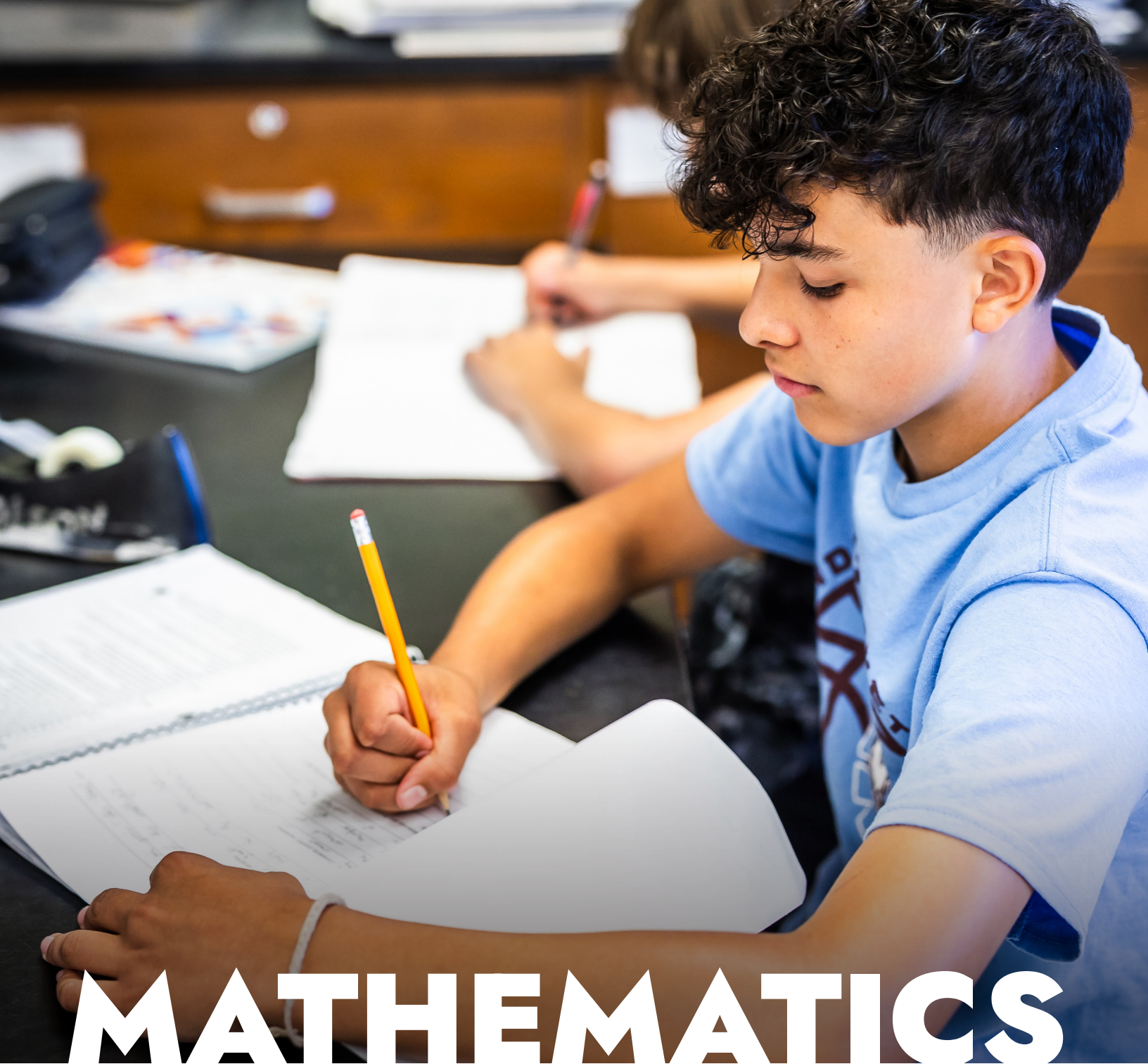
Advanced English Seminar Grades 11 - 12

This class is open to grade 12 as an English credit and to grade 11 as an elective credit (space permitting). Enrollment is limited; please see the English Department Chair for an application form.

Intended for students who truly love reading, writing, and discussing, the Advanced English Seminar class demands passionate engagement while offering a high level of autonomy and independence. As a community of readers and writers, students collaboratively design the curriculum and calendar. The reading is abundant, with an emphasis on self-selected works. In addition to expository, creative, and personal writing, students will explore various modes of literacy. During the fall semester, the class collaborates to design a project—or series of projects—that integrates multimodal literacy with impact learning goals. Together, students explore the issues that matter most to them and consider how reading, writing, and creative expression can make a meaningful difference.

English 12

Literary writing, reading, and discussion are hallmarks of the senior English class. The course challenges students to use skills from previous grades with new purposes and new sophistication. Students write analyses that offer a clear, in-depth discussion of a focused thesis. They concentrate on analyzing with thorough explanations, demonstrating how well they can unearth the complexities within a particular narrative. Moreover, they advance their abilities to recognize and interpret significant threads of metaphor and symbol, and to recognize aspects of style and theme unique to particular authors.



MATHEMATICS

Our classes are energetic, busy spaces where you will find students:

- Developing an appreciation of the breadth and beauty of mathematics
- Integrating different methods of problem-solving with confidence and tenacity
- Investigating effective applications of technology
- Developing a desire to discover
- Communicating using the language of mathematics, informally and formally
- Collaborating on projects



Math is about more than simple manipulation of numbers, formulas, and theorems. Instead, it is about imagining, predicting, verifying, analyzing, solving, and discovering.



Foundations of Mathematics

Grade 6

In this course, students hone their skills in basic calculations with whole numbers, decimals, and fractions while deepening their understanding of number systems and problem-solving techniques. The curriculum includes a variety of learning experiences with guided practice as well as collaboration with peers. This class sets the stage for pre-algebra by introducing students to integers, algebraic expressions, and equations. Students investigate additional topics including geometry, ratio, proportion and percent, measurement conversions, and number theory.

Sequential course: Pre-Algebra

Pre-Algebra

Grade 7

Prerequisite: Foundations of Mathematics

This course strengthens students' mathematical skills through practical problem-solving application and thoroughly develops the abstract foundations necessary for the study of algebra. Students investigate integers, graphs, variables, open equations and inequalities, basic geometry, statistics, word problems, formulas, rational numbers, and measurement. The concepts and procedures of mathematics are studied and developed through defining and solving problems, critical thinking and reasoning, communication of knowledge and understanding, and the connection of mathematical ideas to other disciplines with real-life applications.

Sequential course: Algebra 1

Algebra 1

Grades 8 - 9

Prerequisite: Pre-Algebra

This course develops facility in the use of mathematical concepts and provides a thorough foundation in basic algebra essential to the study of advanced mathematics. Students will work in various settings to further develop a variety of problem-solving skills via a variety of traditional and nontraditional problems. Topics covered include (but are not limited to): operations involving integers, fractions, and polynomials, solving equations and inequalities, use of formulas, factoring polynomials, linear relationships, rational expressions and equations, quadratic relationships, linear systems, and radical expressions and equations.

Sequential course: Geometry

Geometry

Prerequisite: Algebra 1

Also available as a six-week summer class

This course investigates Euclidean geometry with an emphasis on intuitive approaches and problem-solving. Students explore topics such as two-dimensional figures, logical reasoning, similarity, and right triangle trigonometry. Students are frequently encouraged to tackle topics together. Cooperation and a functioning awareness—why students are doing what they're doing—are at the heart of the program. Any technology (such as Desmos) implemented through the curriculum is geared to create opportunities for investigation and discovery.

Sequential courses: Precalculus or Trigonometry for those who have completed Algebra 2; Algebra 2 for those who have not completed Algebra 2.

Algebra 2

Prerequisite: Algebra 1

In addition to applying and extending the concepts studied in Algebra 1, students study the real and complex number systems, exponents, radicals, factoring polynomials, quadratic, rational, and radical functions, solving polynomial equations, and conics. Students have the option to work with matrix operations and applications.

Sequential courses: Precalculus or Trigonometry for those who have completed Geometry. Geometry for those who have not completed Geometry.

Precalculus

Prerequisites: Geometry and Algebra 2

This course aims to develop a foundation for the continued study of advanced mathematics through a focus on the central concepts of trigonometry and functions. Topics include trigonometric functions and their applications, graphing techniques, and various functional equations and inequalities (i.e., polynomial, rational, exponential, inverse, and logarithmic functions). Computer-based graphing utilities are used to explore the relationship between computational mathematics and the graphs that represent functions. This course provides the basic mathematical building blocks, conceptual as well as computational, to further mathematical studies in calculus, physics, and other sciences, and/or engineering in college.

Sequential course: Calculus 1

Trigonometry

Prerequisite: Geometry

This year-long course investigates the fundamental concepts of trigonometry. Topics include functions, identities, equations, graphs, and vectors. The course emphasizes real-life applications. Students utilize technology to manipulate graphs of trigonometric functions to gain a deeper understanding of how the functions behave. Students plot real-world data and create functions to model the data. They also employ a trigonometric approach to solve real-world physics problems.

Sequential courses: Statistics or Precalculus

Statistics

Students acquire the skills and tools needed to collect, analyze, and draw reasoned conclusions from data. By the end of the course, students are well-prepared for college level statistics, a requisite for most college majors. Perhaps more importantly, students are able to critically analyze and understand myriad numbers that bombard them on a daily basis. Students enjoy the hands-on exploration of the laws of probability through simulation exercises and games of chance. Projects on random sampling and experimentation help make the sometimes elusive background theory of statistics come to life.

Calculus 1

Prerequisite: Precalculus

Students study and develop facility in applying fundamental concepts of calculus including limits, derivatives, and integrals. Additionally, students investigate graphing, velocity, optimization, complex volumes, and other applications of derivatives and integrals. Students also learn the application of calculus concepts to machine learning artificial intelligence. The coursework emphasizes the power of calculus to establish a connecting link between position, speed, and acceleration; between secant and tangent slope; and between rate of change and area under a curve.

Sequential course: Calculus 2

Calculus 2

Prerequisite: Calculus 1

Calculus 2 students review the following fundamental concepts of calculus: functions, limits, continuities, derivatives, and integrals. The course then covers advanced integration techniques, hyperbolic trigonometric functions, differential equations, infinite sequences and series, parametric equations, and polar coordinates. Group learning is emphasized with an intentionally small class size, and the use of technology is encouraged on multiple collaborative projects.



INNOVATION & DESIGN

Students are immersed in problem-solving and logical thinking exercises and challenges which connect distinct but related courses. For example, the DesignLab on campus is part studio, part shared workplace, and part fabrication lab which

houses Architectural Studies, Industrial Design, and Entrepreneurial Studies. Collaboration is a crucial part of the ethos the students learn via courses which encourage purpose-driven innovation, economic mindfulness, and philosophical debate.



**Innovation & Design
courses at Sandia Prep
empower students to
become highly-skilled
in engineering, design,
computer science, and
entrepreneurship, among
other disciplines.**

6th Grade Engineering & Computer Science

Grade 6 rotation course (Info on page 3)

Students engage with material to understand the world around them and to get a taste of what engineering and computer science can provide for them in the future. They are exposed to the engineering design process and the basics of computer science. Students learn the basic structure of computer programs and how the engineering design process can be used to solve problems.



6th Grade DareDevil Design

DareDevil Design is a purpose-driven lab where students become changemakers through creative problem-solving and human-centered design. Grounded in empathy, innovation, and collaboration, students tackle real-world challenges, build prototypes, and partner with local organizations to co-create impactful solutions. They develop resilience, advocacy skills, and a deeper sense of purpose while participating in national competitions like Future City and The Lanterns Project, as well as showcasing their work at DesignLab's Exhibition Night.



7th Grade DareDevil Design

Seventh-grade DareDevil Design is a course focused on increasing students' digital literacy in the modern world. The course offers an introduction to the field of computer science field as a medium for creativity, problem-solving, and fun. First, students focus on simple program design in the visual programming language Scratch, followed by more complex designs in the Python programming language. Next, topics such as robotics and AI are explored. Throughout the year, students discuss the effect technology has on our daily lives.

Competitive Robotics

Grades 8

Get ready to design, build, and compete! In this hands-on course, students dive into the exciting world of competitive robotics. Using LEGO® Mindstorms, RoboSensei, VEX Code and other robotics platforms, students work in teams to design, build, and program robots capable of completing real-world challenges. Throughout the course, students learn key concepts in engineering, coding, and problem-solving, all while developing teamwork, creativity, and resilience. Students prepare for local, regional, or national competitions by tackling obstacle courses, autonomous missions, and head-to-head challenges. Along the way, they will explore STEM principles, practice strategic thinking, and gain experience in iteration and improvement.

Principles of Engineering

Grade 9 - 12

Principles of Engineering introduces the design, fabrication, and testing process followed by all engineers. Students learn engineering skills by building bridges, remote-controlled cars, and catapults. These projects introduce basic mechanical construction techniques necessary to be a successful engineer. Students use computer-aided design programs (AutoCAD) to design pieces needed for their projects. They fabricate prototypes and final designs to solve problems. The course instills in students the knowledge of the engineering design process and the need for iterative design.

Sequential course: Mechatronics 1

Mechatronics 1

Grades 10 - 12

Prerequisite: Principles of Engineering

Mechatronics provides a place for student creativity in a hands-on competitive environment with real-world connections. Mechatronics students go deeper and extend their experience in the engineering design process through robotics and the FIRST Tech Challenge. The FIRST Tech Challenge provides a backbone for the class to focus on while further developing skills around 3D modeling, laser cutting, Computer Numerical Control (CNC) machining, and programming. Students design and collaborate to make informed design decisions as a class to prepare for competition. This course reinforces the ideas around documentation by requiring students to develop an engineering portfolio detailing the process of designing and fabricating a robot.

Mechatronics 2

Grades 11 - 12

Prerequisite: Mechatronics 1

Mechatronics 2 will provide students with a place to engage with real-world projects and to engage with problems in a new way. Students are expected to use advanced manufacturing and design skills to complete collaborative projects in the DesignLab and to deal with more complex problems. This course encourages students to continue to develop ideas around documentation and development of engineering portfolios.

Computer Science 1: Intro to Computer Science

Grades 9 - 12

This course introduces students to the basic components of programming in Python and gives them the tools to write computer programs of their own. This course begins with instruction in logical reasoning, clarity, and organization of thought. The computer programming assignments focus on a mastery of variables, types, conditions, loops, functions, and more. Readability, debugging, formatting, and organization are emphasized throughout the course. As students develop proficiency in coding, they apply their skills in projects such as simple game development and engineering applications. It is assumed that students have little or no knowledge of programming; however, a solid foundation in algebra is an important component necessary for success in this course. *Sequential course: Computer Science 2.*

Computer Science 2: Objects, Constructs, and Algorithms

Grades 10 - 12

Prerequisite: Computer Science 1

In this year-long course, Computer Science 2 students immerse themselves in more challenging problems and learn about advanced programming constructs in Python and other programming languages. CS2 begins with a study of control flow, followed by principles of object-oriented programming. Students design larger programs than they have before. This necessitates organization, clarity of thought, and a renewed emphasis on clear commenting. CS2 students are also introduced to more advanced algorithms and data structures as well as the theory of computation.



Computer Programming Fundamentals: CS152

Grade 12

Semester-long (Offered in Fall and Spring)

Dual Credit Option (University of New Mexico)

This course is an introduction to the art of computing. This course has several goals: Students who successfully complete the course should have a firm grasp on creating small programs in Java, should be able to solve problems with code, should have a more full idea of what Computer Science is as a field, and most importantly not be afraid to dive into code! The primary emphasis of this course is to develop fluency in working with conditional control flow, looping structures, and procedural programming techniques. The secondary emphasis is to apply those skills in solving computational problems.







Introduction to Computer Programming 1: CS105L

Grades 11 - 12

Semester-long (Offered in Fall and Spring)

Dual Credit Option (University of New Mexico)

This course is a gentle and fun introduction to the basic components of programming and computer science. Using the programming language Python, students learn to write their own computer programs that do interesting things. As students develop proficiency in coding, they will apply their skills in projects such as simple game development, mathematics, and engineering. It is assumed that students have little or no knowledge of programming. However, a solid foundation in algebra, particularly a comfort with the abstractions therein, is an important component necessary for success in this course.

Special Topics in Computer Science

Grades 11 - 12

Prerequisites: Algebra 2, Computer Science 2

How do Siri and Alexa understand me, and should I be worried about my privacy? How do self-driving cars work? What is a neural network? Is AI different from machine learning? Will AI take away jobs? How can an algorithm be biased? This course will answer questions like these as students are given opportunities to delve into particular subjects in computer science. Students will help steer the course each semester with their questions and the answers they discover. Coursework includes discussion, reading, writing, and data analysis.



Engineering 4 US (e4US): ENG195

Grades 11 - 12

Semester-long (Offered in Fall and Spring)

Dual Credit Option (University of New Mexico)

Engineering for US (e4US) is a first-of-its-kind, national initiative designed to introduce engineering design principles to a new generation of students. e4US is a national pilot program for a high school engineering course that provides a standardized educational curriculum for pre-college students to learn and demonstrate engineering principles, skills, and practices. The curriculum incorporates an authentic, design-based experience and affords students the opportunity to earn college credit at participating colleges and universities. As part of the course students will learn MatLab and engage in different projects to learn the basics of the program and how they integrate with the engineering process.

Managing A Small Business

Grades 9 - 12

The Pitchfork is an internship offering meaningful, practical, hands-on work experience for students interested in small business management. Student-interns assist in the daily operations of the café, as well as organizing and coordinating events that promote the brand's value proposition of quality, education, and community. In addition to regularly scheduled class sessions, internships require work hours during some free periods, lunch or both. Interns may earn (cash) stipends for work outside of regular school hours. Students may repeat the course for elective credit.

Entrepreneurial Studies

Grade 12

This dynamic course immerses students in the world of entrepreneurship by connecting them directly with local startups and the regional entrepreneurial ecosystem. Through real-world projects, mentorships, and collaborations with business leaders, students gain firsthand experience in what it takes to build and grow a successful venture. Students explore core entrepreneurial concepts such as opportunity recognition, value proposition, business model development, marketing strategies, and financial planning. As part of the course, students participate in local and regional entrepreneurial competitions, pitching their ideas and solutions in front of real investors, business professionals, and community leaders. By developing an entrepreneurial mindset—characterized by creativity, resilience, initiative, adaptability, and critical thinking—students will be prepared not only to launch their own ventures but also to excel in any career path they choose. This course empowers students with skills in leadership, problem-solving, collaboration, and innovation that are valuable in college, the workforce, and beyond.



SCIENCE

In middle school, students gather a fundamental understanding of science through the exploration of physical, life, and Earth science. This foundation emphasizes scientific theory and proper lab techniques through hands-on experiences. Upper school students start with geology, where they are provided a window into the past through the geological history of New Mexico.

Biology students study genetics, bacteria, microscopy, photosynthesis, respiration, and ecosystems. Chemistry leads students through a variety of complex labs. The physics curriculum allows students the opportunity to learn not only how something works, but also how to physically apply theories. By graduation, students are equipped to be competitive in any science program at any university.



**Through comprehensive
course work, Sandia Prep
endeavors to introduce
students to the many
facets of science.**



General Lab Science

Grade 6

Sixth-grade science is a lab-based introductory class focused on building science knowledge, skills, and experience. Topics include astronomy, geology, biology, physics, and chemistry. In addition to content, students practice planning and conducting experiments, analyzing and interpreting data, and writing technical lab reports. This is primarily an inquiry-based classroom experience where students learn and practice thinking like scientists to help further their success in the advanced science curriculum in upper school and beyond.

Life Science

Grade 7

The primary objective of the seventh-grade science program is for students to explore biological communities and the roles of living organisms. The class begins in the school garden, with inquiry-driven field ecology experiments on plants, pollinators, ants, and soil. Students delve into botany by germinating seeds and studying plant growth and plant anatomy. With this foundation, students transition into ecosystem studies of diverse microscopic pond life and the intricate structures inside cells. The class expands to explore biomes and their respective climates and biota. Next, students learn about how Earth's climate system works and the causes and consequences of climate change. In the spring, the focus shifts to reproduction, genetics, and the human body, and the factors that keep it healthy.

Physical Science

Grade 8

Physical science focuses on the fundamentals of chemistry and physics. In the chemistry section, students examine the properties of matter, atomic structure, the periodic table, chemical bonding, and chemical reactions. These concepts are applied during labs, including observing periodic trends within elements and forming new chemicals during chemical reactions. In the physics section, students examine forces, motion, energy, and simple machines. Students perform labs using speed as a predictive tool, observing how work and force change through simple machines, and determining power and work through physical challenges.

Geoscience 1

This yearlong lab science class studies the earth's dynamic processes and systems through real world topics including earthquake risk, volcanic hazards and mass extinctions, as well as concepts such as mineralogy, rock cycles and plate tectonics. Students observe and study the planet, using evidence from the past and present to predict the future. They evaluate how communities build resilience in the face of natural disasters, determine the availability of natural resources, and discover the array of technologies helping us understand our planet. Students are immersed in both global and local geology, with fieldwork in the Rio Grande Rift and Ojito Wilderness, practicing observation, data collection, and analysis. Students are involved in understanding the application of scientific methods, using math for geological analysis, lab work, group projects and individual research.



Biology 1: Molecular Biology

Grade 10 (Grade 9 with teacher recommendation)

Molecular Biology introduces students to the fundamental processes that apply to all living organisms. Hands-on laboratory work is the focus of this class, examining enzyme reactions, cell structure, cell mitosis and meiosis, cell respiration and fermentation, genetics, and heredity, along with an introduction to organic and biochemistry. Extensive use of technology includes microscopy and data-collection technology with Vernier LabQuest. Students learn the basics of biology while concentrating on the scientific method, proper lab technique, data analysis, and critical thinking skills.

Biology 1: Ecological Biology

Grade 10 (Grade 9 with teacher recommendation)

Ecological Biology introduces students to the broad spectrum of macrobiology topics as they seek to answer the question, "What is life?" This is explored through the study of the fundamental concepts of life and life processes, including ecology, energy flow and natural cycles, levels of organization, environmental succession, ecosystems, and the ecology of early Earth and New Mexico. Students also delve into biodiversity, climate and climate change, biochemistry, photosynthesis, cellular respiration, enzyme catalysis, genetics and evolution, cell reproduction, Mendelian and population genetics, classification, and taxonomy. Using scientific methods of data gathering and interpretation, students not only consider current systems of diverse life forms but also look ahead to anticipate the consequences of environmental changes and decisions.

Geoscience 2

Grade 10 - 12

Prerequisite: Geoscience 1 or teacher recommendation

Geoscience 2 examines the impacts on humans and communities by natural disasters and resource use and depletion. Using the geologic fossil record and present day data, students explore major environmental issues facing humans today as well as determine what the planet has dealt with in the past. Using New Mexico geology as a focus and as an outdoor classroom, this course uses a combination of labs, map reading, real-world data, field trips, and nonfiction reading and writing, students learn more about the role water plays on our planet, including groundwater contamination, river formation, physical oceanography, and the role ice sheets and glaciers play on our planet. The class takes an in-depth look at paleontology, particularly as to how it relates to New Mexico's geologic story and explores mass extinctions. Students take field trips, including visiting Carlsbad Caverns and the Rio Grande to examine the processes that create natural resources and their influences on local communities.

Biology 2: Genetics & Microbiology

Grades 11 - 12

Prerequisite: Biology with a grade of B overall and/or teacher recommendation

This highly-challenging class provides students with an opportunity for in-depth study of microbiology, genetics, and biotechnology. During the first semester, students focus on genetics as it relates to heredity, health, and social issues. Students conduct experiments breeding fruit flies and growing genetic corn, which incorporates both scientific principles and mathematical analysis. The second semester focuses on microbiology and biotechnology as students culture and identify bacteria. The semester culminates with students working on a four-week bacterial unknown project. Along with the bacteria studies, students develop an understanding of biotechnology, including the use of gel electrophoresis for DNA analysis. Upon completion of this course, students have a solid foundation that serves them in college science classes.

Biology 2: Anatomy & Physiology

Grade 11 - 12

May be taken as separate semester courses or as a full-year course

Anatomy & Physiology provides students with the opportunity to study the structure, chemical processes, injuries, and illnesses within each organ system. The class begins with common terms, basic biochemistry, and the general organization of the body. Next, all 12 body systems are examined for students to gain a basic understanding. In addition to learning the content, students apply their knowledge during various labs, including comparing and analyzing distribution and concentration of sweat glands throughout the body during the section focused on the skin. This course includes field trips and/or guest speakers to introduce students to various medical careers and procedures they might encounter.

Chemistry 1

Grade 10 - 12

Strongly advise concurrent with Precalculus or Calculus 1

In this foundational chemistry class, students study a broad spectrum of related topics, including modern atomic theory, chemical bonding, chemical reactions, phase changes, nuclear chemistry, gas laws, and stoichiometry. Students perform labs to illustrate a variety of chemical interactions and principles with an emphasis on proper lab techniques using advanced equipment. Experiments include separating and identifying the dyes in candy coatings, comparing chemical and physical changes, determining the empirical formula of a compound, and finding the concentration of an acid through titration.

Chemistry 2

Grades 11 - 12

Prerequisite: Chemistry 1 with a grade of B overall and/or permission of the instructor.

Students investigate chemical topics in more detail to apply chemical principles to a variety of thematic content areas. Topics include polymer chemistry, forensics, redox reactions, thermochemistry, chemical equilibrium and kinetics, and environmental chemistry. In the lab, emphasis is placed on experimental design, identifying unknowns, and chemical engineering. Experiments include making soap, creating and modifying natural products dye, and isolating and identifying the compounds in polluted water.

Physics 1

Grades 11 - 12

Concurrent Course Requirement: Precalculus or Calculus 1

Physics 1 is a lab-based course that teaches the essential concepts of mechanics: kinematics, dynamics, energy, and momentum. The course involves discovering the laws of physics through lab work and data analysis as well as applying these laws in problem-solving. Inquiry-based laboratory work, mathematical problem-solving, and critical thinking are essential elements of the work in this class. The course helps prepare students for additional physics and engineering courses in college.

Physics 2

Grade 12

Prerequisite: Physics 1 with a grade of B overall and permission of the instructor.

This challenging class builds upon Physics 1 by advancing students' understanding of fundamental concepts, including rotation, gravitation, electricity, and magnetism. Inquiry-based laboratory work, problem-solving, and critical thinking are essential elements of the work in this class. The course will help prepare students for additional physics and engineering courses in college.

Astrophysics & Cosmology

Grades 11 - 12

This course combines observation using Sandia Prep's telescopes with a study of the physics behind the astronomical objects surrounding us. Students learn the role played by gravity in astrophysics, including gravitational lensing, and how matter and radiation interact. As well, students learn the basic methods of observational astronomy, the tools available to astronomers today, and the physical explanations behind what we observe.

Comparative Anatomy & Evolution

Grades 11 - 12

Prerequisite: Biology 1 - Molecular or Ecological Biology

Offered every other year

In Comparative Anatomy & Evolution, students study the origins of life and the evolution and diversity of animal phyla. The course emphasizes laboratory dissection and live observations of representative species. Students examine the taxonomic methods biologists use to determine how organisms are related, investigate the genetic basis of evolution, and study the principles and statistical methods of population genetics and cladistics (quantifying genetic similarity between different species). Independent research focuses on major evolutionary milestones and characteristics of different animal phyla. The course explores fundamental principles and drivers of evolution, such as environmental change, predator/prey interactions, disease, and symbiosis.

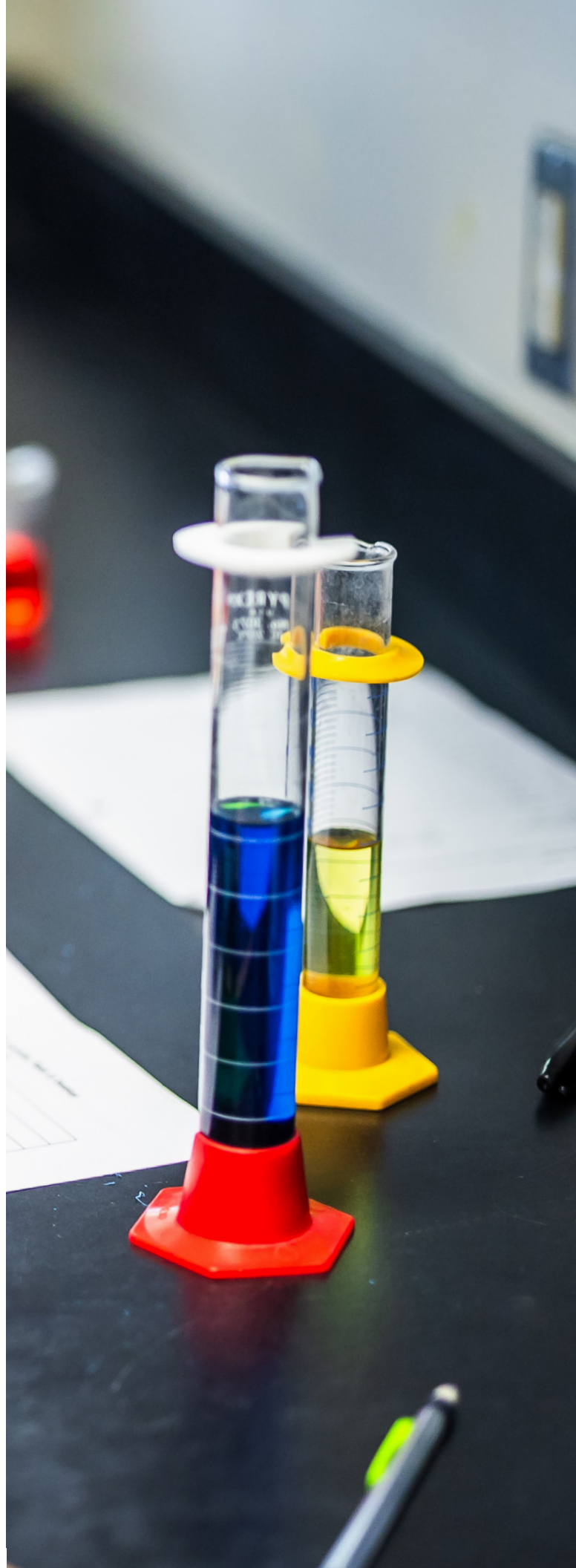
Environmental Science & Economics

Grades 11 - 12

Prerequisite: Biology 1 - Molecular or Ecological Biology

Offered every other year

This course is an exploration of the impacts of human economic development, population growth, and technology on the environment. Students start with the fundamentals of economics-types of resources; opportunity costs; supply and demand in free markets; effects of regulation, taxation, and externalities; macroeconomic measures of productivity and growth and the tragedy of the commons concept. Students calculate ecological footprints and compare industrialized, developing, and underdeveloped nations. They study major environmental issues, planet-wide climate change, energy and food production, biodiversity loss, and pollution. Students engage in a long-term project as environmental consultants to the school, developing a sustainability plan for Sandia Prep measuring effects of our school community on the environment and propose changes to mitigate our impacts, with teams focusing on the following energy demands: water consumption, traffic and transportation impacts, food sustainability, and campus biodiversity.

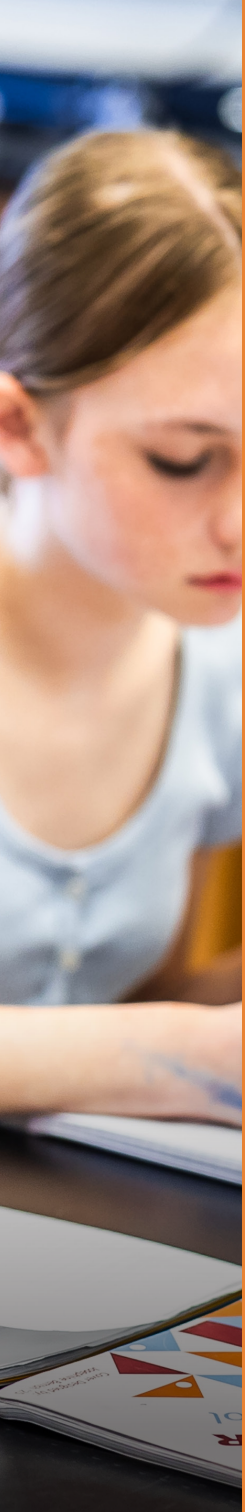




HISTORY

In our classrooms, we trace threads of experience and knowledge across time and help students understand the decisions that brought us to where we are at this moment. Our curriculum brings together global and regional studies, as our students actively and consistently engage

in conversation analyzing why and how events unfolded the way they did. Further, we offer opportunities for deep study, engaging in research and writing in such a manner that students come away with knowledge and insights unique to their particular area of study.



**To teach history is to
inspire a vision of a
global, expansive
understanding of
the complexities of
human interaction
from the distant
past to the present.**

World Cultures & Geography

Grade 6

Students in this course develop a geographic and cultural literacy as they explore their world. They acquire the concepts and vocabulary necessary to analyze the elements of any culture and to understand the interrelationship of cultures and the physical spaces they occupy. A variety of projects, research opportunities, and discussions provide the framework for student engagement and collaboration.

New Mexico & The Americas

Grade 7

This course promotes appreciation for and understanding of the factors that led to New Mexico becoming such a culturally and environmentally diverse area. Beginning with the prehistory of the region and its original inhabitants, students examine the history of conquest and adaptation by multiple groups as they acquired a common identity as New Mexicans. All of these topics culminate in the modern era as students reflect on New Mexico's role in contemporary issues. From the outset, the course supports students developing research, writing, and critical thinking skills.

U.S. History

Grade 8

This course traces the origins of American society from settlement through the Civil War. Students examine the founding of the republic and examine the creation of American government through the Constitution and the Bill of Rights in a historical and philosophical perspective as it applies to issues, cases, and controversies. Reading, discussion, writing, debate, presentation, and role-playing help students synthesize information from primary and secondary sources to prepare them for further historical and social inquiry.

World History 1: Ancient History

Grade 9

This class is a course of study that combines ideas from ancient world history into a modern context. Students learn about Ancient Greece, Rome, and Egypt as well as ancient China, Japan, and African kingdoms and societies. Through it all they look at ideas...how people thought and how those ideas have shaped our understanding of the world. Students learn geography and understand the complexity of societies as well as why people chose the path they did thousands of years ago. Students apply these ancient ideas in a modern context, seeking out ideas and structures that still exist today.

World History 2: Modern World History

Grade 10

The 10th-grade Modern World history class explores the ways in which cultures and societies develop with a focus on trade, culture, social structures, and the interaction and conflict between groups in the world. Students investigate the development of modern societies in China, Japan, Europe, the Middle East, Latin America, and nation-states in West Africa. The class uses primary source material to understand these people and the ways in which they viewed the world. In addition, students focus on research and writing, constructing papers that investigate the complexity of societies and cultures. The final project seeks to understand a human rights question in the world and uncover the ways in which people have tried to solve problems in the world.



American Studies - English/History

Grade 11

Two-period English and History class

The American Studies course connects history and literature to explore the complexity of the evolving American narrative. Students learn about major events and movements from the 1870s to the present while reading fiction, nonfiction, and poetry to develop an empathetic understanding of other perspectives and times. Students also reflect on New Mexico's unusual place in the national story, strengthening connections with community by exploring local authors and issues. In addition to personal essays, research projects, discussions, and presentations, students share their knowledge and creativity in a final exhibition. This double-period course, required of all juniors, is taught by instructors from the English and History departments and meets the credit requirements in both disciplines.



Western Civilization 1: HIST1150

Grade 12

Semester-long (Offered in Fall and Spring)

Dual Credit Option (Central New Mexico Community College)

From the ancient Greek world and the philosophy of Socrates, Plato, and Aristotle to the creation of Rome and the later European states, this course covers the religious, philosophical, and historical trends in Western Civilization. Students read texts concerned with central ideas in the West and engage in conversation, both written and verbal, on these topics.



Western Civilization 2: HIST1160

Grade 12

Semester-long (Offered in Fall and Spring)

Dual Credit Option (Central New Mexico Community College)

This course examines the transformation of the western world beginning in 1648, and moving through the Age of Revolutions, Industrialization, Imperialism, and Expansion, as well as the wars of the 20th and 21st centuries. Students will read from texts and primary sources as well as write analytical essays that discuss, explain, and analyze major problems in human societies of the recent past.

Anthropology & Archaeology

Grade 12

Throughout this course, students examine the concepts, theories, and methodologies of anthropology and archaeology that contribute to our understanding of the human past and present. Students explore topics ranging from early human evolution to Machu Picchu and what we can learn about George Washington through his garbage. Additionally, students gain hands-on experience with archaeological survey methods and artifact management both in the classroom and through field trips.



Psychology

Grade 12

For students interested in human behavior and purpose, this introductory psychology course explores brain function, learning, and cognition in the first semester, followed by social psychology in the second. Students examine group dynamics, developmental stages, and mental health, while engaging in hands-on projects that build empathy, strengthen community ties, and promote mental health advocacy. Through research and reflection, they'll connect psychological concepts to their own lives and goals.





MODERN LANGUAGES

That our students learn a second language well is evident all over campus: middle schoolers jumping from their cars at morning drop-off to proclaim, “¡Buenos Días!” to their Spanish teacher; upper schoolers sitting on the grass having lunch, practicing the poetry recitation due in French. Advanced students are comfortable discussing

novels and giving presentations in their second language. To truly become global citizens, our students must also be comfortable with other cultures, to not only know but also appreciate the ways other cultures differ from ours. In language classes, students study that aspect of language just as closely.



**Our language classes
create a new awareness—
an expansive vision—
that includes not only
what it means to be
different, but also what
it means to be the same.**

Middle School French

Grades 6 - 8

Students learn French through technology, songs, games, and role-play in an environment that focuses on creating community and enjoying the learning process. Verbal practice and confidence-building begin the process of creating passionate, engaged, lifelong language learners. Students collaborate in an immersion atmosphere to complete a myriad of projects, including café and market simulations, planning itineraries, and crafting a dream home, all in French.

Middle School Spanish

Grades 6 - 8

Students learn Spanish through technology, songs, games, and role-playing in an environment that focuses on creating community and enjoying the learning process. Verbal practice and confidence-building begin the process of creating passionate, engaged, lifelong language learners.

French 1 - 5

Grades 9 - 12

From the beginning level of study, learning basic vocabulary and verb conjugations, to our advanced classes that include the study of French literature, each level of instruction offers a continued, ever-deepening study of the language and culture of francophone countries. Students work together to write dialogue and stories, build fictional cities, and cook French meals. French is primarily spoken in an immersion environment, even in the beginning levels, so the students' listening proficiency becomes highly developed. In addition to the language and culture, students also examine important aspects of French history, art, and music.

Spanish 1 - 3

Grades 9 - 12

These courses focus on acquiring Spanish by equipping students with the four core language skills: speaking, listening, reading, and writing. As they progress through the classes, students build on prior knowledge and skills to advance to the following levels. They are exposed to various text types, including poetry, short stories, fiction novels, and informative texts. They engage in multiple activities, including presentations, projects, dialogues, and creative writing, on diverse topics. While developing their Spanish communication skills, students are encouraged to gain awareness and understanding of different cultures. The courses are mainly taught in Spanish to immerse students in the target language as much as possible.

Upper School Courses

Upon the completion of eighth-grade Spanish or French, teachers will make a recommendation as to the best placement for each student in ninth-grade language.

The department highly recommends abiding by this process to ensure student success and achievement in developing their language proficiency.

There are two options:

- **Spanish 1 or French 1** - The focus is on reviewing foundational concepts and is more accommodating to support any gaps in previous learning.
- **Spanish 2 or French 2** - These courses are more accelerated and challenging, and dependent on retention of material from the middle school program.



Spanish 4

Grade 11

Using Latin American films and documentaries as a point of departure, students research and discuss issues in Latin American history, culture, and politics. Students explore regional dialects and new vocabulary connected to films such as "Sleep Dealer," "Cocote," and "No!". Students are introduced to complex issues of grammar, which they apply in writing academic and creative essays, participating in Socratic seminars, and preparing oral presentations on contemporary social, cultural, and political issues such as immigration, gender, race and ethnicity, and the impact of the economy on different social classes in Latin American communities. Students learn critical thinking skills and deepen their verbal and written expression in Spanish.



Spanish 5

Grade 12

This advanced Spanish course combines language learning with real-world issues at the U.S.-Mexico border. Students enhance their Spanish skills by reading, writing, listening, and speaking using authentic materials, such as news, literature, and interviews. They study immigration challenges faced by Latin American communities and express these stories through a creative mixed-media art project called The Border Doors. The course concludes with a public art exhibit and a student-led campaign aimed at raising awareness and promoting social justice. Students also gain hands-on experience working with local organizations, developing leadership, empathy, and social responsibility through community projects and a border immersion trip.

Heritage Spanish 1

Grades 6 - 7

This class is offered to sixth- and seventh-grade students with strong proficiency in Spanish. This advanced language instruction is typically for students who speak Spanish at home or who come from dual-language programs. Students explore such themes as Latina women in history and the idea of the hero in reading, conversation, essays, and multimedia presentations. While this is a course based in conversation, students also receive supplemental lessons in grammar. The focus is to produce articulate and well-rounded speakers and writers of Spanish.

Heritage Spanish 2

Grades 8 - 9

In the second year of this course, students engage with the arts of journalism and reporting the news. Students create their own blogs and develop their writing skills, as well as participate in group and individual projects about the Latino communities in the U.S., New Mexico, and Latin America. Students develop language, culture, and critical thinking.

Heritage Spanish 3 - 5

Grades 10 - 12

The primary purpose of this course is to develop all four language skills: listening, reading, writing, and speaking. This class is designed for learners who have been exposed to Spanish in their homes, schools, or communities from a young age. The course provides intensive composition and conversation practice in Spanish. Students use a variety of readings, films, and documentaries from Latin American authors and filmmakers. The goal is to continue to expand the command of Spanish grammar and vocabulary and develop communicative and rhetorical skills, fluency, and pronunciation. Students prepare for the Modelo Naciones Unidas (Spanish Model United Nations) Conference held at the New Mexico State Capitol in Santa Fe. As part of their preparation, they research three different topics and learn how to write a position paper and resolution.



PERFORMING ARTS

Walk into our Performing Arts Center and you will hear a glorious cacophony: saxophones riffing Sammy Nestico; the chorus singing an African folk song; actors running lines; dancers calling out the 5-6-7 beat; groups of guitarists concentrating on complicated chord progressions; and student directors giving orders to the student tech crew.

Our Performing Arts students work hard and put in long hours to reach the high bar of excellence their teachers set, but the final product is always stunning. "Worth it," the students say. The audience, usually on their feet applauding thunderously, would certainly agree.



**With an abundance
of performing arts
courses, including a
comprehensive middle
school theater program,
students acquire
technical skills and
nourish their creativity.**

6th Grade Performing Arts

Grade 6 rotation course (Info on page 3)

Improvisations, theater games, creative dramatic presentations, videos, and the basics of ballet and jazz give students confidence as speakers and performers. Additionally, music classes include the fundamentals of voice, reading a score, and music literacy.

7th Grade Drama

Grade 7 rotation course (Info on page 3)

Seventh-grade drama students choose the play they wish to perform and make it all happen, building the entire production from costumes and lighting to rehearsals and final performances.

8th Grade Introductory Theater

Grade 8

This course provides a solid introduction to the performing arts, focusing primarily on acting and touching on theatrical production. Included in this curriculum are workshop segments covering auditioning, character development, vocal work, monologues, scenes, improvisation, theater history, and performance (including a musical). Students explore the technical tools that enhance an actor's process. This includes makeup design, costuming, prop manipulation and construction, and a general overview of all the technical and production elements needed to produce a show. Students have opportunities to perform individually as well as with others. This course provides a solid foundation that gives students a better understanding of the theatrical process, prepares them for upper school classes and productions, helps develop their confidence for public presentations, and piques their interest in multiple areas of the performing arts.

Fundamentals of Dance

Grades 9 - 12

This course is an introduction to the fundamentals of ballet technique. Ballet elements include beginning ballet movements, positions, vocabulary, and barre work. Students explore other genres of dance such as jazz, hip-hop, and lyrical/contemporary. In each class, students are expected to participate in warm-ups, across-the-floor progressions, choreography, and review. Dance classes require students to be dressed appropriately in dance attire, and participation is essential to the fulfillment and completion of this course.

Explorations of Dance

Grades 9 - 12

This course is for students with previous dance training. Students build on their ballet and jazz techniques as well as the elements of performance, choreography, production, and teamwork. During each class, students participate in stretch and strength exercises, across-the-floor progressions, and collaborative choreography projects. Students focus on increasing flexibility, stamina, and muscle tone. Students must be dressed appropriately in dance attire, and participation is essential to the fulfillment and completion of this course.

Chorus

Middle School Chorus: Grades 6 - 7

Upper School Chorus: Grades 8 - 12

Students develop proper vocal technique with posture, breath management, diction, and expression, as well as score study, sight reading, and analysis of musical forms. The course's songs include diverse cultures and historical periods. Students perform regularly and have the opportunity to audition for the Solo and Ensemble Festival and All-State competitions.



Jazz Band Beginning, Intermediate, and Advanced

Grades 6 - 12

Jazz Band courses encourage and embody passion, energy, and enthusiasm for music. Beginning players learn to play an improvised solo with confidence in true jazz tradition. Every student in the course learns to interpret different styles and rhythms, to perform as an ensemble, to develop the skills of sight-reading and improvisation, and to make music come alive through the subtleties of dynamics and phrasing. Student must provide instrument.

Beginning Guitar

Grades 6 - 8

The Sandia Prep guitar program is open to all students. Beginning guitar focuses on providing a strong foundation on the instrument. No previous experience playing guitar is necessary. All guitar classes perform in concert throughout the school year. Students must provide their own nylon string guitar. Limited instruments are available for loan upon request.

Intermediate Guitar

Grades 6 - 9

Prerequisite: completion of Beginning Guitar class or permission of the instructor.

Intermediate guitar expands the skills taught in the beginning class, such as 1st position note reading, basic chords, scales, and proper technique. All guitar classes perform in concert throughout the school year. Students must provide their own nylon string guitar. Limited instruments are available for loan upon request.

Advanced Guitar

Grades 8 - 12

Prerequisite: Permission of the instructor. All guitar classes perform in concert throughout the school year.

The Sandia Prep guitar program is open to all students who have an interest in learning to play the guitar. The Advanced Guitar class prepares and performs complex musical selections. In addition to performing in school concerts, students participate in festivals, such as honor ensemble, All-State Conference, Solo/Ensemble, etc. Students must provide their own nylon string guitar. Limited instruments are available for loan upon request.

Tech Theater

Grades 9 - 12

Prerequisite: Each level must be successfully completed before moving on to the next

Each level of Technical Theater teaches through doing. Students study the many facets of theater stagecraft as they design, build, sew, and paint for Prep stage productions. They learn lighting, rigging, props and sound, scenery construction, and costume design. At level 4, senior students, proficient in the technical aspects of theater, step into leadership roles and manage one or more departments for a main stage production.



Curtain! The Production Experience

Grades 9 - 12

Students develop their skills in many facets of live theatrical production. Acting aspects include exercises, games, improv, pantomime, mime, scene work, storytelling, auditioning, method, and monologues. Extensive units in the course involve technical work, including set design, costume and makeup design, props, and lighting. Students build on the lessons touched on in the Introductory Theater class but spend more focused time on each block and attach those skills to plays and scenes. This is a strong choice for students who want to build and further develop their theatrical skills and knowledge. The class can be repeated at different levels for added skills and development.

Curtain! The Production Experience, Take 2

Grades 10 - 12

Students who have already taken "Curtain! The Production Experience" for a year are encouraged and welcome to take this course, where they will continue to develop their skills in many facets of live theatrical production. This course takes place at the same time and within the same block as "Curtain! The Production Experience." Take 2 students continue to work on acting and design elements of live theater while also developing a greater sense for writing and directing for the stage. This is a strong choice for students who want to not only build and further develop their theatrical skill and knowledge but push their knowledge into the realm of student production, completing the year with a student-produced one-act play or 10-minute musical.

Landmark Musicals Experience

Grades 9 - 12

Semester-long (Offered in Fall and Spring)

Students receive 0.5 credit for the semester's work, which involves being a significant part of Landmark Musicals, a locally owned and operated community theater company (landmarkmusicals.org) with strong ties to the Sandia Prep community. The student's role can be either technical or performative but must be established before rehearsal or the work begins and must be completed to establish expectations through the final performance of the production. Students will either be paired with a professional technical designer or a production team member or be an integral member of the cast after the initial audition process. The student will also check in weekly with a Prep theater instructor to reflect on and discuss their progress and learning throughout the process.







VISUAL ARTS

At Prep, art hangs from the trees in the Quad and from the rafters in the Anderman concourse. Paintings line the walls of our Russell Student Center. Sensitive and compelling self-portraits, in black and white photography or clay, fill the gallery. Ceramic totem poles peep from the plants along the walkways. Interesting items find their way out of our recycle bins to become campus sculptures.

We encourage students to build strong portfolios, and, through participation in group critiques, develop a language for speaking about art. Even as we teach our students the fundamentals of good design, we encourage them to take artistic risks, and to discover new inspirations and aesthetic awareness.



**Prep art students ensure
that art surrounds the
school, offering a spirit
and energy that carry
us through every day.
Our art classes foster
students' need to
nourish their creativity
and to believe in
themselves as artists.**



6th Grade Art

Grade 6 rotation course (Info on page 3)

Students create sculptures, pottery, drawings, and paintings in the art rotation. They work with a variety of materials and methods, including clay, graphite, charcoal, chalk, and paint. The focus is on exploring creativity while learning the technical aspects of artistic processes.

7th Grade Photography

Grade 7 rotation course (Info on page 3)

This introduction to black and white photography offers the use of a 35 mm camera, working in a darkroom, learning pinhole cameras techniques, and creating enlargements.

7th Grade DesignLab

Grade 7 rotation course (Info on page 3)

In the DesignLab, students see the connections between subjects and understand how disciplines interact with each other while also seeing how we can improve the world around us. Following in the footsteps of Leonardo Da Vinci, this class blends art and engineering to expose students to the ways in which engineering can be used to enhance artistic expression. Students develop a basic understanding of the design process while improving their ability to draw and think about space and form and bring awareness to global issues.



8th Grade Art

Students work on developing their skills in drawing, painting, ceramics, and sculpture. During the second semester, students explore how to use their art to make positive changes in the community. They discuss the issues facing our city and state and learn about artists who are using their art to raise awareness and make an impact. Students select an issue they care about, research the issue and artists working to bring about change on their topic, present their research to the class, and then make their projects. The class culminates with an exhibit of projects.

Form & Function Pottery

Grades 9 - 12

Semester-long (Offered in Fall and Spring)

Students learn how to make ceramic functional ware using a range of techniques such as the potter's wheel, slab roller, and plaster molds. Students also explore the aesthetic values of a vessel and the cultural history of ceramics by exploring how a vessel is made, what makes it beautiful, and how they can use it in their daily practices.

Sculptures in Clay

Grades 9 - 12

Semester-long (Offered in Fall and Spring)

Students create ceramic sculptures that are figurative, abstract, and expressive. They learn multiple techniques in the fabrication of ceramic sculptures, such as the coil method, slabs, relief carving, and the hollow-core method, and they explore a brief history of ceramics and its unique material characteristics.

Architectural Studies

Grades 9 - 12

This course is based around the three main principles of architecture: form, function, and material. The class explores a brief history of architecture and how it impacts our lives on a daily basis. Students learn how to use architecture to connect people and improve their lives while considering which materials have a minimal environmental impact. Learners design, sketch, render, and fabricate architectural structures that show aesthetics in its form, serve its function, and consider which materials would be ideal to support their ideas and designs. The class also includes field trips, guest architects, and presenting final designs to a panel of professionals in the field.



Industrial Design

Grades 9 - 12

Industrial Design combines art, engineering, and design elements to create furniture that possesses aesthetic value, serves a specific function, and benefits the broader community. Students collaborate with nonprofit organizations and community service groups in designing and building modern furniture and products for those in need. Students learn hands-on skills, find their passions, and apply them to a meaningful contribution to the community. Through the lens of industrial design, students develop aesthetic value, technical competence, and analytical thought while building empathy for a cause that is close to their hearts.

Drawing & Painting 1

Grades 9 - 12

The focus of Drawing & Painting 1 is on creating well-rounded art students who understand the principles of design and composition. Students work on their observational drawing skills, while also exploring abstraction and stylization in their imagery. Students also learn fundamental painting skills—like how to stretch a canvas, how to mix colors, and how to control their edges and paint with accuracy. This class spends a good deal of the second semester looking at portraiture and the proportions of the human face, before culminating in a larger-than-life portrait of a person of their choice.

Drawing & Painting 2

Grades 10 - 12

Prerequisite: Drawing & Painting 1

Drawing & Painting 2 builds on the curriculum from the first level, delving more deeply into different techniques that help students achieve realistic effects in their artwork. Art students learn how to enlarge an image using the grid technique and how to layer paint to create volume and form. They have plenty of opportunities to hone their drawing skills at this level, specifically through the use of cross contour lines, value mapping, and a strong light source. Students also explore the use of glazing—a technique that uses translucent layers of paint to create a luminescent effect.

Advanced Drawing & Painting

Grades 11 - 12

Prerequisite: Drawing & Painting 2

In this class, students strengthen their individual practices and unique artistic voice within the framework of each assignment. At this level, students tackle large-scale work using a variety of materials and surfaces, and work on projects aligned with their individual interests. They also look into contemporary artists who use their art to convey messages about positive change in their communities. This class focuses on discussions and critiques to prepare students to discuss their ideas and learn from one another's artistic process and vision.

Photography 1

Grades 9 - 12

This class explores photographic techniques in a fully-equipped traditional darkroom. Film cameras, development chemicals, and enlargers are used to explore the concepts and aesthetics of traditional black and white photography. Students also explore digital photography through cell phones and apps such as Snapseed. Students meld design concepts with various techniques to create photos that challenge and inspire.

Photography 2

Grades 10 - 12

Prerequisite: Photography 1

In this class, students build upon their darkroom and digital skills while exploring historical processes such as cyanotypes and hand-coloring. Students also explore contemporary concepts of identity and place while improving their printing skills.

Advanced Photography

Grades 11 - 12

Prerequisite: Photography 2

In this class, students improve their darkroom and digital photo skills while working on creative projects. They complete a self-defined long-term project and create a physical/digital portfolio. Students also explore new shooting and printing techniques, such as the use of Holga cameras and gum bichromate.



DIGITAL MEDIA & COMMUNICATION

DMC courses allow students the freedom and creative space to design, problem solve, and confidently maneuver the world of global communication. They create effective visual presentations, write clearly for a specific audience, and create, manipulate, and analyze digital images.

From traditional reporting, writing, and photography to cutting-edge computer design and programming, students explore the capabilities of professional tools and platforms. All courses in this department are project- and product-based, challenging students to apply their skills and knowledge to real-world demands.



Because the ever-expanding world of communications is one without boundaries, today's students must be prepared to adapt to all emerging forms of media.

6th Grade Digital Media & Communications

Grade 6 rotation course (Info on page 3)

This rotation gives students an introduction to Prep's lauded digital media and communications program. In addition to reinforcing touch typing skills, students learn about creating animations, editing video clips, designing graphics, and even some basics of computer programming.

7th Grade Digital Media & Communications

Grade 7 rotation course (Info on page 3)

This is a nine-week course designed to introduce students to the basic applications of today's desktop computer. Students learn a variety of basic computer skills, including graphics, animation, and computer programming. They then apply these skills to marketing a product of their choosing and create a webpage in HTML. Additionally, students spend time learning the inner workings of the computer and how data gets processed and stored.

8th Grade Digital Media & Film

Students who take this elective be introduced to digital filmmaking techniques and processes, from scripting and storyboarding to shooting and editing. Students must pass filmmaking boot camp with lessons covering equipment, lighting, audio, camera shots, and editing. Students use state of the art cameras and software in the Digital Media labs to create video projects, such as movie trailers, commercials, music videos, and short stories. This course also focuses on multimedia production, preparing students for graphic design, digital imaging, animation, desktop publishing and web-page design. Students learn how to harness the power of Adobe's Creative Cloud Suite.

Graphic Design

Grades 9 - 12

Semester-long (Offered in Fall and Spring)

Students with an interest in Photoshop and Illustrator develop skills using Adobe's powerful applications in graphic design projects including movie posters, magazine covers, and photo colorization. Units include digital photography, advanced layer applications, and masking techniques, as well as mastery of the pen tool and the shape builder tool.





Computer Animation

Grades 9 - 12

Semester-long (Offered in Fall and Spring)

This class introduces the basics of computer animation, starting with simple GIF animations in Adobe Photoshop and progressing to Adobe Animate, where the foundations of keyframes, shape tweens, motion tweens, and the bone tool are presented. Students also experiment with Adobe Character Animator. Animator revolutionizes live-performance animation with automatic lip sync and face and body tracking, powered by Adobe Sensei AI. Each student produces a stop-motion animation film for their final project.

Media Production

Grades 9 - 12

For students interested in media production, this is the class. Students enrolled in this elective produce the school multimedia news broadcasts for the Sandia Prep community. The course covers media ethics; media literacy; news and feature photography; the use of digital video cameras; sound and video editing; interviewing techniques; lighting effects; and public speaking and presentation skills. Student roles include news anchor, camera operator, reporter, editor, and web host. Students gain proficiency in professional design, video, and audio editing software, including Adobe Creative Cloud Suite: Premiere, Photoshop, and Audition.

Advanced Media Production

Grades 10 - 12

Prerequisite: Media Production

Advanced Media Production builds on the various techniques and programs introduced in the Media Production course. Students will begin creating video news stories from day one and will help create the "Access Prep" Video News Magazine.

Applied Digital Design

Grades 10 - 12

Prerequisite: Graphic Design or teacher permission

Each student in this hands-on digital marketing lab works with designated athletic teams, clubs, organizations, and Prep's Marketing and Communications Department to create content for Sandia Prep's external and internal communications. Students shoot video, take photographs, and develop their skills with the Adobe Creative Suite to produce multimedia and desktop publishing projects. Students produce and manage the multiple aspects of modern marketing while incorporating digital design.

Advanced Applied Digital Design

Grades 11 - 12

Prerequisite: Applied Digital Design

Advanced Applied Digital Design builds on the various techniques and programs introduced in the Applied Digital Design course.

Digital Filmmaking

Grades 9 - 12

In this course, students who love film explore all the elements of writing, directing, and producing a film of their own. Students create short movies, work in collaborative groups to brainstorm, write, shoot, plan camera techniques, and edit. The class also participates in several film festivals, contests, and showcases, including Prep's own Captured Sparks Festival.

Advanced Digital Filmmaking

Grades 10 - 12

Prerequisite: Digital Filmmaking

This filmmaking course emphasizes many of the core technical skills learned in prior film classes. Students explore developing story and character in more depth and learn to produce in a variety of genres. Special emphasis is placed on writing, shooting, and editing dialogue. As students progress, they gain more experience as directors, production designers, cinematographers, and editors. Additionally, students learn a variety of film crew jobs, from sound and lighting to building a camera for a shoot. Serious film students may take this course for three consecutive years.

Video Editing

Grades 9 - 12

Semester-long (Offered in Fall and Spring)

In this course, students learn how professional editors work their magic as they cut and build clips into short scenes and films. This course covers the editing process from start to finish. Students learn a wide variety of editing skills: logging clips and trimming, color correcting and grading, adding titles and effects, and mixing audio. Using Adobe Premiere Pro, the powerful industry-standard video editing software, students learn how to turn ordinary clips from a variety of sources into professional-quality videos.

Special Effects & Motion Graphics

Grades 9 - 12

Semester-long (Offered in Fall and Spring)

Students learn how post-production editors create special effects for film, television, and video. They also learn the fine art of keyframe animation, applying this technique to objects, text, and video clips. Utilizing Adobe After Effects, the powerful industry standard motion graphics software, students design a variety of creative projects that incorporate animation, motion tracking, and other effects.

Yearbook

Grades 9 - 12

This journalism class is responsible for producing the school's yearbook, The Sandglass. Students work together to complete a 200-page, all-digital, full-color publication for distribution at the end of the school year. Students use Adobe InDesign and Photoshop to create layouts and headlines, digitally crop and prepare photos for placement, and write captions and yearbook copy to capture the events and highlights of the school year. In addition, staff members are responsible for taking photos, conducting interviews, organizing senior pages, and working with parents on the senior ad section. Staff members work cooperatively with editors and the advisor to make sure that all deadlines are met.





INTERDISCIPLINARY STUDIES

By the students' final year, seniors dive into a project of their design which speaks to their cumulative experience and interests over their time at Prep. Whether it is the Senior Experience project, the two-year Odyssey Scholars Program, or a one- or two-semester

independent study, graduating Prep seniors always impress the Prep community when they present their personalized, long-term academic and arts projects unveiling their shared skill, knowledge, and maturity.



**Interdisciplinary
Studies at Sandia Prep
are directly reflective
of the school's ethos
inspiring student
individuation
and encouraging
curriculum depth.**

8th Grade Experiential Leadership

This course develops leadership and teamwork by using outdoor skills to develop the leadership capacities of 8th grade student participants. Students take part in a weekend outdoor trip of their choice (climbing, hiking, kayaking, or caving). This trip will be driven by the class, and only members of the class will participate. Students in this elective also help organize and run the 6th grade Outdoor Leadership Program trip in May, practice outdoor skills, learn about leadership styles, and practice leadership skills.

Odyssey Scholars Program

Grades 11 - 12

A two-year long course

The Odyssey Scholars Program is a two-year, in-depth project that spans students' junior and senior years. Once they apply and are accepted, the Scholars choose an area of study they're passionate about and then, under the close guidance of the program director, develop their own wide-ranging research courses. From biology and mathematics to history and literature, performing and visual arts to digital media, the possibilities are as wide as students' interests and imaginations. Odyssey Scholars challenge themselves academically, intellectually, and creatively to become a part of the global discussion associated with their chosen fields.

Independent Study for Seniors

Grade 12

Seniors wishing to explore an area of study more deeply may do so for one year or one semester through independent study. To register for independent study students must: Choose a faculty mentor; submit a proposal outlining the purpose of the course, the materials used, assignments, assessments, and a schedule of meetings with a faculty advisor; and complete a registration form.

Seniors must take six courses in addition to the independent study.

Senior Experience

Grade 12

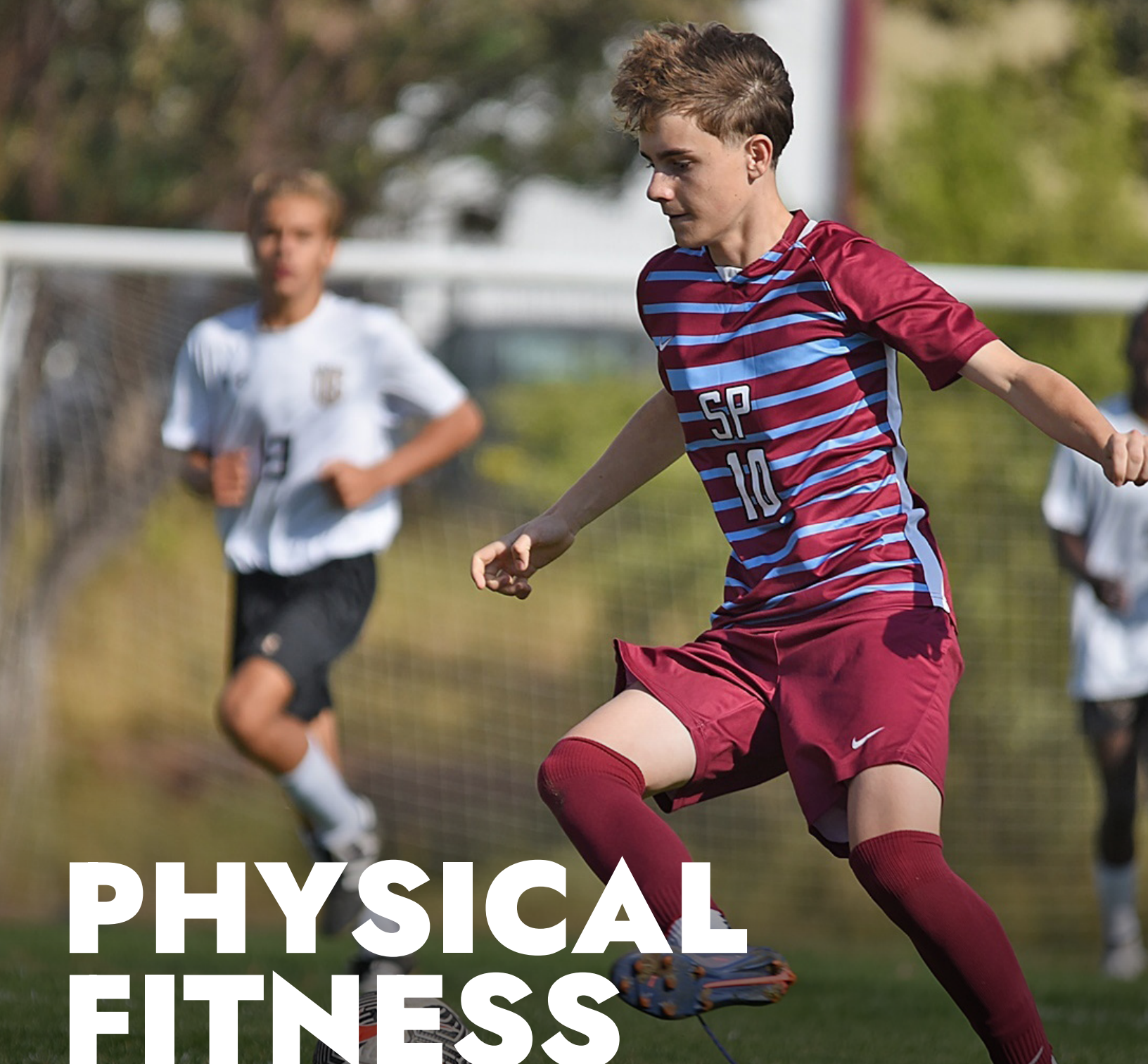
The final month of the senior year is devoted to allowing students to pursue their particular passion. Each senior chooses a project to complete or a topic to research, and under the guidance of a faculty supervisor, works independently off campus. Senior Experience culminates with a night of student presentations for the school, parents, and the community, who gather to listen to the seniors share the lessons they learned, the music or book they wrote, the connections they made, and the new awareness and insights they gained.

Advanced Outdoor Education

Grades 11 - 12

This outdoor education course will hone leadership abilities, outdoor adventure education skills, and provide a deeper understanding of the outdoor opportunities and issues in our state. Students will engage in peer-led education and activity facilitation using experiential education models. In addition, the course will dive into leadership development, communication, teaching, and understanding issues and opportunities in state and local outdoor recreation through engagement with legislators and organizations. Students will have many opportunities to plan and teach lessons, create outdoor education activities, and receive constructive criticism as they progress through the semester.





PHYSICAL FITNESS

The benefits of a good physical education program have long been self-evident. Students exercising together encourages positive socialization and helps reduce stress. Our Physical Education program develops gifted athletes and also provides a safe, constructive, and competitive

outlet for every participating student. By emphasizing the development and maintenance of an active and physically fit body, we encourage students to build good health habits that carry over into adulthood.



The Physical Education program strives to educate students about their bodies, to teach them lifelong habits of fitness, and to create enthusiasm for physical activities.

6th Grade Physical Education

In this course, students learn basic movement and sports-related skills, such as ball handling, agility, balance, and hand-eye coordination so they may compete in, understand, and enjoy as many activities as possible. The class also focuses on lifelong fitness and wellness and fitness assessments. Among the activities are basketball, floor hockey, soccer, volleyball, and track and field events.

7th Grade Physical Education

This course stresses improving and refining individual skills and game strategies. Students are also introduced to new and more complex skills, thus enabling them to develop confidence and a sense of mastery in the activities pursued.

8th Grade Physical Education

In this course, students continue to focus on improving and refining individual skills and game strategies while participating in nontraditional team sports, such as team handball, korfbal, and Ultimate Frisbee.

Athletic Activity as P.E. Credit

Grades 9 - 12

Sandia Prep offers one P.E. credit maximum for any upper school student who participates in an athletic activity, which is defined as "competing against an opponent(s)." Students must complete two sports seasons in one year or one sports season per year over two years to receive the credit. Students must have completed one season and earned ½ credit for P.E. by the end of their ninth-grade year and fully completed the departmental requirement by the end of their 10th-grade year. Students participating in athletics outside of Sandia Prep must have a P.E. Exemption Form (available on the PrepNet Parent Portal) signed by their parent(s)/guardian(s) and coach(es). All athletic activities must be approved by the Athletic Director/ P.E. Department Chair to receive the credit. This does not apply to eighth-grade students who are participating at the upper school level.

Fitness for Life

Grades 9 - 12

Fitness for Life is an Upper School Physical Education elective course designed to introduce students to different aspects of physical fitness applicable to daily life. Through a variety of activities, the student is exposed to the main components of physical fitness, including agility, muscular strength, muscular endurance, flexibility, and cardiovascular endurance. Activities include but are not limited to weight training, yoga, pilates, speed training, plyometrics, and aerobics, which occur in specific time frames. Students demonstrate capabilities of analyzing fitness components, goal setting, and applying classroom activities to their general well-being.



YOUR FUTURE STARTS HERE

What makes us who we are is your intelligent, talented, curious, creative, individual child. We don't expect your child to fit a mold. We mold our community and our curriculum around your child.



We can't wait to meet you!

Schedule a personal tour

[SandiaPrep.org/Visit](https://sandiaprep.org/visit)

Many first-time visitors to our 32-acre campus marvel at how much there is to see. Our students have access to a wide range of top-notch amenities.

Get your questions answered

505.338.3007 | admission@SandiaPrep.org

Our admission team is standing by to walk you through all your questions and application.

We are committed to access and affordability

42%

of students receive financial aid

\$10,500

awarded per student on average

\$2.3 Million

per year awarded

10–75%

of tuition covered by aid

Ready to apply? Let's get started:

- **Apply online** at sandiaprep.org/apply
- **Register for an admission test** date via the Admission Portal.
- **Request records** from your child's school.
- **Email teacher recommendation forms.**
- **Schedule** your child's student interview and visit day.
- **If applying for financial aid**, submit Clarity application at app.clarityapp.com/sign-up



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