



Upper School Course Offerings
2026-2027

Lab School Graduation Requirements

Diploma Requirements: The Lab School of Washington meets the requirements of the Middle States Association of Colleges and Schools. Students take 7-8 credit courses each year, and a minimum of 24 credits is required for graduation. In addition, all students are required to complete 100 community service hours.

Required Courses/Credits:

- 4 English
- 4 Math (including Algebra I, Geometry, Algebra II)
- 4 Science
- 4 Social Studies
- 2 World Language
- 1 PE
- .5 Health
- 2 Internship
- 2-4 Arts/Electives

Students placed by a jurisdiction through the IEP process may have additional specific graduation requirements in order to earn a state diploma.

English

Developing Literacy:

The Developing Literacy class focuses on the development of independent reading skills. The Orton-Gillingham approach and a variety of commercially-produced and teacher-created materials are used to develop decoding, reading fluency, vocabulary, and comprehension skills. The class is a word study curriculum appropriate for high school students who need explicit decoding and spelling instruction. Students will read and write syllables, words, phrases and sentences to achieve proficiency and automaticity. Reading comprehension is focused on throughout the course. Students will read short, mostly non-fiction, passages and answer written comprehension questions in class.

English 9:

Through selected essays, short stories, and novels, students read about real and fictional individuals who face hurdles and/or are marginalized because of race, national origin, ability, gender, or religion. The literature is paired with a lesson or reading to help students understand the historical context that has shaped the writer or character and influenced their thinking and actions. The literature is a springboard to develop comprehension, thinking, vocabulary, and writing skills. Structured writing prompts require students to develop clear topic sentences, provide logical supports that include examples and text-based evidence, integrate vocabulary, use complex sentence structures, and apply the conventions of writing. Overall, the class focuses on building critical reading and writing skills while developing skills as thinkers, readers, writers, collaborators, and citizens of the global community.

English 10:

English 10 is a literature-based curriculum centered on the guiding questions: What is the value of being informed? and, How does one create change once they become informed? Students examine dystopian literature, near-future science fiction, and investigate activism through short stories, novels, TED Talks, and films. The literature is used as a starting point for discussions and lessons that develop critical analysis, comprehension, vocabulary, and writing/creation skills. Students are taught to continue to hone their skills writing clearly-stated introductions; developing supporting ideas using details, examples, and relevant textual evidence; and writing conclusions. The mechanics of writing, as well as smoothly incorporating learned vocabulary, transition words and phrases, are also emphasized through practices inspired by The Writing Revolution.

English 11

In this course, students explore, criticize, and identify with American literature. Students analyze language as a tool for culture making and critical thinking. There is no one “American story,” so as students explore language and storytelling they will question both story and storyteller to understand a more complex human experience. Students examine literature that explores themes like the American Dream, immigrant experiences, social justice and activism and others. Students will continue to develop their academic writing with a focus on literary analysis, reflective writing, both creative and critical research and expanding their understanding of media as text. Students will work on several creative projects including collages and the junior thesis, a research-based presentation.

The texts we read will allow us to evaluate how Americans have defined themselves both as individuals and in relation to others. The topic of American subjecthood is a fecund one! Identity, selfhood, and navigating the world will all be central topics that will recur through our discussions. The course will focus primarily on the study of fictional texts: short fiction, novels, plays, and poetry. In addition, though, we will examine examples of rhetoric from American history in order to learn how speakers choose language to appeal to specific audiences.

Completing the Junior Thesis makes up an important part of the work students do in English 11. Students will gain experience in developing a research project from brainstorming an initial topic to writing a researched argumentative essay with sources. Additionally, students will prepare a presentation for their peers that will focus on explaining their topic, thesis, conclusions, and research process. This project allows students to practice skills that are foundational for success in college or career. While students will compose thesis-driven literary analysis essays throughout the course, this project will grow out of a nonfiction study so that students gain additional skills of source evaluation, source synthesis, and researched argumentation.

English 12:

12th-grade English consists of academic research and literary exploration. A major component of this course is the Senior Thesis, which consists of a research paper, applied project, and presentation. This is an ongoing project that is situated in the second and third quarters, concluding with a final symposium at the end of the third quarter. Prior to beginning the Senior Thesis, students work collaboratively to investigate a class research topic in order to make meaning together as they develop familiarity and ease in accessing, notetaking, and synthesizing a variety of source types. This investigation culminates in an individually penned feature story and a class lesson designed to equip students with a low-stakes opportunity to practice their writing and presentation skills before taking on an individual research project. The Senior Thesis is an opportunity for students to blend the academic skills of research, writing, presentation, revision, and editing with professionalism skills such as goal setting, planning, time management, and collaboration. Seniors choose an arguable topic about which they are passionate and curious. Students investigate this topic through academic and applied research throughout the course through one of three paths: traditional, arts, or STEM. This process strives to equip students with the knowledge and skills they need for success in future work or academic endeavors.

Alongside Senior Thesis research, students engage with literature and social science theories through investigations of questions relating to identity, society, connection, and transition as they prepare to transition from the Lab School. The students begin this work by reading both graphic and narrative memoirs and excavating their own lives to develop their own memoirs. Webster's Dictionary defines *transition* as "a change or shift from one state, subject, place, etc. to another." Transitions can range from the minuscule, i.e. eating a different cereal to the enormous, i.e. moving countries, leaving a relationship, etc. Although BIG life transitions often get the most attention, the truth is, we are all constantly growing, shifting, shedding, and changing. At this moment, students are peering into the future at one of the most significant and momentous transitions of their life. Inevitably, their minds are full of questions and anxieties about what their lives will look like a mere six months from now. Luckily, millions of others have made similar transitions and recorded their reflections and lessons in literature, film, and art. In this course, we will examine these works to consider: How can we take control of *how* we weather transitions? How do we leverage our experiences and support systems to navigate transitions with confidence and calm? Who are the people/connections that will buoy us during this change? How will we create new, meaningful connections and sustain existing ones?

Oral Advocacy:

How can we talk in a way that makes people want to listen? How do spoken words inspire, challenge, motivate, and change people? These are the questions that we will explore in “Oral Advocacy,” an elective course centered around the art of persuasive public speaking. Using the foundational, Ancient Greek concepts of *Ethos* (credibility/expertise), *Logos* (reasoning/argumentation), and *Pathos* (emotion/values) as our guide, we will explore what makes someone an effective public speaker in a variety of contexts, and then put those concepts and skills into practice. Throughout the course, students will have the opportunity to be “on their feet,” working on developing their public speaking abilities while crafting their own, original speeches and arguments. Major projects will include developing expert presentations, persuasive speeches, formal debates, and crafting personal narratives.

Math

Basic Algebra:

This course is designed to support students who are developing algebraic thinking and problem solving skills. Students will learn about variables and other important mathematical symbols and how to apply them in simple formulas and equations. They will become familiar with graphing equations on the coordinate plane and explore functions. This course also continues work on foundational skills like understanding the number system with an emphasis on integer calculation, ratios and proportions.

Algebra I:

In Algebra I, students learn to comfortably work with the language and structure of algebra. Students will expand their understanding of variables, rational numbers, and simple equations to solve multi-step equations and inequalities. Special emphasis is placed on representing functions and solutions to problems through graphs of linear and quadratic equations. Other important course topics include systems of equations and inequalities, applying laws of exponents, and performing operations with polynomials, including factoring.

Basic Geometry:

Basic Geometry provides a comprehensive and deliberately paced approach to learning Geometry. Students will learn and apply specific vocabulary and notation and extend their Algebra skills as they develop spatial reasoning. Students will also use the fundamental properties of shapes to make sense of relationships among shapes and figures. Finally, students will explore the structure of proofs and logical arguments based on definitions, properties, postulates, and theorems.

Geometry:

This course focuses on investigating and assimilating logical reasoning and spatial visualization skills. By exploring definitions, properties, theorems, and postulates students develop problem-solving, critical thinking and decision making skills by connecting concepts to practical applications. Some of the standards covered in this course are tools of geometry, parallel and perpendicular lines, properties and relationships of triangles and quadrilaterals, right triangles and basic trigonometry, and measurement. In addition, students experiment with the construction

of basic designs. The goal for this class is to use the tools and vocabulary of geometry to effectively collaborate, communicate, and justify solutions and strategies.

Algebra II:

Algebra 2 extends the knowledge of Algebra 1 and serves as a bridge to Trigonometry/Pre-Calculus and other higher-level math courses. The mission of this class is to assimilate all new information through the lens of parent functions and explore the effect transformations have on a variety of functions. Algebra 2 expounds on linear, quadratic, and exponential equations to introduce polynomial, rational, and radical functions. The goal is to build on understanding of functions and ability to model, solve, and graph more complex representations. Students will be introduced to solving quadratic equations with complex numbers and exponential equations using logarithms.

Trigonometry/Pre-Calculus:

Trigonometry/Precalculus is designed to prepare the student for Calculus and upper-level mathematics. It is a collection of advanced algebra and trigonometry topics. There is also an emphasis on graphing and understanding the behavior of functions.

Calculus:

Calculus is the study of change. In this introductory course, students explore the fundamental topics of limits, derivatives, and integrals, as well as their diverse applications to physics, economics, medicine, biology, etc. Potential extra topics include vectors, parametric and polar functions, and sequences and series.

Probability and Statistics:

In this course, students study concepts like probability, combinatorics, probability distributions (both discrete and continuous) as well as data collection/analysis, statistical graphs, bias, correlation, and prediction, all of which strengthen one's understanding of the world. Class activities will vary from projects and exploratory activities, allowing students to construct their own understanding of concepts and how they apply in real life applications. One great thing about studying statistics is that it's applicable to everything, both the natural and social sciences, so students are invited to bring their own interests to the course!

Science

Earth Science:

Earth Science is a course designed to develop students' knowledge of the physical planet. Throughout this course, students explore the organization of and relationships between the atmosphere, the hydrosphere, the geosphere and the biosphere. The assignments throughout this course prompt students to not only read, write, and communicate scientific concepts, but also practice certain laboratory and research skills. Through these independent and collaborative assignments, students address major concepts from various science disciplines including physics, chemistry, biology and astronomy. As students progress through the course content, the teacher

highlights the ongoing influences that continue to shape and change the planet, and prompts students to forecast what Earth will physically become in the future.

Biology:

The biology course, with its focus on evolutionary biology, encompasses a wide range of topics, from cell structure to genetics; from taxonomy to ecology. Different scientific concepts are approached through a multi-modal methodology, coupled with a rigorous scaffold-based academic experience. The structure of the class will foster development and honing of a variety of study skills, while continuing to foster students' critical thought processes through scientific inquiry. Additionally, students will apply specific study skills to learning certain concepts throughout the academic year in order to facilitate their mastery of the content.

Environmental Science:

Environmental Science is a course designed to develop students' knowledge of the Earth's ecosystems. Throughout this course, students explore the organization of and relationships between these ecosystems and their respective parts. The assignments throughout this course prompt students to not only read, write, and communicate scientific concepts, but also practice certain laboratory and research skills. Through these independent and collaborative assignments, students use systems-thinking to analyze the scientific and sociopolitical complexities of global environmental issues. As students progress through the course content, the teacher presents the viewpoints on current environmental concerns from multiple perspectives, and prompts students to develop their own individual stances on how human populations are to respond to these concerns.

Applied Chemistry:

Applied Chemistry is a course that will cover the basic concepts of chemistry that are needed to understand and interpret the chemical interactions that occur in the world around us. The year will start by covering matter and properties. It will continue into atomic structure and chemical bonds. The year will finish by examining chemical reactions, how they can be predicted, modified, and measured. Applied Chemistry focuses on the application of chemical concepts to our everyday lives; including discussions on medicines interactions in the body, how cleaning products are designed for different purposes, and kitchen chemistry. Through hands-on activities, students will develop their observational and laboratory skills.

Chemistry:

The purpose of this class is to provide an overview of chemistry starting with an introduction to matter and measurement. We will investigate the atomic nature of chemicals and their properties. Students will engage in hands-on activities that enhance learning of the concepts covered in class. The class will begin with an introduction to chemistry with a unit on measurements, calculations, and matter. We will proceed with chemical foundations by exploring atomic theory, structure, and how atoms form compounds. As we progress in the year we will proceed with chemical equations and chemical quantities. Students will develop fluency in the language of chemical reactions by predicting, analyzing, and interpreting reactions in the laboratory.

Conceptual Physics:

This class explores how the world works without getting bogged down in complex math. Students will learn about the "big ideas" of physics, including how things move, the way energy changes form, and the secrets of light and sound. Instead of just memorizing formulas, students will look at real-life examples to see physics in action all around us. By the end of the course, students will understand the rules of the universe and be able to explain the "why" behind everyday events.

Physics:

Physics is the oldest science and is the basis of all of the other sciences and all of technology. It's a huge subject that encompasses everything from the smallest particles like quarks to the large-scale structure of the universe. Instead of trying to cover it all, we will focus primarily on an area known as "Mechanics" which is the basis of all of the other topics. Mechanics is the part of physics that deals with forces and how they affect the motion and other behaviors of objects. It won't be hard for you to see how there is a whole lot going on around you that you never realized was happening. And you know that math you've been learning for the last 12 years? Get ready to use it! Math is the language of Physics and the physical world cannot be fully understood or even appreciated without it.

Applied Math and Science Seminar:

This course explores the inextricable link between mathematical theory and scientific discovery, designed specifically for students who have already completed Physics and Calculus. Moving beyond standard curriculum, the seminar focuses on the art of mathematical modeling—the process of using tools such as vector analysis, parametric systems, and dimensional logic to describe and predict complex physical phenomena. Students will learn to navigate and evaluate authentic scientific literature, gaining the skills necessary to extract essential information from academic journals. Through independent research projects, students are encouraged to pursue specialized topics of their own choosing, culminating in the synthesis and communication of complex ideas.

Social Studies

Ancient World History:

Ancient World History explores history and geography from prehistoric times through the Renaissance period with emphasis on the impact ancient civilizations have had on the development of the modern world. Students will use texts, maps, pictures, stories, diagrams, and charts. Chronological skills, inquiry/research skills, and technology skills will be emphasized.

Modern World History:

Building off the themes and skills of Ancient World History, Modern World History extends understandings gained in the previous course into the Contemporary Age. Coursework is guided by numerous inquiry questions throughout the year that highlight the importance of connectivity and empathy development as students navigate the greater world around them. Throughout the course, students interact with primary source artifacts such as letters, music, and art; analyzing the author's point of view, purpose, and audience within a particular historical context. Students

work with secondary and tertiary sources to better develop media literacy; learning how to be critical of sources to determine reliability and purpose and transforming students into more intelligent consumers of information.

U.S. History:

This is a survey course covering American history from 4,000 B.C. to present day grounded in place-based curriculum and design. We will examine the physical and conceptual places that make up America and unpack the historical roots of contemporary issues and questions to better understand the connections between past and present.

Government:

This is a civics course covering the history, functioning and structure of local, state and national governments rooted in democratic dialogue and active civics. The class will unpack how governments do and do not work, the intersection of politics and government. address pressing contemporary questions regarding all levels of government through authentic student action.

Ethics:

Students will explore Ethics through both theoretical frameworks and their practical applications. On a daily basis, students will have the opportunity to research and debate specific social and political scenarios involving issues of morality, and view these controversies through different frameworks. We'll also develop strategies for students to use when interacting with individuals who don't share their values, and begin thinking about how to function in a society often at odds with your own perspective. Students will use this knowledge and skills to work by competing in the annual Ethics Bowl at American University in February, to qualify for the National Ethics Bowl in North Carolina.

History vs Hollywood:

This is a film-theory course in which students will research, view, and discuss visual media to better understand the multiple purposes for which they were created. Students will work to contextualize the time and place in which they were made, the perspectives and limitations of the creators, and the changing responses of audiences over time. This student-driven course will seek to address an overarching question: to what extent do film and television reflect and challenge our changing societies?

Languages

American Sign Language I:

The American Sign Language Level 1 (ASL1) course is designed to introduce Upper School students to the language and culture of the American Deaf community. Students will develop basic ASL skills, including fingerspelling, vocabulary, and sentence structure, as well as facial grammatical markers, use of space, the ASL visual timeline, and more. Students will also learn about the history and culture of the Deaf community in America including ABC stories and ASL idioms.

American Sign Language II:

The American Sign Language Level 2 (ASL II) is a continuation of ASL I. Students will build on previous vocabulary and grammatical features acquired in ASL 1, and learn more vocabulary, grammar, sentence structure, cultural and historical foundations of ASL with a greater emphasis on the development of their expressive and receptive skills. They will demonstrate the ability to better understand signed phrases, sentences, and to respond appropriately by observing ASL sentence structure and its grammatical rules, including proper use of classifiers.

American Sign Language III:

The American Sign Language Level 3 (ASL III) is a continuation of ASL II. In ASL 3 Students will build on prior knowledge and skills acquired in ASL 1 and 2, and will be introduced to the intermediate skills of developing production and comprehension. Students will learn culturally appropriate behaviors, culture and history of the Deaf communities. Students will also continue to learn through in person classroom conversation with their peers and instructor in class, as well as practice expressive and receptive ASL skills via video recordings.

American Sign Language IV:

The American Sign Language Level IV (ASL 4) is a continuation of ASL 3. Each unit will focus on different language skills such as building narrative skills, moving from an informal to a more formal presentation, developing conversational skills used in every discussion. Several units will focus on developing the language skills needed to explain ideas and concepts. Students will build on prior knowledge and skills acquired in ASL 1, 2 and 3, and will develop greater receptive and expressive skills for daily conversations on a variety of topics. They will expand their use of complex grammatical features of ASL, including storytelling conventions, types of discussion. Students will learn culturally appropriate behaviors, culture and history of the Deaf communities. Students will also continue to learn through in person classroom conversation with their peers and instructor in class, as well as practice expressive and receptive ASL skills via video recordings. Learning will be extended beyond the classroom by having students attend events in the Deaf community. On these field trips, they will observe how ASL is used in the real world and have the opportunity to practice their signing skills with native Deaf signers.

Spanish I:

An introduction to the Spanish Language and language learning in general. While students engage in all forms of communication (written and spoken), this course is taught using Comprehensible Input through storytelling and creation by the teacher and students. Beyond stories, students learn the nuances of the Spanish language and engage with global culture through limited direct instruction of grammar as well as a variety of media including, but not limited to, film shorts, music and other authentic realia.

Spanish II:

Students will expand on what they learned in Spanish I. They will continue engaging in all modes of communication: reading, writing and speaking. Like Spanish I, Spanish II is taught using Comprehensible Input, at a more complex level, through meaningful narratives and interactions between the teacher and class. Spanish II students continue to learn the nuances of the Spanish language and engage with global culture through biographies, short stories and current event articles. Limited direct instruction of grammar is used as a teaching method.

Students will also experience a variety of media including, but not limited to, film shorts, music and other authentic realia.

Spanish III:

Students continue to engage with the Spanish language through cultural investigations. Through Comprehensible Input, students will explore themes relevant to the global society we live in, while also taking a deeper dive into folklore in the Spanish speaking world. Higher level readings are introduced during Spanish Three. These readings include, but are not limited to, current events articles and language learning novels. Students will also experience a variety of media including film shorts, music and other authentic realia.

Spanish IV:

Further explore themes relevant to the global society we live in. Areas of focus include, but are not limited to, historical and current events, cultural investigations, and a deeper study of more complex Spanish grammar. In the fourth year, students read longer texts, including but not limited to novels designed for language learners. Students that complete this level will feel comfortable expressing themselves in the present tense and occasionally using past tense.

Spanish V: This course will be based on the novel *A Través de Cien Montañas* by Reyna Grande and focus on reading, writing to answer questions, and discussion. See lesson plans here: <https://reynagrande.com/books/across/lessons/>

Health/Conditioning/Physical Education

Conditioning:

General conditioning (running, walking, plyometrics as well as an introduction of the principles of High Intensity Training (HIT) and Progressive Resistance). Goal setting, program design, proper warm up, suspension cables, jump ropes and stretching and body-weight routines will also be introduced to the students. General fitness and conditioning will be the focus of the class. Students will start the year as a group and slowly and progressively work up to more challenging classes. Eventually all students will work at an individualized, level appropriate, goal-oriented pace.

Health:

In this class, the basic body systems including the respiratory system, digestive system, reproductive system and circulatory system are covered. Additionally, corresponding social and behavioral topics such as substance abuse and addiction, sexuality and sex education, nutrition, fitness, emotional wellness and mental health are studied. Topics such as safety, injury prevention, disease prevention and control, as well as personal and consumer health are integrated into this curriculum. The primary goal of this class is to reinforce student knowledge of issues they may face in the future so that they are better able to make informed decisions about their personal health.

Physical Education:

The Physical Education class will consist of General fitness and conditioning through organized sports. Group gameplay will be the focus of the class. Students will begin class with a light warm

up activity followed by the designated activity. Activities will include but are not limited to: Fitness Assessments, soccer, football (touch), Basketball, volleyball, Pickleball, Badminton, Pillow Polo, Capture the flag. One goal of this class is fitness through movement and organized game play.

Freshman Seminar

Academic Skill Development:

Academic Skill Development is a course for ninth graders to focus on learning and growing specific skills for academic success in the upper school and beyond. Students will learn and develop their own systems for organization, homework completion, and time management. The course will focus on teaching academic skills that students can practice in conjunction with their other classes.

Food, Identity, and Culture:

“Tell me what you eat, and I’ll tell you who you are,” Brillat-Savarin. In the Food, Identity and Culture course, we will look at food as a way to analyze and understand the culture and history of different racial, ethnic and national groups. We will explore how food and cooking reflect social, economic and political aspects of societies. This class will study various food staples associated with different groups of people and relate the ingredients, methods of cooking, and food customs to these groups’ cultural values, religions, geography, and other aspects of identity. In addition to our academic work in the classroom, students will occasionally cook and eat foods from different cultures, while talking about food and identity development and they will go on a few trips to restaurants and museums. This course will end with a final project and presentation, where students will share a meal that is close to their family’s identity and unpack the history behind this cultural meal.

Students should only sign up for this course if they both have an interest and some background knowledge in cooking

DC History: This course explores American civics and history through the lens of Washington, D.C. from its tumultuous founding in 1780 to present day. We will use a place-based education model to understand the layers and functions of our government and unpack the historical roots of contemporary local issues and questions to better understand the connections between past and present. Students will initiate topics, events, and driving questions in order to guide their learning. Students will use primary and secondary sources to understand and explain the history, layout, architecture, and government structure of Washington, D.C. Students will share what they learn in a variety of ways, developing their public speaking, conversation, perspective taking, reading, writing and organization skills to prepare them for high school and next steps.

Financial Literacy:

Financial Literacy familiarizes students with personal finance so they can start their post-secondary lives making informed financial decisions. Through simulation, research, discussion, and presentations, students will understand how to plan for big life events, unforeseen expenses, and how to work towards their ideal financial future. This isn’t a seminar

focused on abstract theories, it's a practical toolkit for your life. Pull back the curtain on how banks work, why credit scores can be your best friend (or your worst enemy), investing opportunities both short and long term, and how decisions such as what college you attend impact your financial journey forever. This class weaves together foundational student skills with financial literacy to help you explore the choices you are making.

Internship

Internship:

This course is a career exploration, financial literacy, post-secondary preparatory and skill building opportunity. It is designed to provide students with exposure to the world of work and all that it encompasses. Our program empowers and motivates students to define, pursue, and achieve their individual career and educational goals. This is achieved through an experiential learning process that allows students to apply core academic competencies, build professional competencies, gain occupational knowledge, and develop career networking skills.

Engineering/Robotics/Computer Science

Engineering:

Engineering is a course designed to expose students to various types of engineering and the roles they play in our daily lives. Throughout this course, students explore the connection between scientific and mathematical concepts in engineering. The assignments and activities in this course prompt students to apply the engineering design process to solving specific engineering challenges. Throughout these engineering challenges, students document not only their design and construction of their products, but also the scientific concepts and skills addressed by the engineering challenge.

Robotics:

The Robotics course has three main goals. The first is for students to compose programs using Python program VEX EXP robots in order to complete various challenges. For example, design, build, and program a robot that could be used in a warehouse to pick-up the correct boxes and deliver them to the truck. Another goal of the course is for students to learn, or continue developing, a coding language. Finally, students will develop the skills needed to work in team environments effectively. These skills include risk-taking, collaboration, communication, perspective-taking, compromise, and reflection.

Competition Robotics:

Designing, constructing, and programming robots to compete in the 2026-2027 VEX V5 Robotics Competition game "Override" is the objective of this course. To develop the skills required to participate in scrimmages and competitions, the class will be participating throughout the Washington, DC, Metropolitan Area. Students will solve various engineering and programming challenges created by the VEX V5 STEM Classroom Curriculum for at least 1 scheduled class period each week. Students will also learn and develop other skillsets as well,

such as applying mathematical concepts such as geometry or trigonometry to solve problems. Participation is required for the handful of locally league-sponsored all-day Saturday scrimmages or competitions. Participation in after-school practice sessions scheduled is required in the week(s) leading up to weekend competition over the course of the school year.

Computer Science - Level 1:

The computer science course introduces students to fundamental concepts in Computer Science. Concepts such as loops, program flow, logic, data structures and object oriented programming are covered. Graphics may also be covered depending on how much time is left in the school year. The course is project based for students to demonstrate the skills they learned. The Python programming language will be used to ease students into concepts without worrying too much about syntax or punctuation.

Computer Science - Level 2:

This course is designed for students who have excelled in Computer Science Level 1 and want to broaden and deepen their coding language knowledge and skill. Students will learn the language Java, which involves specific data types and structures, as building a more detailed understanding of Computer Science concepts From Computer Science Level 1.

Digital, Visual, and Performing Arts

VISUAL

Studio Art:

This course is designed to introduce students to a wide variety of 2-dimensional and 3-dimensional media and techniques. In Studio Art, students will experiment with a variety of properties of tools and materials in addition to the range of ways they can be employed in a skilled and mindful way. In this course, emphasis is placed on self-expression, idea development, problem-solving, and risk-taking – encouraging students to think out of the box through the physical act of artmaking. Finally, students will participate in critiques and work towards building a portfolio of personal artwork.

Drawing:

This course introduces the student to the world of foundational art skills through drawing. We will work with pencil, charcoal, ink, crayons, and other mark-making implements. We will explore still-life, figurative, observational, gestural, and landscape drawing. The class will also experiment with a variety of paper types, and surfaces. As background, we will study the history of drawing, including Renaissance masters, Chinese landscape painting, modern art, and contemporary drawing. Students will use drawing as a creative and expressive tool, as well as a form of communication, to convey ideas. Students will participate in frequent critiques and work towards building a portfolio of personal artwork.

Drawing, Painting, and Sculpture Intensive:

This class has been created to offer students the space to develop their technical skill level in drawing, painting and sculpture, while starting to develop their own voices as artists. Concurrently, students will also be building up an understanding of the art historical perspective,

and the vocabulary to help express their understandings. Throughout the year, students' perceptual abilities are honed and their arts-based vocabulary increased through the use of critique, in which work is discussed, analyzed and evaluated, increasing critical thinking skills.

**This class is recommended for students who are planning to attend art school for higher education*

Introduction to Ceramics:

Course description coming soon.

Ceramics:

This is an advanced course for students who either have taken ceramics before or have a solid foundation in clay from outside experience. In ceramics we will be diving deep into the world of clay: looking at what artists in the world are creating today and further developing our skills as ceramicists. We will make functional and non functional dinnerware, sculpture, and more. We will also learn how to give and receive critique, encourage our fellow artists, and share responsibilities in a community studio setting. Our art projects will be featured in displays throughout the school year.

Jewelry/Metalsmithing:

In this class, students will be following the adage 'form follows function (and function follows form)', by combining elements of functional design with the fabrication of pieces made from silver, copper and brass. Over the course of the year, students will learn and hone a unique set of skills. In conjunction with learning how to manipulate metals, elements of science and math along with historical perspectives in design and metalsmithing will be considered. The teacher will introduce each new skill with a demonstration. Each skill will be incorporated into a piece, which will allow students to refine their skills, as well as broaden their understanding of design.

Sculpture:

In this class, students will explore a variety of materials and techniques to create sculptural works, often at a smaller, more intimate scale. Emphasis will be placed on understanding how different cultures have used materials and form to communicate ideas and meaning. Students will experiment with processes such as carving, assembling, and modeling while developing technical skills and craftsmanship. Through demonstrations and hands-on projects, students will learn to think critically about structure, balance, and form. Each project will build on previous skills, allowing students to refine their techniques while expanding their creative and conceptual approaches to sculpture.

Graphic Design/ Yearbook:

In this course, students will learn about the history of graphic design and basic design principles. Students will apply these understandings to develop a student-centered yearbook. Using digital technology, students will learn how to create high quality original layouts, illustrations, and digital designs. In addition to focusing on developing a foundational understanding of graphic design, students will practice conducting interviews, hone writing skills, and take photographs using digital cameras. Finally, students will collaborate with differing groups to work towards developing and publishing the yearbook.

DIGITAL

Digital Filmmaking:

This course is an investigation into the creating, authoring, exhibiting and evaluating of time-based arts. Students will learn about the creative uses of sound, lighting, composition, installation, and editing digital video. Emphasis will be placed on investigating the experimental uses of time-based media by visual artists. The goal is to help students develop a critical understanding of the evolution of this art form, in relation to current studio practices in the digital arts, photography, mixed media, installation and performance. We will explore the work of contemporary and historical video artists through conversation and presentations. Students will learn basic video-editing techniques for creating time-based art as a means of communication and a tool for self-expression. Students will participate in frequent critiques and work towards building a portfolio of personal artwork.

Digital Photography:

This course is designed to help students develop a personal, artistic vision, expressed through the medium of digital photography. In the beginning, students will learn basic Digital Photography editing techniques for creating art, as a means of communication and a tool for self-expression. The course is also designed to familiarize students with basic digital camera controls, editing, composition, and the presentation of photographic images in both electronic and print format. Most importantly, the goal of this course is to introduce students to the joys of looking, seeing, and making compelling images using DSLR cameras and other image-making tools. Ultimately, students will learn to look at the world with a keener and more perceptive eye.

New Directions in Mixed Media:

New Directions in Mixed Media is designed to inspire students to develop a personal and artistic vision expressed through an interdisciplinary approach to art making. An interdisciplinary approach blends traditional and digital media. In the first and second quarters, students will work with digital photography, sculpture, and other media, such as collage. We will use digital cameras to create mixed-media artwork that integrates photo prints with painting, collage, and other two-dimensional media. Students will also create three-dimensional objects using digital photo prints, found objects, papier mâché, and another sculptural techniques. In the third quarter, students will create short, stop motion animation projects by utilizing digital cameras, drawing, clay, and other materials. In the last quarter of the year, students will use DSLR cameras to create video clips, editing the film footage using Premier Pro software. Students will then integrate their videos into sculptures, projections, and installations. Students with Digital Photography or Digital Filmmaking experience recommended.

PERFORMING

Rehearsal and Performance:

In this project-based class, students will collaborate in the creation of a series of presentations. Students will experience what it is like to be a member of an ensemble as they work together in rehearsal learning how to collaborate, take creative risks, and exchange ideas in a safe supportive environment. Through the process of rehearsal and performance, students will also participate in interdisciplinary productions focusing on a number of cultural, historical and political concepts.

Projects may include (but are not limited to) plays, plays with music, musical theater, adaptations of published material, documentary theatre, media projects, and original pieces which may culminate in live, streamed, or recorded performances.

Musical Theater:

In this course, students will learn about the history of American Musical Theater as well as develop skills as a Musical Theatre performer. Students will experience what it is like to be a member of an ensemble as they work together in rehearsal learning how to collaborate, take creative risks, and exchange ideas in a safe supportive environment. Students will collaborate in the creation of a series of presentations combining elements of music, theater, and dance.

Through the process of rehearsal and performance, students will also participate in interdisciplinary productions focusing on a number of cultural, historical and political concepts. Projects may include (but are not limited to) musical theater, plays with music, adaptations of published material, media projects, and original pieces which may culminate in live, streamed, or recorded performances.

Theater for Social Change:

In this class, you'll dive into the stories of bold theatre artists who challenged society, pushed boundaries, and used the stage to speak out. From rebels and rule-breakers to voices that refused to be ignored, you'll discover how obstacles connected to race, gender, and identity helped spark some of the most powerful performances ever created. You'll jump into theatre games, creative challenges, and group projects where you'll collaborate, perform, and bring your own ideas to life. Whether you're acting, directing, or creating, you'll learn how theatre can be a tool for expression, connection, and change.

Introduction to Stagecraft:

Enter the world of backstage - elements and principles of design, history and geography of theater architecture, basic theatrical principles, scenic and property construction and decoration, costume design, lighting design and stage electrics, audio-visual design, and troubleshooting for lighting, sound, and video. Examine and practice drawing, drafting, and the process of production management, from formulating budgets and schedules to interpreting drawings, creating work orders, and working in teams. In addition to time in the classroom, work in the theatre and on Lab MainStage Productions. Must be able to handle a craft knife and other tools.

Advanced Scenic Design:

Advanced Stagecraft assumes previous Stagecraft classes or experience (including After School Theater Tech at Lab) as a prerequisite. We will choose advanced practices of executing elements for the stage: period research and design concepts, reading and creating technical drawings, construction techniques, CADD design, stage lighting programming and DMX protocol, scenic art and techniques, property construction and decoration, scenic art, and more advanced topics in audio and special effects. We will start with a "refresh" survey of the basics in design and stagecraft, shop safety and best practices, and from there, we will determine which path each student wants to take through the class. All students will focus on process, planning, and troubleshooting as skills that are applied in everyday life, as well as backstage. The class will be divided between "classroom" work and "hands-on" work in the theatre. Tools and materials will

be supplied. Advanced Stagecraft students will be expected to participate in Lab Theatre productions. Participation in after-school technical sessions and rehearsal processes is encouraged, though not required, and is eligible for extra credit.

Dance:

Upper School Dance provides students with a space for connection and enrichment through the development of creative expression. Creativity, identity, self-confidence, belonging and safety are encouraged throughout as a result of dance instruction. Students will be guided through fundamental concepts of various dance genres, such as contemporary, modern, ballet, lyrical, jazz, improvisation and hip-hop. They will also gain exposure to several traditions from across the world, such as Latin, Arabic and Greek dancing. Students will experiment with different forms of creative expression, by blending videography, spoken word and visual art mediums with dance. Throughout the curriculum, students will connect principles of technique to anatomy, in order to promote safety. This course will encourage students to nurture a sense of identity through dance, to eventually create their own choreography individually and as a group. This course will culminate in an end-of-year performance, where students will showcase their learned skills. By the end of the course, students will develop a greater sense of meaning for dance as an art, as well as grow in their own confidence which will translate to other aspects of their lives.

Music:

The Music Performance Course offers students the opportunity to learn to play musical instruments in a small ensemble setting. During the first half of the year the students learn the basic components of music, such as notes, chords and scales and develop these skills by playing short chord progressions, song fragments and simple songs. The students are instructed and encouraged on a daily basis and their individual progress and development is carefully monitored. Multiple methods of instruction are utilized including various written materials, video and audio presentations and classroom demonstration. A constant and consistent emphasis is placed on fundamental music theory and all ideas, throughout the course, are presented with full discussion of theoretical aspects and implications. As their skills emerge their strengths are highlighted to build confidence while their needs are addressed to build competence. During the second half of the year these musical skills are directly applied as the class forms into a functioning band--choosing, practicing and learning songs together, unified by the goal of staging an impressive and entertaining performance. In the process the students learn about all aspects of small ensemble performance ranging from volume control and tone management to understanding and appreciating the importance of establishing positive and supportive working relationships with classmates and band members. The year culminates in a spring concert where the students are able to display their skills and talents by performing in a professional format. Students are assessed based on their ability to maximize their musical potential. Factors include promptness, preparedness, ability to work outside of class, and the ability to work well with classmates in situations that require patience and respect.

Music Perspectives:

The course is designed to enlighten, inform and inspire students to find their creative outlet and to explore their potential to become creative and expressive in a bold and expressive way. The class provides multiple examples of creative individuals who followed their muse and overcame various obstacles to become fully expressive artists. It is hoped that after taking this course that

students will be able to recognize and capitalize on the many creative opportunities available to them and that they will be better able to embrace risk and explore unknown areas in a quest to realize their potential as creative and expressive, and productive individuals.