



2025-26
UPPER SCHOOL
COURSE CATALOG

INTRODUCTION

Battle Ground Academy seeks to educate high school students through a vigorous and comprehensive college-preparatory curriculum. To ensure that students receive a well-rounded education, classes in Fine Arts and Physical Education (Wellness) are a part of their studies. Students are encouraged to choose a course of study that is both interesting and appropriately challenging for them.

Please note that a student entering the Upper School is placed in the appropriate level of study at BGA based on previous courses, placement testing, and consultation with the respective department chair. In the Upper School, students must earn 21 academic credits and meet the following graduation requirements:

1. **English:** 4 credits
2. **Mathematics:** 4 credits
3. **History:** 3.5 credits – Students will complete at least ½ credit of Human Geography and full credits in World History, U.S. History, and either Contemporary Global History, Government, AP Modern European History, or AP Art History.
4. **Science:** 3 credits – Students must complete Biology, Chemistry, and one more credit from the Science curriculum.
5. **World Language:** 2 successive credits in one language in the Upper School (3 or more recommended).
6. **Fine Arts:** 1 credit
7. **Wellness:** 1 credit
8. **Electives:** 3 credits (Freshman Seminar earns ½ an elective credit. Students who are in grades 11-12 and have not taken Freshman Seminar are only required to take 2 elective credits.)

Concentration Requirements:

1. **Entrepreneurial Leadership:** Students who earn 2 credits in the EL Program can then apply for the Entrepreneurial Leadership Capstone course in spring of the junior year.
2. **STEM Concentration:** Students must complete 2 credits from at least three of the STEM areas prior to the senior spring semester. Students must take either Conceptual Physics, Physics Honors, or AP Physics 1 in the junior year.
3. **Global Studies:** Students who earn 2.5 credits by the spring of their junior year will be eligible for the Global Studies Capstone course.
4. **Fine Arts:** Students must complete 3 credits in their Fine Arts focus area (Music, Theatre, or Visual Art), including the senior spring semester Capstone course.

The courses described below have been taught at BGA for one semester or more in the past three years. Elective classes are not guaranteed to meet each year. All enrollment is subject to teacher availability, overall schedule, and total class size.

FRESHMAN SEMINAR: LEADERSHIP FOUNDATIONS

Leadership Foundations is a semester-long course designed to introduce ninth grade students to the essential skills and principles of leadership. Through exposure to evidence-based leadership concepts, experiential learning, and intentional reflection, students will explore leadership as a multifaceted discipline grounded in science, supported by research, and rooted in proven practices that drive positive outcomes. The course provides a deep dive into foundational leadership concepts while fostering the development of critical skills necessary for students to feel empowered and succeed personally, academically, and professionally. Key sub-skills covered include emotional intelligence, effective communication, collaboration, problem-solving, decision-making, and professional presence. Throughout the semester, students will reflect on their unique strengths and leadership abilities, discovering how they can create meaningful impact within the BGA community and in the world beyond.

ENGLISH

English I

This course explores how literature helps us connect to the world, one another, and ourselves. By reading contemporary and classic coming-of-age texts, students reflect on how the process of forming one's identity is linked to familial and societal expectations. Students consider how one person can make a difference; why we need other people to live a meaningful life; how we find our voice; and how we navigate conflicting expectations of who we are supposed to be. As students learn the specific skills needed to become effective readers and writers, the class's work with argumentative essays, personal narrative, poetry, reading journals, and a research project called "Be the Change" reinforce the coming-of-age theme.

English I Honors

Teacher recommendation required

English I Honors focuses on coming-of-age stories, and this advanced course searches them out across cultures and genres. Students will continue to grow intellectually, socially, and morally over the course of freshman year, and the course's texts not only support their journeys but also help to facilitate and shape this growth. The course examines how language shapes meaning in a text and how others' stories inform their own. Students practice critical and creative writing skills as they work on critical analyses, personal narratives, short stories, poems, and a research essay. It is natural to think of one's life as a book in-progress, and this course asks students to begin the next chapter.

English II

This course focuses on the idea of power dynamics and offers a combination of varied authors and themes intended to deepen discussion, promote interactive classroom activities, and inspire creative thought. Through their reading and writing, students build on the skills of textual analysis and critical thinking. Students in this course explore how classic concepts such as dystopian settings and power struggles help shape individual identity and help formulate definitions of community and success. The course combines canonical texts with contemporary novels and poetry that encourage students to examine the forces that both control our world and cause conflict within it.

English II Honors

Teacher recommendation required

English II Honors is the pre-AP course that provides transition into the AP English curriculum. The course explores how power dynamics create meaning in a text and can be applied to the historical context of a

text and contemporary society. Through reading classic and contemporary novels, plays, and poetry, students consider important questions related to power dynamics: How do political and social events intersect with individual lives? How is technology changing our understanding of privacy, selfhood, and community? How does manipulating language change thought? How do familial and cultural expectations forge identity? How do we define success? With these questions as guiding principles, students develop their critical and analytical reading skills, practice argumentative and narrative writing skills, and engage in productive, thought-provoking discussions.

English III

This is a survey course that focuses on rhetoric and composition while examining the complexity of American society. Students in this course continue building on the important frameworks of composition and literary themes as they improve their writing and discussion abilities with essays, creative projects, vocabulary, and a variety of texts. Centering on literature and the power of language, the class travels through settings near and far and highlights the traditions and struggles of a diverse group of Americans. Learning about people with experiences that often differ from their own, students constantly ponder the question, “What does it mean to be a part of American society?”

AP English Language and Composition

Teacher recommendation required

AP English Language is a survey course that focuses on rhetoric and composition and that prepares students for the Advanced Placement Exam in English Language and Composition. Through their extensive reading of nonfiction and fiction texts, students explore the themes that form the complicated and layered fabric of America: education, community, race, gender, politics, sports, pop culture, the environment, and language. In their reading and writing, AP English Language students focus on the complexities of what it means to be American, how that meaning has changed over time, and how it continues to evolve.

English IV

This is a reading and writing intensive course in which students use contemporary and classic literature to explore various iterations of the unknown. As students prepare for college, many may be thinking about the multitude of approaching unknowns: Where will I go to school? Who will be important in my life? How will I succeed, and how will I fail? There is no way to answer all of these questions at this moment. The only certainty is uncertainty. English IV focuses on texts that explore the unknown, including contemporary novels, Shakespeare, slave narratives, immigrant stories of diaspora, and post-apocalyptic dystopias. These texts allow students to consider the underlying morality and philosophy of every individual life and to re-examine their own senses of morality and purpose.

AP English Literature and Composition

Teacher recommendation required

AP English Literature is a survey course that prepares students for both the Advanced Placement Exam in English Literature and Composition and for reading and writing beyond high school. Most importantly, the course teaches students how to think critically and how to articulate opinions and analyses. Through their extensive study of classic and contemporary novels, plays, and poetry from around the world, students gain a global perspective and historical context with which to understand the course’s literary themes of existentialism and exploration. These are not only literary but human themes, ones that invite young adults on the brink of graduation to contemplate issues of morality and self-discovery and to examine what it means to be alive versus what it means to live.

Creative Writing

Fall semester course

All writers address an empty page the same: one word at a time. In this course, we'll start with an understanding of the cardinal literary genres (poetry, fiction, drama), and then use this understanding to explore the fundamentals of writing, with a focus on form, metaphor, and the writer's voice. Writers will work in all three genres, even if they have an established preference for one. This class is designed to benefit experienced and novice writers and to provide an opportunity for each to develop craft and reading skills while assembling a portfolio of new work. This is a reading and writing intensive course. Students will read and respond to each other's writing and to a wide variety of 20th & 21st-century literature.

Yearbook - Photography

Full-year course

Grades 11 & 12

This class meets on Tuesdays, Thursdays, and Fridays from 7:30-8:25 a.m.

Yearbook Photography empowers students to capture the essence of school life through photography. Students develop skills in composition, lighting, and photo editing while documenting events and candid moments for the yearbook. Working under deadlines, they curate impactful images that reflect the school's spirit. Collaboration with Yearbook Design students ensures a polished, memorable final product. This course is perfect for those passionate about photography and storytelling.

Yearbook - Design

Full-year course

Grades 11 & 12

This class meets on Tuesdays, Thursdays, and Fridays from 7:30-8:25 a.m.

Yearbook Design focuses on shaping the visual identity of the yearbook through graphic design, layout, and storytelling. Students brainstorm themes, design page spreads, and blend text and images to create a cohesive and polished final product. Emphasizing creativity and attention to detail, this course allows students to collaborate with photographers and bring the school year to life. It's ideal for those passionate about design and eager to leave a lasting mark on the school's memories.

MATHEMATICS

Algebra I

This course includes a review of pre-algebra skills, solving linear equations, inequalities, and graphing linear functions. Emphasis is placed on factoring. Students will also learn that systems of two equations are solved by graphing, substitution, and elimination. Direct and inverse variations and operations with rational expressions are studied. Appropriate word problems are used with each topic.

Geometry

Topics included are points, lines, planes, segments, angles, deductive reasoning, using perpendicular and parallel lines, congruent triangles, quadrilaterals, proportion and similarity, right triangles and trigonometry, circles, polygons and area, and surface area and volume of solids. Students learn two-column proofs. Projects may be assigned.

Honors Geometry

Teacher recommendation required

Topics included are points, lines, planes, segments, angles, deductive reasoning, using perpendicular and parallel lines, congruent triangles, quadrilaterals, proportion and similarity, right triangles and trigonometry, circles, polygons and area, surface area and volume of solids, coordinate geometry, and transformations. Students learn two-column proofs. Each topic is covered in more depth than in the College Prep class. Projects may be assigned.

Algebra II

In this course, students will learn problem-solving techniques. The topics covered are systems of linear equations and inequalities, quadratic functions, polynomial functions, rational and radical functions, and conic sections.

Honors Algebra II

Teacher recommendation required

In this course, students will learn problem-solving techniques. The topics covered are systems of linear equations and inequalities, quadratic functions, exponential and logarithmic functions, polynomial functions, rational and radical functions, and conic sections. Each topic is covered in more depth than in the College Prep class.

Pre-Calculus

The first semester is a study of trigonometric functions, trigonometric equations, and their applications for upper division courses. The second semester is a study of advanced algebra, including a study of linear, quadratic, and polynomial functions. Exponential and logarithmic functions are also studied. This is a course that lays the groundwork for study of mathematics at the college level.

Honors Pre-Calculus

Teacher recommendation required

The first semester is a study of trigonometric functions, trigonometric equations, and their applications for upper division courses. The second semester is a study of advanced algebra, including a study of linear, quadratic, and polynomial functions. Exponential and logarithmic functions are also studied. This is a course that lays the groundwork for study of mathematics at the college level. Each topic is covered in more depth than in the College Prep class.

Statistics

Prerequisite: any Algebra II course

Students will study four main areas of statistics (exploring data, sampling and experimentation, anticipating patterns with simulations and probability, and statistical inference) with a heavy emphasis on projects, applications, and presentations. The first quarter will focus on describing one- and two-variable data. Students will then learn the fundamentals of designing sound experiments, followed by studying probability. The emphasis of the third quarter will be the normal distribution and the behavior of random variables, leading to the development of the Central Limit Theorem. The final stretch of the course will expose students to the basics of statistical inference.

AP Statistics

Teacher recommendation required

Prerequisite: Honors Algebra II or any Pre-Calculus course

The course follows the AP Statistics curriculum as formulated by the College Board. Students are exposed to four broad topics or areas of study: exploring data, sampling and experimentation, anticipating patterns using probability and simulation, and statistical inference procedures. This course will have a heavy emphasis on projects, applications, and presentations. Students enrolled in this course will take the national AP Exam in the spring.

Honors Calculus

Teacher recommendation required

In this calculus course, students will study limits, the derivative and its applications, and integration and its applications. At the end of the year, students will review the major concepts of calculus with a study of transcendental functions. This course is designed to expose students to important calculus concepts and prepare them for success in Calculus I in college.

AP Calculus AB

Teacher recommendation required

Students in this course study limits, the derivative and its applications (such as related rates, monotonicity, and concavity), and the integral and its applications (such as differential equations and volumes of solids). Each topic is covered in more depth than in the College Prep class. Students enrolled in this course will take the national AP Exam in the spring.

AP Calculus BC

Teacher recommendation required

Prerequisite: Honors Pre-Calculus

In this course, students study limits, the derivative and its applications, and the integral and its applications. Transcendental functions, techniques of integration, improper integrals, infinite series, and polar coordinates are also topics covered. Topics in BC Calculus are covered at the same level of depth as topics in AB Calculus (there are just more topics). Students enrolled in this course will take the national AP Exam in the spring.

HISTORY

AP Human Geography

Full-year course

Administrative approval required (9th Grade core course, elective for 10-12 depending on enrollment)

AP Human Geography introduces high school students to college-level introductory human geography or cultural geography. The content is presented thematically rather than regionally and is organized around the discipline's main subfields: economic geography, cultural geography, political geography, and urban geography. The approach is spatial and problem oriented. Case studies are drawn from all world regions, with an emphasis on understanding the world in which we live today. Historical information serves to enrich analysis of the impacts of phenomena such as globalization, colonialism, and human-environment relationships on places, regions, cultural landscapes, and patterns of interaction. Students enrolled in this course will take the national AP Exam in the spring.

CP Human Geography

Semester course

CP Human Geography is an inquiry-based course aimed at creating an understanding of the major themes of human geography: location, place, human-environment interaction, movement, and region. Students will also gain an understanding of the six essential elements of geography: The World in Spatial Terms, Places and Regions, Physical Systems, Human Systems, Environment and Society, and the Uses of Geography. In this course students will develop an understanding of the physical geography of their planet and a broader understanding of the human experience.

AP World History

Full-year course

Teacher Recommendation required

In AP World History: Modern, students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change overtime. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. This course is designed to be the equivalent of an introductory college or university survey of modern world history. Students enrolled in this course will take the national AP Exam in the spring. Prerequisites: Students should be able to read a college-level textbook and write grammatically correct, complete sentences. Students need a recommendation from a Social Studies teacher and/or an honors English teacher.

World History

Full-year course

Required

World History is a survey course beginning with the ancient civilizations and progressing through and possibly beyond World War II. The first semester emphasizes the emergence of ancient civilizations, the classical period of Greece and Rome, the medieval period, the Renaissance and Reformation, the emergence of strong central governments in Europe, and world civilization in Asia, the Americas, and Africa. The second semester emphasizes the impact of European imperialism, the growth of nationalism, the scientific, economic, and political developments of modern history, the Industrial Revolution, the world wars of the twentieth century, and the development effects of imperialism on the civilizations of the Americas, Africa, and Asia.

U.S. History

Full-year course

Required

The U.S. History course is a class that is a general survey of American history. The scope of the class is from the age of exploration and discovery to World War II. Major topics covered will include colonization and struggle for control of North America, Independence and the creation of the U.S. government, cultural and social changes, sectionalism and the Civil War, American industrialism and imperialism, WWI and return to isolationism, the roaring 20s, and the Great Depression. Students of this class participate in the National History Day project. This is a student-centered, immersive, research-based project in which the student designs the topic, conducts research, and develops an interpretation based on the assigned theme of the year.

AP U. S. History

Full-year course

Teacher recommendation required

This class is designed by AP to be the equivalent of a college course. Students will study and learn United States history from pre-1492 to the present day. They will be demonstrating and developing critical thinking and historical thinking skills to analyze history and add their unique and accurate interpretations to the story. Students will use textbooks, online resources, primary, and secondary sources in their quest to master the content and skills of the course. Classes will use structured learning activities in the classroom. There will be a variety of learning activities designed to master the historical time periods and the required historical and critical thinking skills. This course is designed to prepare students for the AP United States history exam at the end of the year.

Contemporary Global History

Fulfills Senior History Requirement

Full-year course

This course is a survey of the history of the world during the 20th century. The material is relatively evenly balanced between United States history and world history. Major topics of study include World War I, the Great Depression, the Soviet Union, China, World War II, the Middle East, the Cold War, and Africa.

Student grades are based on homework, quizzes, identification/map tests, essay tests, papers, and one major research paper. Students should gain a better understanding of the events that shaped their world. They should also hone their skills in analysis and communication.

AP Government (United States and Comparative Government & Politics)

Fulfills Senior History Requirement

Full-year course

Semester of AP Comparative Government counts toward the Global Studies Concentration.

The first half of the year is a study of the American government with an emphasis on the Constitution, the ultimate law of the land. Students will be expected to reflect on how a government's structure and decisions impact the country's culture. The second half of the year uses a comparative approach to examine the political structures policies and political, economic, and social challenges of six selected countries: China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. Throughout the course, the students will also be learning political and physical world geography. Students enrolled in this course will take the national AP Exam in the spring.

AP Modern European History

Teacher recommendation required

Full-year course

This course consists of a survey of European history ranging from the Renaissance to the present. It is designed to prepare students for the Advanced Placement Examination, which they take to earn college credit at the conclusion of the academic year. The content and methodology of the course develops students' factual knowledge, understanding of historical issues, and ability to think critically and to write analytical essays based on historical documents. Students enrolled in this course will take the national AP Exam in the spring.

AP Art History

Full-year course

Teacher recommendation required from an honors or AP level History or English instructor

*Dual Fine Arts/History (this course can fulfill one history credit **OR** one fine arts credit)*

Grades 11-12

This course will count toward the Global Studies Concentration.

AP Art History is a fast-paced, college-level* course where students explore major forms of artistic expression including architecture, sculpture, painting, and other media from around the world. Students will learn about the form, function, content, and context of over 250 works as they develop their ability to articulate visual and art historical concepts in verbal and written form. Students enrolled in this course will take the national AP Exam in the spring.

**Please note that this is a college-level course with several works featuring mature content. Concerned parents may wish to explore the "Core 250" prior to registering their child for this class.*

African American History

Semester course

This course is designed to expand on the traditional United States history course by giving a comprehensive look at the historical account of Africans in America. As we follow the timeline of Africans

coming to America from the pre-colonial period up till the present day, we will also look at the significant contributions of African Americans in United States history. The second quarter will give an in-depth look at the Jim Crow era and its impact on both South and North. The class will focus on the rise of jazz as a distinctively African American art form. The Civil Rights Movement will be the central focus of the last part of the quarter as we see African Americans inch closer toward equality of opportunity in America.

Ancient History Studies

Fall Semester course

Grades 10-11

This course will count toward the Global Studies Concentration.

Ancient History Studies is an elective course that dives deep into historical topics that range from prehistory through the fall of Rome. The class includes study of geographical elements and the impact those patterns had on the growth of civilizations; what we know of mankind and the world in the era before written language; the river valley civilizations of Mesopotamia, Egypt, India, and China; the empires of Greece and Rome; and the ancient civilizations of the Americas.

AP Psychology

Teacher recommendation required

Grade 12

Advanced Placement (AP) Psychology introduces students to the systematic and scientific study of human behavior and mental processes. Students consider the psychologists and studies that have shaped the field, and students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology. Students engage in hands-on exploration of psychological phenomena employing research methods and consider ethical components as they use the scientific method, analyze bias, evaluate claims and evidence, and effectively communicate ideas. Students enrolled in this course will take the national AP Exam in the spring.

SCIENCE

Biology

Biology is the study of life. The goal of our general biology course is for students to gain an understanding of the organization, structure, function, and interactions of living organisms and their environment. Three major themes appear throughout the course: diversity of life, interdependence of life, and change over time. These themes will be seen again and again as we study the definition of science, the characteristics of life, biochemistry, general ecology, cell biology, genetics, the origin of life, and classification of organisms. This course involves hands-on experimentation and laboratory technique, presentations, individual and group projects, work in cooperative teams, as well as independent activities and homework assignments.

Honors Biology

Honors Biology is a survey of a broad range of biological topics including, but not limited to, cellular and molecular biology, cellular reproduction, protein synthesis, metabolism, genetics, evolution, animal diversity, and ecology. Honors Biology distinguishes itself from general biology by utilizing a more challenging text, covering more material at a greater depth, and performing more advanced laboratory experiments. This course will be taught using an inquiry-based, hands-on approach with an emphasis

placed on developing problem-solving and critical thinking skills, not simply retention of information on biological systems.

AP Biology

Full-year course

Teacher recommendation required

Grades 11-12

Advanced Placement (AP) Biology is equivalent to a two-semester introductory college biology course taken by students majoring in a biological science. AP Biology distinguishes itself from general and honors biology through the use of a college-level text, a greater range and depth of topics, a faster pace of instruction, more sophisticated lab work, and more time and effort required of students in order to succeed in the course. The quantity of information covered and the pace at which it must be assimilated presents the primary challenge to a student enrolled in AP Biology. AP Biology covers a great diversity of topics, ranging from cell biology, biochemistry, molecular biology, Mendelian and modern genetics, anatomy, physiology, and ecology. Students enrolled in this course will take the national AP Exam in the spring.

Chemistry

Chemistry is designed to introduce the students to the fundamentals of chemistry, including the structure of matter, energy transformations during chemical processes, the periodic table, chemical bonding, stoichiometry, properties of gasses, and fundamental chemical reactions. The laboratory component of the course exposes the student to basic chemical techniques, as well as hands-on experiences with the topics covered in class.

Honors Chemistry

Chemistry is the study of the properties of materials and the changes that materials undergo. The Honors Chemistry course is designed to introduce students to fundamentals of chemistry, including the periodic table, stoichiometry, chemical structure and bonding, energy changes during chemical processes, and the properties of gasses. The Honors Chemistry course includes many of the same topics as general Chemistry, but those topics are studied in a much greater depth and require more independent thinking and the use of problem-solving skills. Honors Chemistry also requires a greater commitment to laboratory work, including a deeper understanding of the concept, and more independent work.

AP Chemistry

Teacher recommendation required

Prerequisite: Honors Chemistry passed with a B or higher

Advanced Placement (AP) Chemistry is the study of the properties of materials and the changes that materials undergo. The AP Chemistry course is the second course in the advanced chemistry sequence and is designed to reinforce the understanding of basic chemical concepts learned in Honors Chemistry. In addition, the student will explore the additional topics of chemical kinetics, chemical equilibrium, acid-base chemistry, thermodynamics, electrochemistry, and organic chemistry. The laboratory component of the course gives the student hands-on experience with both performing chemical experiments and designing and troubleshooting experiments. The rigorous nature of the course, both in depth of content and critical thinking, prepares the student to perform well on the Advanced Placement test that all AP Chemistry students are required to take in May.

Physics

Conceptual Physics is a year-long course that explores such topics as mechanics, electricity, magnetism, and atomic physics. With inquiry-based and modeling lectures, hands-on demonstrations and laboratories, and finally, project-based learning activities, this course introduces fundamental physical

concepts, laws, and principles. Conceptual Physics provides students with a comprehensive foundation in physics, laboratory techniques, computational skills (using Pyret), and problem-solving abilities that each student will be able to use in future higher-level cognitive requirements. Students enrolled in this course will take the national AP Exam in the spring.

Honors Physics

Teacher recommendation required

The Honors Physics course is an algebra-based course and focuses on classical Newtonian mechanics, magnetism, and electricity, including modern circuitry. It requires higher demands on problem-solving, experimental works, and lab reports than the Conceptual Physics course. In addition to the fully integrated inquiry-based teaching-learning pedagogy, students will be exposed to the Modeling Teaching Method and Project-Based Learning activities that require the correlation to Next Generation Science Standard. Each student must have departmental approval, possess strong mathematical skills, and have earned a B+ or better in Algebra II, Biology, and Chemistry. Students in the honors track should have earned a B or better in those courses.

AP Physics I

Teacher recommendation required

Prerequisite: Honors Chemistry and Honors Algebra II

Grades 11-12

Advanced Placement (AP) Physics I is an algebra-based course that follows the curriculum set forth by the College Board and focuses on classical Newtonian mechanics, including rotational motion, simple harmonic motion, waves and sound, electric field, and force and dc circuits. The rigorous nature of the course, both in depth of content and critical thinking, prepares the student to perform well on the Advanced Placement test that all AP Physics I students are required to take in May.

Astronomy

Semester course

Grades 10-12

Astronomy is a course that introduces students to astronomy and the study of the universe. This course will focus on the history of astronomy, the progress of astronomy through technological advances, the structure of the solar system and the galaxies, planets, meteors, asteroids, and comets, and the study of the stars (distance, age and life cycle). There will be a few night observational labs on the BGA soccer field, with reflector and refractor telescopes provided by the school.

Conceptual Engineering

Semester course

Grades 10-12

Conceptual Engineering is a project-based learning course in which the student will perform STEM-based, hands-on activities, projects, and presentations. The Conceptual Engineering I course brings students through practical applications of the Design Thinking Process. In addition, students will learn how to apply for patents in the U.S. and gain experience with Fusion 360 (Computer-Aided Drafting or CAD), which facilitates 3-D design printing.

Anatomy and Physiology

Semester course

Grades 10-12

Anatomy and Physiology is a survey course that emphasizes major body systems. Students will develop an understanding of the relationships between the structures and functions of the human body. Students will also learn the mechanisms for maintaining homeostasis within the human body and how diseases,

disorders, and physical and chemical traumas can affect the proper functioning of various organ systems. This course will involve laboratory activities, projects, dissections, models, diagrams, and clinical studies. This course will be beneficial for individuals seeking to pursue a career as a health professional.

Forensic Science

Semester course

Grades 10-12

Forensic Science is a course where the students will be introduced to what a forensic scientist does and practice the techniques associated with securing and processing a crime scene and the study of criminals. Students will become familiar with the collection, identification, and documentation of various types of evidence including blood, glass, fingerprints, handwriting, human remains, soil, and impressions.

Marine Biology

Semester course

Grades 10-12

Marine Biology is a course designed to be a specialized extension of life sciences. After providing an initial framework for the study of the world's oceans, Marine Biology students spend the remainder of the semester exploring and comparing the organization, structure, and function of life under the sea. Students will continue to practice investigative skills through hands-on laboratory procedure and analysis, as well as broaden their understanding of the scientific process through self-led studies, which act as summative assessments for the end of the semester.

Earth Science

Semester course

Grades 10-12

Earth Science is an elective course that collectively seeks to understand the Earth and its neighbors in space. The main purpose of Earth Science is to introduce students to the Earth and the intricate workings of our Earth's systems. Weather, oceanography, volcanoes, earthquakes, rocks and minerals, environmental issues, and astronomy are all covered as part of this class. Major projects, lab write-ups, and research reports are frequently required.

Fabrication and Design Methods

Semester course

Grades 10-12

In this semester course, students will be exposed to the different equipment available in the Makerspace. Each unit will teach the student the necessary skills and content needed to design for various fabrication methods and finish with a design challenge that requires innovation. Fabrication methods will include 3D printing, woodworking, laser cutting and engraving, and vacuum forming. Basic principles of design will be introduced, and students will have the opportunity to design solutions as they complete collaborative projects. At the end of the course, students will have the working knowledge needed to make decisions about what machines/tools would be the best to create their designs in a student-driven culminating project.

Rocketry Science

Semester course

Grades 9-12

Rocketry Science is a hands-on course for ninth through 12th grade students passionate about aerospace and engineering. The primary focus is preparing students to compete in the American Rocketry Challenge (www.rocketcontest.org), with the goal of qualifying for and attending the national finals in mid-May. Students will engage in the full cycle of model rocket design and flight, adhering to the ARC rules for the

current year's mission. This includes using rocket CAD/simulation software, designing components with 3D software, 3D printing components, construction, testing, data analysis, and optimization, all based on algebra-level physics and math skills. Additionally, students from artistic backgrounds can contribute to the Marketing Video and Presentation competitions within the challenge. While the main emphasis is on competitive rocketry, the course also offers opportunities to explore current events in aerospace, providing context and inspiration for future careers.

Scientific Process and Lab Skills

Fall Semester

Prerequisites: Biology and Chemistry

Grades 11-12

This semester course will focus on foundational laboratory skills in chemistry and biology so that students can begin to ask and answer scientific questions. Students will learn the foundations of quantifying molecules and separating molecules (both biological and chemical) and will become familiar with techniques such as spectroscopy, gel electrophoresis, chromatography, and distillation. Students will also explore how all of these techniques are applied in modern medical devices such as rapid tests, pulse oximeters, blood glucose monitors, or EKGs. Throughout the course, students will be developing hands-on lab skills and improving soft skills such as collaboration and written/oral scientific communication. At the conclusion of the course, students will be prepared to evaluate their own scientific questions in a subsequent Capstone research course.

WORLD LANGUAGES

French 1

Students are introduced to the daily life and interactions of French-speaking people. They learn to communicate effectively using the French language in speaking, writing, reading, and listening activities. Students study cultural units and learn topical vocabulary. The course centers around the students' familiar experiences and basic interactions, such as greetings, introductions, numbers and alphabet, the classroom, the family, home, clothing, and activities. Students are encouraged to speak and write French to the best of their ability.

French 2

Students learn a greater variety of vocabulary and structures. They expand the skills of listening comprehension, speaking, reading, and writing. Culture is incorporated using authentic materials as much as possible, and vocabulary offers a broadened scope of experiences familiar to the student, such as subjects studied in school, friends, food, health, travel, and leisure. Instructors and students aim to use French as the primary language in the classroom, with increasing reliance on it throughout the year.

French 2 Honors

Teacher recommendation required

French II Honors is a continuation of French I (Upper School) or French I A and B (Middle School). In this accelerated course, students learn a greater variety of vocabulary and structures and grow in listening, speaking, reading, and writing. Culture is incorporated using authentic materials regularly, and vocabulary offers an expanded scope of experiences familiar to the student, such as school subjects, friends, food, health, travel, and leisure. Communication develops into longer, more complex exchanges in both speaking and writing. French is the primary language of the classroom, with increasing reliance on it throughout the year.

French 3

As students continue their study of the French language and its cultures, vocabulary moves beyond daily, personal topics to broaden students' perspectives and increase their ability to communicate. Students will grow in their writing, reading, speaking, and listening skills using magazines, short novels, articles, videos, and songs. The class explores themes such as identities, the environment, technology, and urban life. This course challenges students to develop their curiosity and higher-level thinking. Both instructor and students use French as the primary language in the classroom, with increasing reliance on it throughout the year.

French 3 Honors

Teacher recommendation required

This course moves beyond daily, personal topics and encourages students to explore questions related to the broader world. Units include identities, professional life, the environment, technology, and urban life in general. This course challenges students to develop their curiosity and higher-level thinking using magazines, the classic novel *The Little Prince*, articles, videos, and songs. Thanks to the accelerated pace, students' ability to communicate in French through writing, reading, speaking, and listening is expected to increase substantially. French continues to be the primary language of students and instructors.

French 4

Students in this course explore ways in which life in France and in the French-speaking world compares to their own communities, using magazines, short novels, articles, videos, and songs. Students review and practice the French language through speaking, writing, listening, and reading, and they develop their knowledge of French and Francophone cultures and their ability to communicate in French. French continues to be the primary language of students and the instructor.

French 4 Honors

Teacher recommendation required

Students are introduced to the themes covered in AP French Language and Culture – Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty, Art, and Aesthetics, in the contexts of the French-speaking world. Students learn advanced grammatical structures and sharpen their abilities to read, write, understand, and speak French, as they compare their own cultures to those in the French-speaking world. Students and instructors use French in class.

French 5 Honors

Students in this course explore various themes and develop their ability to communicate through magazines, short novels, songs, and videos. Students continue to strengthen and review their use of the French language through speaking, writing, listening, and reading, and they further develop their knowledge of French and Francophone cultures and their ability to communicate in French. Students and instructors use French as the primary language in class.

French 5 AP

Teacher recommendation required

In this course, we explore culture and events in contemporary and historical settings, focusing on the six cultural themes chosen by the College Board for this course: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. At an advanced level, students practice listening, speaking, reading, and writing in French, as well as hone knowledge of the cultures and current events in French-speaking regions and countries. Students and the instructor use French in class. Students enrolled in this course will take the national AP Exam in the spring.

Latin 1

Students will explore three key periods of Roman history, the geography of the Roman Empire (including its size, shape, and major regions such as provinces, seas, and rivers), and cultural comparisons between ancient and modern society, with a focus on Roman slavery and military matters, and specifically, the basics of Greco-Roman polytheism and religion. The introduction to Latin requires students to master hundreds of new vocabulary words about geography, body parts, animals, common activities, clothing, and more. Just as challenging, students begin to open their minds to an entirely different type of language, since Latin as a highly synthetic language requires one to attend to spelling changes rather than word order as the primary tool for building meaning.

Latin 2 Honors

Students will study a variety of Greek and Roman myths and legends that pervade global media, encounter some of the Roman elements of art and architecture that continue to influence global culture today, and consider the similarities and differences between ancient and modern societal expectations in various aspects of daily life (politics, holidays, meals and dinner parties, religion, love and marriage, agriculture). By the end of the course, students will have mastered a basic level Latin vocabulary of more than 1,500 words, which will allow them to understand and express key ideas about everyday topics in Roman life and history as well as similar modern topics. Furthermore, students continue to internalize the world-changing paradigm shift that comes from studying a synthetic language that, despite important similarities, advances their minds into a thoroughly new way of processing and representing the world around them throughout time and space.

Latin 3/4 Honors

Students begin to study, analyze, and deconstruct the engaging meta-language that we call the Classics (the masterpieces of Greek and Roman literature) through philology — the scientific study of language and literary style. The greatest authors and thinkers of the longest-lived ancient empire the world has ever known share their own views of the world: history, culture, and philosophy. We consider perennial questions such as: What is love? What does it mean to be human? What is the nature of life and reality?

AP Latin

We study Julius Caesar's *Auto-history* and Vergil's *Ambivalent Epic*. Following the AP Latin syllabus, we study the life, times, and works of the best-known Roman, Julius Caesar, and the national epic, the *Aeneid* of Vergil. Students hone their translation skills, learn more details about Roman history (especially of the first century BC), and internalize the features of style and genre that shape historiography and epic poetry. The class explores the AP themes such as: How do Romans view and depict non-Romans, their values, and their customs? How do religion and the gods shape the Roman world view? Students enrolled in this course will take the national AP Exam in the spring.

Spanish 1

Spanish I is designed to help students reach an acceptable level of proficiency in the four basic skills: speaking, listening, reading, and writing. The students build on their ability to communicate using phrases and simple sentences that encourage interaction, creativity, and familiarity with the culture. They attain these skills through a wide variety of learning methods that encourage active participation and involvement. Students develop an appreciation for the cultures of the Spanish-speaking people through discussions about cultural practices, traditions, and behaviors.

Spanish 2

Spanish II continues students' development in all five proficiencies: reading, writing, speaking, listening, and culture. Students build on their communication through expanded vocabulary, new concepts, and interpersonal activities in Spanish. They attain these skills through a wide variety of learning methods that encourage active participation and involvement. The instructor and students aim to use Spanish as the primary language in the classroom, with increasing use throughout the year.

Spanish 2 Honors

Teacher recommendation required

Spanish 2 Honors is an accelerated course in which students acquire language through reading, writing, listening, and conversing in the target language. Students build on their communication through expanded vocabulary, new concepts, and interpersonal activities in Spanish. They attain these skills through a wide variety of learning methods that encourage active participation and involvement. They are expected to express feelings, ideas, and opinions on different topics. The instructor and students aim to use Spanish as the primary language in the classroom throughout the year.

Spanish 3

Spanish III further develops all five proficiencies: reading, writing, speaking, listening, and culture. Additional vocabulary and concepts are presented in each chapter. Students increase and enhance their listening comprehension through the use of audio, video, dialogue, and music. Students participate in a variety of activities in the classroom to practice and improve their communication skills. They also read from a variety of sources and texts, such as dialogues, informative texts, and literary texts. Culture is embedded throughout the course in an attempt to help the learner focus on the Spanish-speaking culture, people, and their history. Both the instructor and students aim to use Spanish as the primary language in the classroom throughout the year.

Spanish 3 Honors

Teacher recommendation required

Spanish III Honors further develops all five proficiencies: reading, writing, speaking, listening, and culture. More complex vocabulary and concepts are presented in each chapter at an accelerated pace. Students increase and enhance their listening comprehension through the use of audio, video, dialogue, and music. Students participate in a variety of activities in the classroom to practice and improve their communication skills. They also read from a variety of sources and texts, such as dialogues, informative texts, and literary texts. Culture is embedded throughout the course in an attempt to help the learner focus on the Spanish-speaking culture, people, and their history. Both the instructor and students use Spanish as the language of instruction throughout the year.

Spanish 4

In Spanish IV, the emphasis continues to be on the acquisition of an intensive active vocabulary that enables students to communicate in a wide variety of real-life situations. Realistic dialogues, personalized questions, situational role-plays, and reality-based activities prepare students to carry out daily interactions in Spanish. Students review all previous concepts; some advanced concepts are also incorporated. A major portion of class time is devoted to a variety of cooperative learning activities of a conversational nature. The use of authentic materials, music, periodicals, and video enhances cultural awareness and offers topics for discussion. This course increases the oral proficiency of the student such that they can create with the language, participate in progressively more challenging conversations, and communicate successfully in basic survival situations. Spanish is used as extensively as possible.

Spanish 4 Honors

Teacher recommendation required

Students are introduced to the themes covered in AP Spanish Language and Culture – Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty, Art, and Aesthetics, in the contexts of the Spanish-speaking world. This accelerated course seeks to refine and enhance the four basic skills. There is an in-depth review and deepening understanding of advanced concepts. Students acquire additional vocabulary and idiomatic expressions to allow for the easy, accurate reading of authentic materials. Students also listen to a variety of authentic audio recordings. Students express thoughts and opinions in Spanish through compositions and oral presentations. The class explores culture through the various reading and listening selections. Both the instructor and students use Spanish as the language of instruction.

Spanish 5 Honors

Teacher recommendation required

In Spanish V Honors, the emphasis is placed on the acquisition of an intensive active vocabulary that enables students to communicate in a wide variety of real-life situations. Realistic dialogues, personalized questions, situational role plays, and reality-based activities prepare students to carry out normal daily interactions in Spanish. Students continue to strengthen and review their use of the Spanish language through speaking, writing, listening, and reading. A major portion of class time is devoted to a variety of cooperative learning activities of a conversational nature. The use of authentic materials, including excerpts from Spanish literature, music, periodicals, and video, enhances cultural awareness and offers topics for discussion. Students continue to create and participate in progressively more challenging conversations and communicate successfully in real-world contexts. The target language is used as extensively as possible.

Spanish 5 AP

Teacher recommendation required

The Spanish V AP Language and Culture course is an advanced college course in high school. The College Board structures this curriculum around six themes: Families and Communities, Beauty and Aesthetics, Contemporary Life, Global Challenges, Personal and Public Identities, and Science and Technology. These themes facilitate the integration of language, content, and culture while using the language in a variety of contexts. Students must combine these topics and their proficiency in listening, speaking, reading, and writing. Both the instructor and the students use Spanish exclusively in class. Students enrolled in this course will take the national AP Exam in the spring.

FINE ARTS - VOCAL MUSIC

Choir

Grades 9-12

The choirs at BGA are divided into two choirs – Concert Choir and Chamber Choir. Placement in these choirs is by audition. Auditions are held in the spring of the previous year. For both courses, the primary emphasis is on performance, but there is a strong emphasis on sight reading, music theory, and music history. Both of these classes may be repeated.

The Concert Choir

Semester course

Grades 9-12

The Concert Choir will perform in at least three scheduled events as well as the Regional Choral Festival. Students will concentrate on the development of good singing technique, including breathing, vowel

shape and formation, and diction. The class will study historical and contemporary choral music in English and other languages.

The Chamber Choir

Full-year course

Grades 9-12

Chamber Choir performs in the same three concerts as well as in on and off-campus assembly programs, special events, Choral Festival, and on an “as-needed” basis. Students are expected to perform quality SATB literature, both accompanied and a capella. Students will study historical and contemporary choral music in English and other languages. In the even-numbered years, this choir travels to New York and joins in a National Youth Choir to sing in Carnegie Hall.

FINE ARTS - INSTRUMENTAL MUSIC

Concert Band

Full-year course

Placement is by audition.

Grades 9-12

Concert Band is a performance-based ensemble class. This course is intended for students who have previous years of wind instrument or percussion instruction, or who are interested in learning a traditional band instrument. Students will be expected to perform various styles of classical and contemporary band literature at band concerts on campus as well as at various judged assessments. Through this course, students are expected to analyze and critique music performances through aspects of music theory and music history. In the fall, members of this ensemble are strongly encouraged to participate in the pep band for the home football games (if you are a fall athlete, we will work with your schedule!). Students are required to supply their own instrument and related supplies (large instruments excepted). A limited number of school instruments are available for use.

Commercial Music Ensemble

Full-year course

Placement is by audition

Grades 9-12

The Commercial Music Ensemble is a performance-based ensemble class. This course is intended for singer/songwriters, guitarists, bassists, drummers, and wind instrumentalists at BGA. Students will be challenged with various styles of commercial music (jazz, pop, rock, country, indie, etc.) from the 20th century. Through this course, students are expected to analyze and critique music performances through aspects of music theory and music history. Ensemble members will also be expected to use music technology and composition and/or arranging skills to create lyrics or charts for their classmates.

Guitar/Ukulele I

Fall semester course

Grades 9-12

This class is for beginner guitar/ukulele players. Students will learn fundamental techniques and repertoire as well as perform pieces in solo and group settings. Students who have never played an instrument before and are wishing to learn a new skill are encouraged to enroll.

Guitar/Ukulele II

Spring semester course

Placement is by audition or finishing Guitar/Ukulele I

Grades 9-12

This class is for intermediate to advanced guitar/ukulele players who wish to further the development of their skill on their instruments. Students will build upon their foundational knowledge by setting individual goals to advance their technique. Students will need to have proficiency in the use of chords, scales, and an existing repertoire of music.

Music Through Technology I

Fall Semester Course

Grades 9-12

This course will be focused on reading, writing, and understanding the function of music in written form as well as ear-training through the use of recording technology. Students will be introduced to the fundamental concepts of music theory as well as use their devices, microphones, and readily available apps to create, record, and edit music in a Digital Audio Workstation (DAW). Major concepts in the western music tradition along with contemporary applications (ex: Nashville number system) will be covered. Students will listen to, analyze, and write music.

Music Through Technology II

Spring Semester Course

Prerequisite: Music Through Technology I

Grades 9-12

The emphasis of this class is on the creative aspects of recording music, songwriting, and producing. Utilizing the basic concepts of music theory and the use of digital recording equipment learned in *Music Through Technology I*, students will collaborate with one another in order to create original compositions that will be compiled into a full class project to be released at the end of the school year. Students will utilize tools and techniques used throughout music history in order to compose music as well as explore and experiment with sound as they learn the roles of both musician and engineer/producer.

FINE ARTS - THEATRE

Acting I

Semester or full-year course

Grades 9-12

This course, designed to acquaint students with the world of theatre, will cover basic theatre terminology, history, and important works. The class will also focus on the development of basic acting skills through improvisational games and scene studies.

Acting II

Semester or full-year course

Prerequisite: 2 semesters of Acting I

Grades 9-12

Students will continue building their technique through advanced scene studies, vocal and physical exercises, and acting theory.

Costume Design I

Semester course

Grades 9-12

Costume Design I is a semester course that will introduce students to the basics of costume design. The curriculum covers essential topics such as hand and machine sewing, design elements and principles in costume creation, collaboration within a design team, script analysis, and the overall costume design process. Students will also explore character analysis, the historical context of fashion, fabric selection, and rendering techniques. This course is ideal for those seeking to develop a comprehensive understanding of costume design and its role in storytelling.

Costume Design II

Semester course

Grades 9-12

Costume Design II is an intermediate course that builds upon foundational skills to deepen students' understanding of costume creation for theatrical productions. The curriculum emphasizes advanced sewing techniques, including the insertion of zippers and pockets, as well as the art of draping and patterning garments. Students will engage in hands-on projects, such as draping historical garments and constructing costumes based on detailed renderings. This course is ideal for those eager to enhance their practical skills and gain a comprehensive understanding of the costume design process.

Costume Design III

Semester course

Grades 10-12

Costume Design III is an advanced course that explores the intricacies of costume design for theatrical productions. Building upon foundational skills, students will engage in script and character analysis, and a variety of theatrical styles. The curriculum emphasizes the application of design principles to interpret scripts, reinforce character relationships, and effectively present design concepts. Through practical projects and critical discussions, students will refine their ability to create costumes that authentically represent characters and narratives. This course is ideal for those seeking to deepen their expertise in costume design and its application in performance settings.

Costume Design IV

Semester course

Grades 10-12

This course delves deeper into the art and technique of designing costumes for theatre, film, and live performance. Students will explore advanced concepts in character analysis, historical and cultural research, fabric manipulation, and construction techniques. Emphasis will be placed on collaboration with directors and production teams, designing for specific storytelling needs, and presenting professional-grade renderings. By the end of the course, students will develop a portfolio of original designs and gain hands-on experience bringing their visions to life. Suitable for those with prior costume design or theatre experience.

Playwriting

Spring Semester course

Grades 9-12

In this course students will learn the fundamentals of playwriting through the process of developing and writing their own original plays.

Intro to Theatre Arts

Semester course

Grades 10-12

The goal of Intro to Theatre Arts is to learn the fundamentals of building for the theatre and to become skilled in basic carpentry techniques. The class focuses on learning the proper use of hand tools and

power tools, the fundamentals of carpentry, and painting techniques specific to the stage. Emphasis is placed on the study of appropriate hardware, building materials, and techniques conducive to set design, as well as the safe and proper use of all tools and equipment. The students will learn to implement their skills on small projects focusing on detail and practice.

Theatre Arts

Semester or full-year course

Prerequisite: Intro to Theatre Arts

Grades 10-12

The goal of Theatre Arts is to apply the fundamental skills learned in Intro to Theatre Arts to the designing and building of the sets for all theatrical productions during the school year. This course is an examination of the materials, techniques, and conventions of scenic construction, and it will provide students with an opportunity to envision and create set designs for school theatrical productions. Students will explore and practice applications of construction including flats, sets, platforms, ramps, stairs, various mediums (wood, plastics, cloth, etc.), stagecraft, props, and special effects. This course covers construction of stage scenery and properties with an emphasis on tool safety, materials and hardware, stage carpentry, scenic painting, stage rigging, stock maintenance, and basic approaches to building scenery using hands-on experience to compliment videos, demonstrations, and/or assigned readings. This course includes large projects and tech challenges.

Theatre Ensemble

Full-year course

Grades 11-12

Prerequisites: Any combination of Theatre classes taken for two years or any combination of Theatre classes and major production experience deemed appropriate by the instructor.

Designed for the serious theatre student, Theatre Ensemble is a production-based course that allows the student to take on a number of different roles, including actor, director, designer, producer, dramaturge, and playwright. The class will function as a theatre company while offering students a chance to explore individual interests. Students must participate in fall play or spring musical and are required to attend and critique one theatrical production per quarter.

FINE ARTS - VISUAL ARTS COURSES

Sculpture & Ceramics I & II

Semester Courses

Grades 9-12

Introductory course in sculpting techniques across a variety of 3D media, which may include clay, plaster, paper mache, and more. Learning basic ceramic hand-building techniques as well as an introduction to the potter's wheel will be emphasized. Students will create both functional and sculptural objects as they develop a foundation that higher-level classes can build upon.

Sculpture & Ceramics III & IV

Semester Courses

Prerequisite: Sculpture & Ceramics I & II

Grades 10-12

Intermediate course in sculpting techniques across a variety of 3D media, which may include clay, plaster, paper mache, and more. Students will build upon skills and techniques learned in Sculpture & Ceramics I

& II and increase confidence with communication and experimentation. The relationship between form and function, more advanced surface design treatments, and communication of ideas will be explored.

Drawing & Design I & II

Semester Courses

Grades 9-12

In this intermediate-level course, students will explore a variety of drawing media (graphite, charcoal, colored pencil, ink, pastels and more) while developing technical and creative skills. The creation of original student compositions will be emphasized through creative problem-solving, journaling, and critique.

Painting I & II

Semester Courses

Prerequisite: Drawing & Design I & II

Grades 10-12

This intermediate-level course will explore a variety of wet media, including watercolor, acrylic, water soluble oil, and mixed media. Students will study composition, color, and the rendering of form. Content for paintings will vary from the observed to the imagined. The creation of original compositions will be emphasized through creative problem-solving, journaling, and critiquing.

Art & Design Honors

Full-year course

Teacher recommendation required

Prerequisite: Painting I & II or 2 full years of art

Grades 11-12

For advanced students who are intent on developing technical and expressive skills. Students will respond to a range of prompts as they develop a deeper understanding of how materials, processes, and ideas work together to create engaging, effective works of art. Originality and composition will be emphasized.

AP Art & Design

Full-year course

Teacher recommendation required

Prerequisite: Art & Design Honors or 3 full years of art

Grade 12

This challenging college-level course will focus on an inquiry-based sustained investigation of materials, processes, and ideas that reflect the student's own experience and thinking. Students will practice and develop skills in investigation, experimentation, and communication. Originality and technical skill will be emphasized. Portfolios are submitted in early May for scoring by the College Board.

FINE ARTS - DIGITAL ARTS COURSES

Digital Arts I & II

Semester courses

Grades 9-12

Introductory course exploring digital design techniques that build a strong understanding of the principles and elements of design and the design process. Upon completion of this course, students will be able to utilize industry tools to conceptualize and create communications solutions that effectively reach targeted audiences. Students will acquire basic skills in illustration and typography through use of the Adobe Creative Suite.

Standards in this course can include history of design, industry exploration, elements and principles of design, basic illustration and typography, and an introduction to design software.

Photography I

Semester course

Grades 9-12

This is an Introductory course into the world of photography. Students will learn the basic skill sets of how to take a successful photograph, understand the principles of good visual design, and understand the impact of their digital literacy and responsibility within their digital footprint. Upon the completion of this course, students will successfully be able to visually communicate using both digital and analog (film) cameras and the digital legacy they leave. Students are introduced to classic photography techniques of a darkroom and move to modern day digital and technology techniques associated with today's artistic photography. Students will acquire skills within the principles of photography through composition, color theory, dark room procedures and development, the exposure triangle (shutter, f-stop, and ISO), and the use of available light to achieve desired results.

Photography II

Prerequisite: Photography I and/or portfolio review

Students gain practical knowledge of on-location and studio photography to support multiple pathways that communicate and capture visual ideas and information to the public. Students will be introduced to a variety of digital media used in fine art and commercial photography, social media marketing, and website implementation. Students will acquire advanced skills in digital editing, strobe and continuous lighting, diffusers and modifiers, and color profiles. Advanced students will participate in local and national contests and create a portfolio to showcase their work for use in securing internships, employment and/or applying for college. Students will also have the option to test for ACA certification within the Adobe Suite. (Testing fee \$79.00)

WELLNESS

Wellness

Semester or full-year course

The Wellness course is designed to instruct students in the proper use of free-weight exercises, exercise machines, and the muscles that are used while performing these exercises. The course also continues this teaching into the proper technique of non-weight and aerobic exercises and cardiovascular programs. Instruction also addresses topics covered in traditional health courses, such as nutrition, healthy lifestyle choices, the impact of substance abuse, etc.

Fundamental Fitness

Full-year course

Priority is given to students in grades 11-12

This class is designed around a lifetime wellness approach with the goal to promote physical fitness and optimal nutrition as a fulfilling part of life. The students will participate in a variety of workout designs in order to gain confidence and basic understanding of different workout class formats. These designs include foundational parts of Pilates, yoga, bootcamp, circuit training, strength workouts, and cardiovascular conditioning. We will target almost every aspect of fitness including: functional movement technique, strength and mobility exercises, cardiovascular conditioning, balance, core and agility. Along with the workout portion, there will be a basic nutritional component woven into the course. Be prepared to become a healthier version of you! This class meets on Wednesdays and Fridays from 7:30-8:25 a.m.

Students are required to attend 25 classes per semester, for a total of 50 for the year. Successful completion of the course will earn .5 Wellness credit.

ACADEMIC CONCENTRATIONS

ENTREPRENEURIAL LEADERSHIP CLASSES

Economics of Business: Introduction to Business Start-ups

Semester course

As a first step in building a start-up toolkit, students will learn and leverage the concepts taught within the Lean LaunchPad methodology. Students will leverage the 'Business Model Canvas' tool to help understand the early considerations of forming a business; from hypothesizing a venture's value proposition to generating revenue, no stone is left unturned. Students will learn effective ideation, business, and design-thinking principles with the aim of solving problems and creating value in the marketplace.

Managerial Finance

Semester course

Prerequisite: Algebra II

This elective course examines different applications of finance. The mathematical-based course will focus on the entrepreneurial financing of a start-up, including funding, managing cash flow, and basic accounting. Also included will be elements of personal finance, such as creating a budget, types of interests on various loans, and managing credit and investment options.

Marketing for Entrepreneurs

Semester course

All start-ups need to know how to 'get, keep, and grow' their (would-be) customer base; this occurs only when a strategic marketing plan is in place. In addition to understanding traditional corporate marketing principles, marketing for a start-up requires a nuanced understanding of how to gain/create and/or leverage public relations (PR), social media, crowdfunding platforms, and Guerrilla marketing tactics (among other levers). This course will cover the importance of "Product, Price, Place, and Promotion" through the lens of a start-up.

Social Entrepreneurship

Fall semester course

What do you want to fix in the world? Sustainability, poverty, access to healthcare, clean energy production – these are just a few of the issues that interest today's social entrepreneurs. In this class, you will explore your own social interest through creating a working social enterprise model. Students will study the differences and social tradeoffs between for-profit and nonprofit businesses – and the business models that live somewhere in between (think Toms shoes, Warby Parker, etc.). This interactive class will prepare students to innovate for the greater good!

Business Communication

Semester course

This is a course that focuses on teaching effective communication techniques within a business context. Students will learn how to create their personal brand, deliver business presentations, and develop the critical-thinking skills necessary to master an interview. This course is a critical segue to the EL Program's

senior Capstone course and will help students market themselves more effectively during the college and internship application processes.

Leadership for Entrepreneurs

Spring semester course

The goal of the course is to equip emerging entrepreneurs and future business leaders with the tools and perspectives necessary to effectively influence groups and organizations toward achieving common goals. The course will emphasize challenges and opportunities faced by entrepreneurs and propose how best to navigate those situations successfully as leaders. Students will explore major theories of leadership as well as best practices from a number of fields then translate that knowledge into practice by applying concepts to real-world case studies, self-improvement plans, and impactful recommendations for actual local organizations. Guest lecturers will also support students' learning through sharing their own leadership experiences.

Applied Models of Economics Honors

Full-year Capstone course

This course begins by employing Problem Based Learning (PBL), which allows students to gain hands-on experience in solving genuine problems for real business start-ups. Using the Lean LaunchPad method, students partner with local start-ups in the first semester to help them answer a 'critical question' that they are facing. Students teams then present their solution set to the company founder(s). In the second semester, students will work in teams to create their own entrepreneurial venture from start to launch. This final Capstone project will culminate in a "shark tank" pitch to local entrepreneurs and venture capitalists.

STEM / COMPUTER SCIENCE CLASSES
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Introduction to Computer Science

Semester course

Students will grow their understanding of computers and how we use and rely on them in our day-to-day lives through activities and projects. The history of computers will be explored while looking at current technologies and hypothesizing about future innovation. Students will work independently and in groups to research and share areas of interest within each component.

Programming I

Semester course

In this course, students will learn the fundamental skills and logic needed to program in the Python Language. The organization and understanding of algorithms will lead into the creation of student generated code and student-led problem-solving. Students will work both independently, in groups and frequently in pairs. The course will wrap up with a project where students will incorporate the skills they've acquired in order to write, collect, and analyze data about their peers.

Fabrication and Design Methods

Semester course

Prerequisite: Geometry

Grades 10-12

In this semester course, students will be exposed to the different equipment available in the Makerspace. Each unit will teach the student the necessary skills and content needed to design for various fabrication methods and finish with a design challenge that requires innovation. Fabrication methods will include 3D printing, woodworking, laser cutting and engraving, and vacuum forming.

Basic principles of design will be introduced, and students will have the opportunity to design solutions as they complete collaborative projects. At the end of the course, students will have the working knowledge needed to make decisions about what machines/tools would be the best to create their designs in a student driven culminating project.

Rocketry Science

Semester course

Grades 9-12

Rocketry Science is a hands-on course for 9th-12th grade students passionate about aerospace and engineering. The primary focus is preparing students to compete in the American Rocketry Challenge (www.rocketcontest.org), with the goal of qualifying for and attending the national finals in mid-May. Students will engage in the full cycle of model rocket design and flight, adhering to the ARC rules for the current year's mission. This includes using rocket CAD/simulation software, designing components with 3D software, 3D printing components, construction, testing, data analysis, and optimization, all based on algebra-level physics and math skills. Additionally, students from artistic backgrounds can contribute to the Marketing Video and Presentation competitions within the challenge. While the main emphasis is on competitive rocketry, the course also offers opportunities to explore current events in aerospace, providing context and inspiration for future careers.

AP Computer Science Principles

Full-year course

Prerequisite: Programming I or Intro to Computer Science

Grades 10-12

In this year-long course, students will learn and apply fundamental computer science and programming skills as they work through the 5 Big Ideas of Computer Science. This course is equivalent to a college-level introductory course for non-computer science majors. Through problem-solving and algorithmic thinking, students will gain an understanding of the processes necessary for creative development. They will gain an understanding of technological advancements in computer systems and networks and be confident in their ability to analyze their potential impact of the advancements on society. As part of the AP test scores, students must undertake a Create Task that they will code in JavaScript. Students should expect to move at a brisk pace and in a collaborative and challenging classroom environment.

AP Computer Science A

Full-year course

Prerequisite: Programming I or Intro to Computer Science

Grades 10-12

This is a rigorous course that covers the fundamentals of software engineering and object-oriented programming using the Java programming language and is considered to be comparable to a first semester college-level course. Students should expect that mastering the content will take repetition and time as the content is challenging. Throughout this course, students will be taught new processes, data structures, and types, which they will incorporate and show mastery of through labs. Students in AP Computer Science A are required to develop and implement multiple approaches to problem-solving, especially decomposition methods. During the course, students will complete a minimum of 20 hours of structured lab experiences. The AP test consists of 40 multiple choice questions and 4 free-response questions, which require students to hand write Java code.

STEM Inquiry and Problem Solving

Spring Semester Capstone Class

Prerequisites: Completion of STEM Concentration Requirements

Grade 12

Students in STEM Inquiry and Problem Solving will work to gain a deeper understanding of the critical skills needed for a career in the STEM fields. Through a series of cross-curricular activities and projects, students will deepen their understanding of leadership, scientific communication, and resiliency. Students will gain real-world experience while building a diverse and comprehensive understanding of emerging technologies in STEM.

GLOBAL STUDIES CLASSES

Perspectives in Global Thinking

Spring semester class, Required for students enrolled in the Global Studies Concentration.

Grades 10-11

This course will foster an increased awareness of the interconnectedness of our local community and the broader world. By investigating major global themes such as world politics, geography, economics, society, and culture, students will learn to think critically about the dynamic world in which we all live. The course of study will focus on topics including the world economy, migration, identity, climate change, human rights, and social movements among others. Students will explore these areas with the guiding principles of belonging, empathy, and curiosity. In a journalistic-style format, students will develop their skills in writing, interviewing, observing, reporting, reacting, and synthesizing to understand these topics. Students will utilize current events as points of exploration to gain an understanding of our present world. The course will be team taught.

Global Issues

Fall semester class, Required for students enrolled in the Global Studies Concentration.

Grades 10-11

By combining elements from current events with environmental science, political science, and geography, this class will examine the various ways human behavior is impacting the planet. A particular emphasis will be placed on the U.S. government's role, and the role of organizations within the United States, to address the issues. The class will begin with a survey of the field of international relations before moving into an examination of current humanitarian and environmental Issues. The last part of the course will focus on the conservation efforts that are being undertaken and how civic participation in these efforts can be encouraged.

Mapping Solutions to Global Challenges

Spring Semester Capstone Course

Prerequisites: Completion of Global Studies Concentration Requirements

Grade 12

This is the Capstone course for the Global Studies Concentration. In this course, students will investigate Nashville as a case-study for addressing global challenges. They will revisit the idea of culture, what causes cultural change, and how this change impacts a city's growth or decline. Students will consider current events in the world and develop an understanding of how those events have a direct impact on local communities. Their goal through this work is to understand a challenge that a local culture faces and how this has a wider impact on local, regional, and sometimes national culture.

FINE ARTS CLASSES

In addition to engaging in arts courses throughout the duration of their course of study in grades 9-12, Fine Arts Capstone students must complete the following Spring class.

Arts Inquiry & Leadership

Spring Semester Capstone Class

Prerequisite: Completion of fine Arts concentration requirements

This course is a capstone requirement for all Fine Arts Concentration students in the final semester of their senior year. Students will undertake a self-directed project or performance to demonstrate the application and synthesis of skills and concepts developed from the courses and experiences in their focus area. Working in close conjunction with Fine Arts faculty, students will explore a topic or inquiry within a collaborative environment, allowing them to leverage their strengths to create, refine, evaluate, and present their work to an audience. Students will be challenged to demonstrate leadership skills such as critical thinking, collaboration, problem solving, adaptability, and resilience in order to work toward a common goal. The course concludes with a student-directed community showcase, where students will be expected to clearly communicate the research and creative process behind their exhibited work, marking the culmination of their experience as Fine Arts Concentration students.