High School Course Catalog 2025-2026

CLAYTON-BRADLEY ACADEMY

Table of Contents

Topic *(click on underlined title to move to the page)* **Pages**

Purpose:

To ignite the power of learning

Mission:

Clayton-Bradley Academy is dedicated to creating a student-centered, positive, and challenging environment where all students excel through:

- *Critical thinking,*
- *problem-solving,*
- *collaboration,*
- *and the Lifelong Guidelines and LIFESKILLS.*

Vision:

Reimagining Education

Beliefs:

Clayton-Bradley Academy is committed to the following:

- *A clear and shared focus on student learning*
- *A rigorous and integrated curriculum*
- *High expectations for learning*
- *Effective school leadership*
- *Aligned instructional and assessment practices*
- *Focused professional development*
- *Safe and supportive learning environment*
- *Family involvement*
- *Respect for diversity*

Lifelong Guidelines:

Trustworthiness; Truthfulness; Active Listening; No Put Downs; Personal Best

LIFESKILLS:

CARING; COMMON SENSE; COOPERATION; COURAGE; CREATIVITY; CURIOSITY; EFFORT; FLEXIBILITY; FRIENDSHIP; INITIATIVE; INTEGRITY; ORGANIZATION; PATIENCE; PERSEVERANCE; PRIDE; PROBLEM SOLVING; RESOURCEFULNESS; RESPONSIBILITY; SENSE OF HUMOR

Welcome to Clayton-Bradley Academy High School! Students and teachers who learn and work together in grades ninth through twelfth comprise the High School community. Together, teachers and students pursue learning opportunities that develop critical thinking skills and provide opportunities to engage in immersive learning. Students are continuously assessed, in multiple ways, so they can reach their highest potential, regardless of age or grade. Using a mastery based approach, teachers create engaging curriculum tailored to students' needs to produce a learning environment that is experiential, applicable, and rigorous. The following are CBA's core instructional practices:

Project-Based Learning

Key Curricular Content – Project-Based Learning is built around crucial, grade level standards formed across all subject areas.

Essential Questions – Each project is built around an open-ended, driving question that students use to form their explorations and investigations.

Inquiry Focus – Students dive into a process of asking questions, using resources, and developing answers over a specific timeline.

College and Career Readiness – Students build experiences critical to future education and career performance, such as team collaboration, critical thinking skills, innovation, and creativity.

Student Choice – With teacher supervision and guided development, students are allowed to make decisions about their time, their product, and how they work together.

Going Public – Students share new knowledge with those outside of the classroom by presenting their solutions and findings in a public forum or medium.

STEM Education

STEM education emphasizes problem-solving and discovery through individual exploration and classroom collaboration. Supported by a host of studies, STEM-focused education helps prepare students for a large percentage of the fastest growing occupations. STEM education at the CBA Upper School revolves around three core competencies: problem solving, collaboration, and critical thinking.

Integrated Curriculum

Teachers from all disciplines work hard to make the content from their classes overlap and interact with content from different classes. The benefits of integrated curriculum include a holistic view of learning, increased application of learning to real-world ideas, stimulated critical thinking, and increased opportunity for novel and creative expression. Many of the projects initiated in the classroom will involve several content areas. Integration encourages unique relationships, increases the context of learning, and unifies the learning community to foster student and faculty growth.

1:1 Technology

Each student in the upper school is provided with a laptop. The integration of technology into the classroom is purposeful and the goal is to use technology to enhance instruction and learning. Many of the workflow processes at the upper school revolve around specific technology such as the Google tools, learning apps, application programs, blogs, web based tools, and tech-driven organizational tools. Teachers use technology to increase efficiency in communication, and students rely on technology to produce work, submit work, and receive feedback and assessment information.

Technology is not an answer in itself. However, this is the first generation of learners to grow up in a world where personalized technology is available from birth. Many educators refer to this generation of students as "Digital Natives." Learning to utilize technology, understand applications of technology, and navigate a technologically driven world are 21st century skills that our students are learning every day.

Intrinsic Learning

Joyful learning does not require coercion or irrelevant reward (Smith, *Insult to Intelligence*). Learning is its own reward. In fact, observable brain scans show that learning a task produces a burst of neurotransmitters and a "chemical high" that creates immense satisfaction. This spark or burst of joy happens as students' "aha" moments register. The more immediate, intrinsic, and unambiguous the feedback, the faster and more accurate the learning. CBA instruction focuses on this kind of learning as compared to more traditional methods of learning involving rote memorization, fill-in-the-blank-style worksheets, lecture-based teaching, or volume-based practice. These extrinsic methods of learning foster fact-based, regurgitated knowledge that inhibits the innovation, creativity, and mastery-based learning CBA instructors strive to instill.

Graduation Requirements

Mathematics - 4 credits required. Students must take a Math class every year.

- ❏ Integrated Math 1 integrates Algebra 1 and Geometry standards
- ❏ Integrated Math 2 integrates Geometry and Algebra 1 & 2 standards
- ❏ Integrated Math 3 integrates Algebra 2 and Geometry standards
- ❏ Additional classes chosen from Precalculus, AP Calculus, AP Statistics or other math electives

Science - 4 credits required

- ❏ 9th Grade Biology I Honors
- ❏ 10th Grade choice of Chemistry I Honors or Physics I Honors
- ❏ Additional 3rd & 4th courses chosen from a bank of available options and should be selected with career application in mind

Humanities - combines 4 required credits in English and 4 required credits in Social Studies.

- ❏ 9th Grade Humanities integrates English 1 with Human Geography
- ❏ 10th Grade Humanities integrates English 2 with Leadership in Civics
- ❏ 11th Grade Humanities integrates English 3 with US History
- ❏ 12th Grade Humanities integrates English 4 with Economics and World Studies

Related Content - 8 credits earned through a diverse set of experiences

- ❏ 2 credits World Language (same language)
- ❏ 1 credit Fine Art
- ❏ 1 credit Wellness
- ❏ .5 credit PE
- ❏ .5 credit Personal Finance
- ❏ .5 credit Project Based Learning: This is not a scheduled course, but integrated into core courses.
- ❏ .5 credit Base Camp: Students will gain skills to conduct independent research and present findings in a variety of forms to a variety of audiences.
- ❏ .5 credit Navigation: designed to assist students through self-discovery while they create realistic goals for success.
- ❏ .5 credit Expedition: Combining college and career exploration with a mandatory internship experience in a local, professional setting, students will create a resume, cover letter, and digital portfolio and develop competencies in profession habits, such as email etiquette, attire, and interview skills.
- ❏ 1 credit Senior Capstone Experience comprising an original research paper, a designed product, a comprehensive portfolio, and a culminating presentation.

Electives - 3 credits earned through elective offerings in the following areas

- ❏ STEM (Science/Technology/Engineering/Math): credit earned above and beyond the required math and science credits and/or in pursuit of technology fields
- ❏ Humanities: credit earned above and beyond the required humanities credits
- ❏ Fine Arts: credit earned in music, visual, or performance art
- ❏ Leadership: credit earned in leadership skills courses

27 credits required to graduate

Grade 9-12 Standard Course Sequence

9th	10th	11th	12th
Mathematics = *4 Credits Required*			
IM1 *or* IM2	IM2 *or* IM3	IM3 *or* 3rd Math	4th Math
Science = *4 Credits Required*			
Biology I	Chemistry I *or* Physics I	3rd Science	4th Science
Humanities = *8 Credits Required*			
Human Geography + English 1	Civics + English 2	U.S. History + English 3	Economics & World History + English 4
Related Content Requirements = *8 Credits Required*			
World Language 1 + Wellness (PE) + Fine Arts + Base Camp	World Language 2 + Wellness (Health) + Navigation + Project-Based Learning	Expedition + PE + Finance	Summit - Senior Capstone

Elective Fields = *3 Credits Required*			
STEM	Humanities	Fine Arts	Leadership

Total Required to Graduate = 27 Credits

Standards-Based Curriculum and Mastery-Based Assessment

Clayton-Bradley Academy High School uses standards-based curriculum and mastery-based assessment to evaluate the growth of students. In standards-based curriculum, specific standards create the learning targets for a specific course of study. Those standards are evaluated individually and students are assessed according to the level of mastery attained in each standard. If a student does not achieve the level of mastery desired, the opportunity to re-engage learning centering on that standard is always available. Assessing student growth over time is essential. At the end of each course, individual standard grades are condensed to create a final grade. This final grade is a reflection of what the student has learned based upon continuous assessment and growth over the duration of the course. If a student fails to master enough material to earn a 2.0, based upon the scale below, that student is awarded an "I", incomplete, on their final report card. The student is required to revisit any standard that has a mastery grade below a 2.0 and remediate that learning target. The student will remain in this process of re-learning until their overall score is at least at a level 2.0, demonstrating an average mastery level of the course material.

Mastery-Based Grading Scale

The Upper School uses a 1- 4 grading scale to assess academic growth. In order to assure future success, students are required to achieve at least a level 2 understanding of the course content. The following table defines each level of mastery:

Academic Standards Scoring Interpretation		
4	Expert	Application of knowledge in meaningful ways; can produce, not just reproduce, knowledge/information.
3	Professional	Got it! Understanding of the concepts & information pertaining to the topic/standard with the ability to independently express and apply understanding.
2	Apprentice	Got something. An average understanding but not enough knowledge to apply information or work independently.
1	Novice	A beginner's knowledge with lots of room for growth and learning but little to no evidence that shows understanding.

Conversion of Grades

At the end of each course, individual standard grades are condensed to create a final grade. This final, numeric grade is then converted from the 1- 4 mastery scale to a letter-based system. For all high school, credit-bearing classes, an additional step is taken to assign quality points. Quality points and earned credits are the two factors used to calculate a student's GPA (grade point average). More specifics can be learned about this process under the "GPA Calculation" section of this guide. Below is the conversion scale used:

Upper School Grade Scale Conversion		
1-4 CBA Scale	Letter Grade Equivalent	GPA Quality Point Equivalent
3.30 - 4.00	A+	4.3
3.00 - 3.29	A	4.0
2.80 - 2.99	A-	3.7
2.63 - 2.79	B+	3.3
2.45 - 2.62	B	3.0
2.30 - 2.44	B-	2.7
2.15 - 2.29	C+	2.3
2.00 - 2.14	C	2.0
0 - 1.99	I (Incomplete)	0.0

* Honors level classes awarded **.5 Quality Point** bonus (ie: A = 4.5, B = 3.5, C = 2.5)
* AP equivalent classes awarded **1.0 Quality Point** bonus (ie: A = 5.0, B = 4.0, C = 3.0)
* Dual Enrollment classes awarded **1.0 Quality Point** bonus (ie: A = 5.0, B = 4.0, C = 3.0)

GPA Calculation

The high school GPA is a number that colleges use to rate the performance of high school students over the course of their high school career. The formula for determining GPA is as follows:

$$\frac{\text{Quality Points Earned}}{\text{Credits Earned}}$$

As students accumulate credits throughout their high school tenure, they also accumulate quality points based upon the final grade. Clayton-Bradley Academy uses the traditional 4.0 scale when determining GPA. Therefore, an "A" in a 1 credit class yields 4 quality points. An "A" in a .5 credit course yields 2 quality points (see conversion scale in "Conversion of Grades" section of this guide).

Bonus quality points are awarded to students who take rigorous classes. An ***Honors*** designated class will earn an additional .5 quality points per 1 credit earned and an ***AP*** class will earn an additional 1 quality point per 1 credit earned. A student who earns an "A" in a 1 credit honors class will earn 4.5 quality points and a student who earns an "A" in a 1 credit AP class will earn 5 quality points.

GPA can be calculated using two methods: weighted and unweighted. The weighted GPA refers to the average that includes bonus quality points earned from honors and AP courses. For college admissions/scholarship purposes, report the weighted GPA unless the unweighted is specifically requested. The unweighted GPA refers to the average of quality points without the additional bonus points for honors and AP classes. Tennessee uses the unweighted GPA to determine eligibility for the HOPE and other state sponsored scholarships.

Example: Student X has completed 25 high school credits and has earned 90 quality points. But, 4 of those credits were earned from honors classes and 2 from AP classes. So, the total quality points earned is 94 (4 x .5 = 2 honors bonus and 2 x 1 = 2 AP bonus). So, the weighted GPA would be 94/25 = 3.76 while the unweighted GPA would be 90/25 = 3.6.

Honors Level and Advanced Placement Classes Offered at CBA

Subject	***Honors (.5 bonus point)***	***Advanced Placement (1 bonus point)***
Humanities	❏ English 1 Hon ❏ English 2 Hon ❏ English 3 Hon ❏ English 4 Hon ❏ Human Geography Hon ❏ Leadership in Civics Hon ❏ US History Hon ❏ Economics and World Studies Hon	❏ AP English Language and Composition ❏ AP English Literature and Composition ❏ AP US History
Math	❏ Integrated Math 1 Hon ❏ Integrated Math 2 Hon ❏ Integrated Math 3 Hon ❏ Introductory Statistics Hon ❏ Precalculus Hon	❏ AP Calculus ❏ AP Statistics
Science	❏ Adv Mechanics Hon ❏ Anatomy Hon ❏ Appalachian Ecology Hon ❏ Biochemistry Hon ❏ Biology I Hon ❏ Botany Hon ❏ Chemistry I Hon ❏ Environmental Science Hon ❏ Experimental Physics: Exploring the World Through Measurement (Honors) ❏ Materials Through Time: Shaping Civilization (Honors) ❏ Microbiology Hon ❏ Organic Chemistry Hon ❏ Physics I Hon ❏ Physics of Collisions Hon ❏ Zoology Hon	❏ AP Biology ❏ AP Environmental Science
World Language	❏ Spanish 3 Hon	

Advanced Placement and Dual Enrollment: College Credit Options

Advanced Placement Classes

In order for a student to gain **college credit** through the AP testing program, the student must achieve a minimum score on a cumulative exam designed by the College Board. AP exams are scored on a 1-5 scale, and students scoring a 3 or higher could receive college credit. Each college or university awards credit for AP classes according to their own standards. Therefore, the number of credits awarded and how the credit is applied varies depending on the college or university. These two links are helpful in understanding more about AP and college credit:

What Is AP? – AP Students | College Board

AP Credit Policy Search

Dual Enrollment College Credit

A student who participates in dual enrollment is simultaneously enrolled in college and high school. Students attend classes at the college of enrollment and are assessed and given credit based upon the grading system of that college. If the student successfully completes the college class, the grade and credit earned are transferred to their high school transcript. The college credit earned is then available for transfer to another college. Acceptance of that credit toward a particular degree path is subject to the guidelines of the receiving college.

In Tennessee, students can receive financial assistance for dual enrollment courses in the junior and senior year providing they meet the minimum qualifications. To read more about eligibility for financial aid, please click here.

Clayton-Bradley values the experience students receive while being taught within the framework of our core instructional practices. Therefore, in general, dual enrollment opportunities will be limited to courses that Clayton-Bradley does not offer.

In order to register for dual enrollment, all CBA students must meet with their high school counselor and submit the following request form. Final approval will require a consent form completed by the student and parent.

Deadlines for dual enrollment vary depending on the college. However, a good guide is to have the application process completed in April for the following Fall semester and in November for the following Spring semester.

High School Course Offerings

Mathematics

Integrated Mathematics 1 Honors — 1.0 Credit

Prerequisites: None

Grade: 9

Integrated Mathematics 1 formalizes and extends the topics of middle school mathematics. A deep understanding of linear relationships develops through building linear models to fit data, constructing and solving systems of linear equations, and contrasting linear expressions with phenomena that exhibit exponential rates of change. The course then connects algebraic and geometric ideas through the study of rigid transformations and congruence of shapes, which is then extended to transformations of functions.

Integrated Mathematics 2 Honors — 1.0 Credit

Prerequisite: Integrated Mathematics 1

Grades: 9, 10 (9th grade students must be instructor-recommended to take IM2)

Integrated Mathematics 2 introduces students to the logic and structure of mathematical proof, focusing on the geometry of lines, angles, circles and polygons. The algebraic focus of the course is on quadratic equations and functions, and how their characteristics compare to the linear and exponential models from IM1. In addition to quadratic functions, the final quarter focuses on radical functions and equations, operations with radicals, and solving radical equations.

Integrated Mathematics 3 Honors — 1.0 Credit

Prerequisite: Integrated Mathematics 2

Grades: 10, 11

Integrated Mathematics 3 is a course that allows students to develop a broader understanding of many algebraic and geometric concepts first encountered in Integrated Math 1 and 2. This includes the study of functions and their inverses, including polynomial, rational and radical functions, and particularly concentrating on the relationship between exponential and logarithmic functions. Emphasis is placed on choosing appropriate mathematics to model and analyze diverse empirical situations. Geometry topics in IM3 include similarity and trigonometry of right triangles, preparing students for a deeper study of trigonometry in Precalculus.

Special Topics in Mathematics

1.0 Credit

Prerequisite or Corequisite: Integrated Mathematics 3
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

This advanced course explores fascinating mathematical topics beyond the Integrated Math Sequence. Students will delve into subjects such as conic sections, complex numbers, fractals, graph theory, formal logic and mathematical proofs, number theory, vectors and matrices, parametric equations, and polar coordinates. Additional topics may be covered based on time and student interest. Through a combination of projects and traditional assessments, students will develop deeper problem-solving skills while discovering advanced mathematical concepts. This course is ideal for students who have excelled in the Integrated Math sequence and are eager to challenge themselves with sophisticated mathematical ideas.

Precalculus Honors

1.0 Credit

Prerequisite: Integrated Mathematics 3
Grade: 11, 12

Precalculus focuses on the algebraic and geometrical techniques and functions needed to prepare students for the study of calculus, physics and other sciences and engineering. It is designed for students who intend to take Calculus, or enroll in a Calculus course in college. Strong emphasis is placed on the study of trigonometric functions, their inverses and identities as well as trigonometry of right and obtuse triangles. A rigorous review of the essential algebraic and graphing skills used in calculus is provided through investigations of the function families from the Integrated Math sequence and the types of phenomena they can be used to model. The course concludes with an introduction to the foundational topic of calculus: limits.

Introductory Statistics

1.0 Credit

Prerequisite: Integrated Mathematics 2
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

A project-based introductory course in statistics. The objectives of this course are for students to gain an intuitive understanding of statistical principles and methods and to critically assess statistical work done by others. Students will complete projects that provide hands-on experience with statistical software and will develop expertise with elementary statistical techniques as they investigate the following topics: methods for collecting, analyzing and displaying data; correlation and linear regression; normal distributions, probability, and statistical inference.

AP Statistics

1.0 Credit

Prerequisite: IM3 / Instructor Recommendation Required
Grades: 11, 12 (qualified sophomores admitted with instructor approval)

Note: This course may not be offered every academic year.

An introduction to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring and describing patterns in data; planning and conducting a study or experiment; exploring random phenomena using probability and simulation; and estimating population parameters and testing hypotheses using statistical inference. The successful student in this course should expect to spend a significant amount of time on out-of-class assignments. Students will be prepared to take the AP Statistics Exam and if successful, can receive credit, advanced placement or both for a one-semester introductory college statistics course.

AP Calculus AB

1.0 Credit

Prerequisite: PreCalculus / Instructor Recommendation Required
Grades: 11, 12

The overall goal of this course is to help students understand and apply the three big ideas of Calculus: limits, derivatives, and integrals. Throughout the course, students employ a variety of mathematical practices: reasoning with definitions and theorems, connecting concepts, implementing algebraic/computational processes, connecting multiple representations, building notational fluency, and communicating mathematics orally and in well-written sentences. Computer software and graphing calculators are important tools that will be frequently employed in the course. Students enrolling in calculus should have procedural fluency in algebra, and strong content knowledge of all function families in the Integrated Math and Precalculus curriculum. The successful student in this course should expect to spend a significant amount of time on out-of-class assignments. Students will be prepared to take the AP Calculus AB Exam and if successful, can receive credit, advanced placement or both for a college Calculus 1 course.

AP Calculus BC

1.0 Credit

Prerequisite: APCalculusAB / Instructor Recommendation Required
Grades: 11, 12

Note: This course may not be offered every academic year.

This course builds on the concepts from Calculus AB, including limits, derivatives, and integrals. Students will further develop advanced mathematical practices and use technology regularly to delve deeper into additional calculus topics including improper integrals, parametric equations and polar coordinates, differential equations, and series. Students should have a strong foundation in Calculus AB and algebra. The successful student in this course should expect to spend a significant amount of time on out-of-class assignments. Students will be prepared to take the AP Calculus BC Exam and if successful, can receive credit, advanced placement or both for a college Calculus 2 course.

Science

Advanced Mechanics Honors

0.5 Credit

Prerequisite: Honors Physics / Instructor Recommendation Required
Grade: 11, 12

Note: This course may not be offered every academic year.

Advanced Mechanics is a rigorous, college-level course covering advanced concepts of motion, energy, work, and their relationship. The course will be separated into three main areas:

- Projectile motion will extend the one-dimensional projectile motion covered in Honors Physics to projectile motion in two dimensions.
- The relationship between force, motion, energy, and impulse will be extended to cover collisions between objects of different mass and will look specifically at mechanisms to affect those variables during collisions.
- Uniform circular motion will expand on the concept of objects that move at a constant speed, constant radius, or constantly changing velocity and introduce the concept of centripetal force as the force that causes the object to continuously change its direction.

The course will be both conceptual and practical and will address real-world examples of phenomena that are governed by the respective topics. Students will need to be comfortable with advanced algebra, graphical analysis, and entry-level calculus concepts.

Anatomy Honors

0.5 Credit

Prerequisite: Biology I
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

This course provides an in-depth exploration of human body systems, their structure, and interconnected functions. Students will investigate the complex relationships between different anatomical structures, examining how each system contributes to overall human health and physiological processes. Through interactive dissections, models, and comparative studies, learners will develop a comprehensive understanding of human body organization and its remarkable adaptive capabilities.

AP Biology

1.0 Credit

Prerequisites: Biology I and Chemistry I / Instructor Recommendation Required
Grade: 11, 12

Note: This course may not be offered every academic year.

AP Biology is a rigorous and demanding course, which is the equivalent of an introductory college biology course. Content is more comprehensive than Biology 1, with a greater emphasis on data interpretation and analysis, including statistical analysis of data and concepts modeling. A

significant amount of studying must be completed at home to allow time for discussion, labs, and inquiry during class time.

AP Environmental Science

1.0 Credit

Prerequisite: Biology I & Chemistry I / Instructor Recommendation Required
Grades: 10, 11,12

Note: This course may not be offered every academic year.

The Environmental Science course provides students with scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. Students will identify and analyze environmental problems both natural and human-made. Students will evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. The class is Project Based and will prepare students for the AP Environmental Exam.

Appalachian Ecology Honors

0.5 Credit

Prerequisite: Biology I
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

The Appalachian mountains are believed to be the oldest mountains in the world. This longevity has allowed for the development of a very diverse ecosystem. This is especially true in the Southern part of the range, the Great Smoky Mountains. This course will explore the geology, the flora, and the fauna of the Appalachian mountains and how they interact as a complex ecosystem.

Biology I Honors

1.0 Credit

Prerequisites: None
Grade: 9

Students will investigate biological systems at the molecular, cellular, and macrobiological level. Hands-on laboratory exercises incorporating cellular biology, genetics, DNA technology, evolution, and ecology will be provided to assist students in their understanding of biological themes. Projects and reading assignments may be required with each unit of instruction.

Botany Honors

0.5 Credit

Prerequisite: Biology I
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

Humans are inextricably connected to the plant world around us. We use plants in almost every aspect of our lives from food to furniture. Understanding how plants work is essential to being able to use them and to help them survive. In this class we will explore plant morphology and functions, plant taxonomy, plant disease, and plant adaptations. We will also investigate Tennessee's physiographic regions and their plant communities. Additionally, we will look at the economic and ecological impacts of plants in cultures around the world.

Chemistry I Honors — 1.0 Credit

Prerequisite: Biology I and Integrated Math I
Grades: 10, 11, 12

Students explore the fundamental principles of chemistry which characterize the properties of matter and how it reacts. Computer-based and traditional laboratory techniques are used to obtain, organize and analyze data. Conclusions are developed using both qualitative and quantitative procedures. Topics include, but are not limited to: measurement, atomic structure, the periodic table, chemical bonding, gas laws, properties of liquids and solids, solutions, stoichiometry, reactions, kinetics, equilibrium, acids and bases, and nuclear chemistry.

Environmental Science Honors — 0.5 Credit

Prerequisite: Biology I
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

The Environmental Science course provides students with scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. Students will identify and analyze environmental problems both natural and human-made. Students will evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

Environmental Sustainability — 0.5 Credit

Prerequisite: Biology I
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

Explore practical environmental stewardship through immersive field experiences. Students will engage in ecological projects including organic gardening techniques, composting systems, invasive species management, and beekeeping. This course combines scientific theory with direct ecosystem intervention, empowering students to understand and actively contribute to local environmental conservation. Participants will develop critical skills in habitat restoration, sustainable agriculture, and biodiversity preservation while gaining firsthand experience in ecological management strategies.

Experimental Physics: Exploring the World Through Measurement (Honors) — 0.5 Credit

Prerequisite: Physics I
Grades: 11,12

Note: This course may not be offered every academic year.

This hands-on course delves into the exciting world of experimental physics, where students learn to explore and understand the world through direct observation and measurement. "Experimental Physics" goes beyond traditional textbook learning, providing students with the opportunity to design, build, and conduct their own experiments, just like real scientists. Students will learn the fundamentals of data acquisition and control, utilizing both off-the-shelf instruments and

student-developed tools to collect and analyze data. Students will develop essential skills in experimental design, data analysis, scientific communication, and problem-solving. This course fosters critical thinking, creativity, and a deep understanding of the scientific method, preparing students for future studies and careers in STEM fields. A Strong interest in science and a willingness to explore are essential.

Materials Through Time: Shaping Civilization (Honors) 0.5 Credit

Prerequisite: Chemistry I
Grades: 11,12

Note: This course may not be offered every academic year.

From the Stone Age to the Silicon Age, materials have been the driving force behind human progress. This course, "Materials Through Time: Shaping Civilization," explores the fascinating story of how materials have shaped our world, examining the relationship between a material's structure, its properties, and its impact on society throughout history. Students will journey through time, discovering how the mastery of different materials – from stone and bronze to steel and semiconductors – has enabled technological advancements and transformed the way we live. The course covers major classes of materials, including metals, ceramics, polymers, and composites, examining their unique characteristics and uses in various historical periods. Through hands-on activities, experiments, and real-world examples, students will discover how materials are selected and engineered for specific applications, from the tools of early humans to the cutting-edge technologies of today. This course will foster critical thinking, problem-solving skills, and an appreciation for the crucial role materials have played, and continue to play, in shaping our world. No prior knowledge of materials science is required.

Microbiology Honors 0.5 Credit

Prerequisite: Biology I
Grades: 10, 11,12

Note: This course may not be offered every academic year.

Microbiology is the study of microscopic organisms. This includes viruses, bacteria, fungi, algae, and protozoa. In this class, students will explore each of these divisions of microbiology with a focus on the history of each discipline, what defines organisms in each group, biodiversity within each division, careers in each field, and human impacts on and from each group. The course will be research and student driven with hands-on microbiology projects and experiments throughout the course.

Organic Chemistry & Biochemistry Honors 1.0 Credit

Prerequisite: Biology I & Chemistry I
Grade: 11,12

Note: This course may not be offered every academic year.

Organic chemistry is a branch of general chemistry that focuses on carbon-based compounds. Starting with the simplest molecules, alkanes (carbon chains bound to hydrogen atoms), then the course expands to examine more complex molecules, including their basic properties, how they can be synthesized, and how they interact with other molecules.

Biochemistry is the study of chemical processes within living organisms. This course provides an introduction to fundamental concepts in biochemistry including biomolecules, enzymes, metabolism, genetics, and nutrition. Through hands-on lab activities and projects, students will investigate enzymes, DNA, gene expression, carbohydrate metabolism, and bioenergetics. This course allows students to gain exposure to biochemistry principles and applications as they relate to medicine, agriculture, food science, and nutrition.

Physics I Honors

1.0 Credit

Prerequisites: Biology I and Integrated Math 2

Grade: 10, 11, 12

In this laboratory-based course, students learn the basic motions of the universe and the equations that describe them. Topics include Newtonian physics, thermal physics and fluid dynamics, waves and optics, electricity and magnetism, and atomic and nuclear physics. Students will perform experiments and interpret the results of observations, activities which involve the assessment of experimental errors and uncertainties.

Physics of Collisions Honors

0.5 Credit

Prerequisite: Physics I

Grade: 11,12

Note: This course may not be offered every academic year.

This honors physics course delves into the fascinating and real-world applications of physics principles to understand the dynamics of car collisions. Students will explore fundamental concepts such as conservation of momentum, the work-energy theorem, and the impulse-momentum change, applying them to analyze and interpret the complex interactions that occur during vehicular impacts. Through a combination of theoretical study, hands-on experiments, simulations, and case studies, students will develop a deep understanding of the physics behind car crashes, including the factors that contribute to vehicle damage and occupant injury. This course will challenge students to think critically, solve complex problems, and develop a strong foundation in mechanics, preparing them for future studies in physics, engineering, and related fields.

Unplugged and Outside

0.5 Credit

Prerequisites: Biology I

Grades: 10, 11, 12

Note: This course may not be offered every academic year.

An intensive, technology-free outdoor experience combining ecological stewardship with primitive survival techniques. Students will develop critical skills in sustainable living through hands-on projects including organic gardening, composting, invasive species removal, and beekeeping. Wilderness survival instruction covers essential skills such as shelter construction, fire building without modern tools, wild plant identification, traditional cordage making, and natural navigation. This course challenges participants to connect deeply with natural environments,

developing practical ecological knowledge and self-reliance through direct, immersive learning experiences.

NOTE: This course will satisfy the additional 0.5 credit of PE students are required to take.

Zoology Honors — 0.5 Credit

Prerequisites: Biology I

Grades: 10, 11, 12

Note: This course may not be offered every academic year.

All living things are interconnected. In this class, students will gain an understanding of how animals are connected to each other, their environment, and the world, including humans. Students will explore how worldwide activities of humans can contribute to animal diversity both positively and negatively and how humans are dependent on animal species for advances in medicine, ecosystem maintenance, and food supply. Additionally, we will explore how animals are grouped by major body plans, the anatomical and physiological characteristics of animals, and how animals interact with themselves and their environment.

Humanities

Human Geography Honors — 1.0 Credit

Prerequisites: None

Grade: 9

Human Geography is the 9th grade Social Studies course. Students engage in an interactive investigation of global issues by asking the questions: where are we, how many are there of us, what do we do, and what is our place. Students engage in interdisciplinary studies that consider humanity and being human in light of population and migration. They will gain a theoretical grounding in human geography and practical knowledge of maps and places as they consider their place in the world and their responsibility as members of a global community.

English 1 Honors — 1.0 Credit

Prerequisites: None

Grade: 9

English 1 Honors situates students into secondary reading and writing. Based on the Common Core standards and integrated with Introduction to Humanities, English 1 focuses on informative and argumentative writing with projects based on research and the initial developments of a writer's voice. Text selection varies with a 60/40 balance of literary over informative. Past texts have included: *Siddhartha, The Alchemist, A River Runs Through It, Inherit the Wind,* and *1984*. English 1 also serves as the introduction of students to our Harkness pedagogy.

Leadership in Civics Honors

1.0 Credit

Prerequisite: Human Geography
Grade: 10

Productive civic engagement requires a deep knowledge of the structure of our government and the democratic principles that contributed to the formation of our American society. It also dictates the ability to responsibly participate in civic and democratic processes. In this course, students will explore the foundational principles that form the core of our political system, as well as learn how to engage their communities through individual and collaborative efforts. Through the use of primary source annotation, current events analysis, and the study of surveys and statistics, students will develop the skills necessary to be responsible members of their community.

English 2 Honors

1.0 Credit

Prerequisite: English 1
Grade: 10

The English 2 curriculum explores various topics in conjunction with the tenth-grade civics class, including immigration and citizenship, the criminal justice system, civic participation and advocacy, and the essentials of informed civil discourse. In addition to participating in group discussion and projects, students will write frequently and in a variety of formats, conduct individual research, and study various texts and other media, including general non-fiction, young adult fiction, classic literature, feature films, and documentaries. Past selections include *We Are Not From Here, Just Mercy* (memoir), *Just Mercy* (feature film), *A Field Guide to Lies, The Social Dilemma, Fahrenheit 451,* and *They Say, I Say.*

United States History Honors

1.0 Credit

Prerequisite: Leadership in Civics
Grade: 11

US History is the 11th grade level Social Studies course. It asks students to answer the question: *What does it mean to be American?* Students in the Humanities program will enjoy an integrated curriculum that combines instruction in both English/Language Arts and Social Studies. Both English 3 and US History will focus on key techniques to inspire depth of thought in students including: close reading of informative and literary texts, rhetorical analysis of texts, participation in Harkness discussions. In US History, students will investigate themes and events that contribute toward an understanding of American culture, history, and identity. The US History course will cover events from the founding of Jamestown in 1607 to the War on Terror in the early 2000s.

AP United States History

1.0 Credit

Prerequisite: Leadership in Civics / Instructor Recommendation Required
Grade: 11

Students enrolled in the Advanced Honors US History class will study American history from pre-European contact (1491) to the War on Terror in the early 2000s. Students will continue to participate in an integrated curriculum that stresses rhetorical analysis of texts as well as group

discussion. The curriculum is accelerated in order to cover more events in greater detail as well as adequately prepare students to take the AP US History exam. The expectations for this course include, but are not limited to: daily readings, examinations, rhetorical analysis of texts, group and individual projects, participation in Harkness discussions.

English 3 Honors

1.0 Credit

Prerequisite: English 2 Honors
Grade: 11

The English 3 Honors course requires students to become skilled readers of prose written in a variety of rhetorical contexts and skilled writers who compose for a variety of purposes. Both their reading and writing should make students aware of interactions among a writer's purposes, reader expectations, and an author's propositional content, as well as the genre conventions and the resources of language that contribute to the effectiveness in writing.

At the heart of a language and composition course is the reading of various texts. Reading facilitates informed citizenship and thus increases students' capacity to enter into consequential conversations with others about the meaningful issues. Students seek to answer: *What does it mean to be American?* Also contributing to students' informed citizenship is their ability to gather source materials representing particular conversations and then make their own reasonable and informed contributions to those conversations. Students' ability to engage with outside sources in their reading, writing, and research is an important measure of their intellectual growth. Past texts include *The Crucible, Hamilton, The Great Gatsby,Of Mice and Men,* and *The Narrative of Frederick Douglass.*

AP Language and Composition

1.0 Credit

Prerequisite: English 2 Honors / Instructor Recommendation Required
Grade: 11

Students enrolled at the advanced honors level will study language, rhetoric, and argumentation in much the same way as those in the honors class (see course description above), but at a faster pace and in more depth, with more challenging reading and writing assignments. In addition, advanced honors students will hone skills specific to the AP English Language and Composition Exam (such as timed writing and multiple choice strategies) to prepare them to sit for the test in May.

Economics and World Studies Honors

1.0 Credit

Prerequisite: US History
Grade: 12

Economics and World Studies is the 12th grade level Humanities course. Students in the Humanities program engage in an integrated curriculum that combines instruction in both ELA and Social Studies. Economics and World Studies students will focus on key techniques to inspire depth of thought in students including: deep understanding of literary and informative texts, rhetorical analysis of texts, and exemplary participation in Harkness discussions.

In Economics (Fall semester) students will investigate the economic phenomena that influence both individuals and world markets. In World Studies (Spring semester) students will read texts related to their senior trip and prepare to engage in that trip both intellectually and emotionally.

Additionally, students will use class to communicate the impacts of their trip to the Clayton-Bradley community.

English 4 Honors

1.0 Credit

Prerequisite: English 3 Honors
Grade: 12

This English literature and composition course engages students in the careful reading and critical analysis of classic and contemporary literature. Through the close examination of selected texts, students will deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students will consider a work's structure, style and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. In addition to many short stories and poems, past texts include Shakespearean plays *Hamlet, Twelfth Night,* and *As You Like It*; classic British novels *Frankenstein* and *Great Expectations*; comedic classics *Rosencrantz & Guildenstern Are Dead* and *Candide*; culturally diverse texts *Ceremony* and *The House on Mango Street*; and modern literary classics including *A Death in the Family* and *Hamnet.*

AP Literature and Composition

1.0 Credit

Prerequisite: English 3 Honors or AP Lang & Comp / Instructor Recommendation Required
Grade: 12

Students enrolled at the advanced honors level will study literature and composition in much the same way as those in the honors class (see course description above), but at a faster pace and in more depth, with more challenging reading and writing assignments. In addition, advanced honors students will hone skills specific to the AP English Literature and Composition Exam (such as timed writing and multiple choice strategies) to prepare them to sit for the test in May.

Contemplative Literature

0.5 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

This course introduces students to the literature of reflection. Each session will be anchored by a contemplative literary piece which will be complemented by mindful listening, diaphragmatic breathing, gratitude journals, progressive muscle relaxation, affirmations, journal reflections, and concentrated silent walks. Through these practices students can learn stress reduction techniques while engaging with their own positive social-emotional wellbeing. Potential authors include: Henry David Thoreau, C.S. Lewis, Rumi, Thomas Merton, Epictetus, Walt Whitman, Ralph Waldo Emerson, Lao Tzu, Terry Tempest Williams, John Muir, Emmet Fox and others. Based on Patricia A. Jennings's Mindfulness for Teachers.

Creative Writing

0.5 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

In this elective course, students will have an opportunity to experiment with writing in various genres, such as the short story, personal narrative, and poetry. Throughout the semester, they will read exemplary texts to spark their imaginations, learn the literary elements of engaging writing (such as imagery, dialogue, and character development), and invent their own works of fiction. By semester's end, each student will have a portfolio of polished creative works as well as many ideas for future projects. This class may be repeated by students wishing to further improve their writing.

Film Analysis

0.5 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

This course explores the evolution of film, from its invention and early silent-era experiments to the blockbusters and independent films of today. Students will learn the language of film, including cinematography, editing, sound, and mise-en-scène, while also studying narrative structure and storytelling techniques. Beyond aesthetics, we will examine film's cultural and historical significance, exploring how movies reflect and influence society. Through screenings, discussions, and written analyses, students will develop a deeper understanding of film as both an art form and a powerful medium for communication and storytelling.

Introduction to Psychology

1.0 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

Discover the fascinating world of psychology in this introductory course! You'll explore what psychology is all about, from understanding human behavior to diving into the science of happiness and mindfulness. Through interactive lessons and thought-provoking discussions, you'll learn how the mind works, how emotions influence us, and how to cultivate well-being in your own life.

Key topics include:

- What is Psychology?: Understand the basics of the science of behavior and mental processes.
- The Science of Happiness: Learn what makes us feel good and how to increase happiness in your life.
- Mindfulness: Explore techniques for managing stress, improving focus, and achieving mental clarity.

By the end of the course, you'll have a deeper understanding of the mind, as well as practical tools to enhance your emotional health and mental well-being.

Japanese Language and Culture

1.0 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

In this course, students will learn basic communication skills in Japanese, including simple grammatical structures, common phrases for conversation, and phonetic writing systems (Katakana and Hiragana). They will also explore Japanese culture through field studies, guest speakers, and various mediums (such as tv, movies, and books). Although the class will involve regular movement and engaging activities, students should also be prepared for academic exercises, including skill-based assessments, class presentations, and projects.

Medieval Studies

0.5 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

Medieval Studies is an interdisciplinary course that combines the study of history, literature, philosophy, and art in the Medieval Period. Students will investigate the ramifications of a feudal society, the changing economic conditions of an increasingly connected Europe, and the development and steady consolidation of power in the nation-state.

Nature Writing

0.5 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

In this elective course, students will read texts, write papers, and participate in outdoor excursions that prompt them to contemplate their relationship to the natural world. The class content will draw on an array of classical and contemporary environmental writers possibly including John Muir, Gretchen Legler, Henry David Thoreau, Marjory Stoneman Douglas, Annie Dillard, Horace Kephart, Edward Abbey, Terry Tempest Williams, and Aldo Leopold. Harkness discussions will be far-reaching, and students will emerge with a clearer sense of environmental literature's aesthetic and ideological contours. Written work will afford students the chance to practice the close observation and precise attention to detail required in writing effectively about the natural world (and in scientific writing). In order to foster a deeper connection to the local landscape and to better understand human interaction with it.

Philosophy

1.0 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

This course introduces students to fundamental philosophical questions about existence, knowledge, morality, and reality. Students will study key philosophers such as Socrates, Plato, Aristotle, Descartes, and Kant, exploring concepts like ethics, logic, and the mind-body problem. The course will also focus on recognizing logical fallacies, helping students sharpen their reasoning skills. Through readings and discussions, students will develop the ability to think critically and engage with some of the most thought-provoking ideas in philosophy.

Poetry

0.5 Credit

Prerequisite: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

In this course, students will read and analyze poetry, write poetry in various forms, and workshop their writing with others. The course will culminate in a publication of student work, such as a literary magazine.

World Language

Spanish 1

1.0 Credit

Prerequisites: None
Grades: 9

This introductory course is designed for students with little or no previous study of Spanish. Some students in class might have studied Spanish in middle school, but have not grasped some of the important structures of the language. This course teaches basic grammar structures and vocabulary with a focus on all four communicative skills: listening, speaking, reading, and writing. Continuous practice and comprehensible input are components which are more central to this initial course than to advanced courses. History and culture are explored through readings, presentations, and student research projects. Students may also be assessed by means of written tests, quizzes, and possibly by means of oral activities.

Spanish 2

1.0 Credit

Prerequisite: Spanish 1
Grades: 10

This course builds up on the Spanish competence/knowledge that was acquired in Spanish 1. The focus is also on all communicative skills, listening, speaking, reading, and writing, but there is an increased emphasis on grammatical accuracy. Students are exposed to the Spanish language more frequently than in level 1, both in written and spoken formats, and they are expected to use Spanish as the principal means of communication during class. History and culture are explored through readings, presentations, and student research projects which are presented in the target language when possible. In addition, students are assessed by means of written tests, quizzes, and possibly by means of oral activities.

Spanish 3 Honors

1.0 Credit

Prerequisites: Spanish 1 and 2
Grades: 11, 12

Note: This course may not be offered every academic year.

The curriculum for Spanish 3 is intended to engage students in spoken and written communication in Spanish by also using the resources of the other two language skills, listening and reading. Through the study of thematic vocabulary and more advanced grammatical structures, students are able to gain a more advanced knowledge of the target language, identify and imitate appropriate body language, intonation, and common idiomatic expressions through social interaction. History and culture are explored not only through readings, presentations, and student research projects presented in the target language, but also through concrete experiences. In addition, students are assessed by means of written tests, quizzes, and possibly by means of oral activities.

Integrated/Related Content

Base Camp - Freshmen Orientation

0.5 Credit

Prerequisites: None

Grades: 9

Welcome to high school! Base Camp begins CBA students' advancement in our Summit Series curriculum. This battery of courses focus on five skills: papers, portfolios, proposals, presentations, and products. Colloquially titled the 5Ps. In Base Camp we begin the journey which will ultimately culminate with summiting their Capstone Projects. Modeled after an Mt. Everest expedition structure, Base Camp is where trekkers acclimatize to the environment, learn the lay of the land, prepare for their journey, and start their climb. Therefore, in Base Camp we will learn the basic skills to thrive in high school and life after CBA.

Wellness

1.0 Credit

Prerequisites: None

Grades: 9, 10

Wellness is a lifelong process of a positive lifestyle. Health is the quality of one's life. Good health is a product of many factors. Health/Wellness is designed to teach students the skills needed to make responsible decisions regarding their health. Health and Wellness students participate in classroom and gym instruction. Classroom instruction includes substance abuse, personal fitness, nutrition, first aid and safety, mental health, disease prevention, and family life.

Navigation - Career Preparation

0.5 Credit

Prerequisites: None

Grade: 10

The Navigation course is designed to assist students through self-discovery while they create realistic goals for success. In this course, they will identify career pathways that fit their personal strengths, aptitudes, and passions. Furthermore, they will develop skills that are required to map an achievable individualized plan while considering necessary life and professional skills to be

successful. Students' abilities to make connections between education, career, and opportunity are enhanced as they create personal checkpoints along their journey toward a desired destination.

Expedition - Career Experience

0.5 Credit

Prerequisites: None
Grade: 11

In this course, students participate in activities designed to create a bridge between the classroom and the awaiting real world. Combining college and career exploration with a mandatory internship experience in a local, professional setting, this class builds competence and confidence in the skills needed to determine one's career goals and work towards attaining them. This class also serves as preparation for Summit, our Senior Capstone experience.

Personal Finance

0.5 Credit

Prerequisite: None
Grades: 11

In Personal Finance (which is a requirement to graduate), students learn the basics of financial responsibility and determine their personal financial needs and goals for the future. During this course, students will explore college and career options, research funding methods for higher education, learn how to budget their income, discover saving and investing strategies, and find out how to use credit wisely.

Summit - Senior Capstone

1.0 Credit

Prerequisites: Expedition
Grade: 12

This class serves as a platform for seniors to culminate their K-12 educational experience. The Senior Capstone Experience consists of a series of interrelated components including an original research paper, a designed or earned (through certification) product, a comprehensive portfolio, and a culminating presentation. Seniors further their academic prowess through extensive research on a topic of interest connected to future aspirations and passionate investigation. They then parlay this research into the creation of a product to serve as a tangible outcome of their project. Products can include but are not limited to certifications from further training/internships, research prototypes, or physical items. Each student maintains a digital portfolio that serves as a comprehensive record of meaningful experiences. Finally, students wrap up their capstone project with a culminating presentation.

Physical Education

0.5 Credit

Prerequisites: None
Grades: 9, 10, 11, 12

At CBA, students have the opportunity to earn .5 credit by participating in a full, competitive season of a qualifying sports program or completing 60 hours of personal training that can be verified by a

coach, fitness instructor, or personal trainer. In order to finalize the .5 credit in PE, students must submit the accompanying paperwork to the school counselor.

Fine Arts

Singers

1.0 Credit

*Prerequisite: **Audition** with instructor and **one year** of choral experience at CBA or previous school.*
Grades: 9, 10, 11, 12

Singers is a vocal ensemble highly motivated to excel in vocal performance. Students rehearse and perform a variety of musical styles including madrigals from the medieval, Renaissance, and Baroque periods to contemporary, pop, and classical selections. Students will learn to manage technical demands, apply artistic expression, and polish performance techniques. Emphasis is on developing musicianship and ensemble singing skills with the goal of understanding these musical styles and experiencing the joy of public performance.

Strings

1.0 Credit

*Prerequisites: T**wo year minimum** of strings experience at CBA or previous school.*
Grades: 9, 10, 11, 12

This class is designed for students to learn or advance their learning on one of several stringed instruments including violin, viola, cello, and bass. Students are taught music history, music theory, skills related to performance, group dynamics, and ensemble artistry.

We play our instruments in a chamber-like setting to further our ability at being a strong, well versed musician. We further techniques with vibrato, higher positions for shifting, more complex and challenging music. This group is asked to perform for lots of community events at area schools, businesses, events, graduation, and numerous activities. We perform at CBA's Holiday Concert in December and the Fine Arts Gala in May. We will compete at a music festival/competition in May. Students also have the opportunity to audition to perform at ETSBOA All East in Gatlinburg, TN in February and All State in Nashville, TN in March or April.

Music Theory & History

1.0 Credit

Prerequisites: None
Grades: 10, 11, 12

<u>Note</u>: This course may not be offered every academic year.

In Music History, students study the western fine arts traditions in music in ancient Greece, the Middle Ages, the Renaissance, and the Baroque Era. We will also study the western fine arts traditions in music in the Classical, Romantic, and Modern eras. Reading, listening, analysis, and research projects are required. Music Theory introduces students to the fundamentals of music, including notation, rhythm, scales, intervals, chords, and harmony. Students will develop skills in

reading and writing music, ear training, and sight-singing. The course emphasizes understanding the structure of music and enhances students' abilities in performance and composition.

Intro to Studio Art

1.0 Credit

Prerequisites: None

Grades: 9, 10, 11, 12

This is a beginning art course, and is a prerequisite for Advanced Studio Art. Open to students in grades 9 through 12, the course offers an opportunity for self-expression utilizing two dimensions: height and width - a flat surface. A variety of dry and wet media - along with drawing, painting, and printing techniques - are introduced. The artworks and styles of different peoples, time periods and cultures are explored, and an understanding of the Elements of Art and Principles of Design is emphasized.

Advanced Studio Art

1.0 Credit

Prerequisites: Intro to Studio Art

Grades: 10, 11, 12

This course is a continuation of Intro to Studio Art. This course is not media specific, and students will be responsible for exploring in-depth specific media. For example, students will make a cogent body of work using a selected media or themed topic. Open to students in grades 10 through 12, the course offers an opportunity for self-expression utilizing two dimensions: height and width - a flat surface. The artworks and styles of different peoples, time periods and cultures are explored, and an understanding of the Elements of Art and Principles of Design is emphasized.

Sculpture

0.5 Credit

Prerequisites: Intro to Studio Art

Grades: 10, 11, 12

Note: This course may not be offered every academic year.

In this course, students will use problem solving and creativity to build artworks from various mediums, including wood, cardboard, paper mache, wire, and clay. Students will also be introduced to and will get hands-on experience using set design techniques for the Spring Musical.

Watercolor Techniques

0.5 Credit

Prerequisites: Intro to Studio Art

Grades: 10, 11, 12

Note: This course may not be offered every academic year.

This course will be taught using National Art Standards to give students a more in-depth understanding of the medium of watercolor and its various techniques. We will also explore different watercolor artists and discuss the many options for career choices that this medium can afford.

Cinema & Photography

1.0 Credit

Prerequisites: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

This hands-on course explores visual storytelling through photography and filmmaking, focusing on technical skill development. Students will begin with still photography, learning camera operation, composition, lighting, and storytelling. The course will then shift to motion pictures, examining how movement affects composition and visual language. Students will explore cinematography, sound design, and narrative structure, quickly moving to create short films. Through projects and critiques, students will develop the skills to bring their creative ideas to life, empowering them to thrive in a visually driven world and shape the future.

Technical Theater

1.0 Credit

Prerequisites: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

A comprehensive introduction to technical theater production, serving as a technical arm for the school's theatrical productions. Students will gain hands-on experience progressing from foundational skills to advanced technical operations through practical projects and live production work.

Throughout the year, students will develop expertise in multiple areas by rotating through various technical positions such as, but not limited to, set construction, marketing, stage management, and lighting, while discovering their specific interests within technical theater.

Course requirements will be the following: participation in a minimum of one CBA production, regular workshop sessions, safety certification completion, technical design project, production crew assignments, and final portfolio submission. Required materials include closed-toe shoes, a basic tool kit, safety glasses, and a technical theater handbook.

Theater Arts

1.0 Credit

Prerequisites: None
Grades: 9, 10, 11, 12

Note: This course may not be offered every academic year.

This course is an overview of theatre arts. Students learn the basic acting techniques, theatre terminology, playwriting, improvisation, skills in developing a character, scene performance and monologues. Emphasis is placed on confidence building as well as team building through improvisation and acting. This is a semester-long course.

Technology & Engineering

Designing with the Pros

0.5 Credit

Prerequisites: None
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

This exciting course opportunity partners CBA students with a team of professionals from Clayton Homes through the award winning ACE (architecture, construction, engineering) Mentorship Program. ACE gives students a practical hands-on view of how abstract concepts get transformed into the buildings that make up your everyday reality. Students will be led through a mock Clayton Homes project from start to finish through weekly visits and project training from the Clayton Homes Team. Students will learn all aspects of a building project including site selection, architectural design, budgeting, interior design and much more. This course not only introduces students to ACE careers but also teaches invaluable job skills including time management, budgeting, interviewing and collaboration. Students will visit professional offices, job sites and other relevant locations.

NOTE: Class size is limited to 16 students. Letters of recommendation from teachers may be required.

Project Based Engineering

0.5 Credit

Prerequisites: None
Grades 9, 10, 11, 12

This two-quarter class gives students the opportunity to work in a state of the art engineering facility with access to the latest CAD, 3D printing, computing and microcontroller platforms. Projects teaching aspects of mechanical design, microelectronics, and coding are focused in the design challenge scopes of autonomous vehicle navigation or prosthetic design; two areas where CBA has started to develop a rich tradition. Students learn to think like an engineer and solve open-ended problems by following the engineering design process - Define, Imagine, Plan, Create, Analyze, Improve & Communicate. Essential to this process is the ability to "learn how to learn something new" by formulating one's own line of questioning and thus building skills for lifelong learning.

Leadership

Introduction to Business & Marketing

0.5 Credit

Prerequisites: None
Grades: 10, 11, 12

Note: This course may not be offered every academic year.

Welcome to Introduction to Business and Marketing! In this class, we'll be partnering with DECA and using programs like Adobe Express to create and explore in fun ways.

Here's a sneak peek at what you'll do in this course:

- Learn Marketing Basics: Discover how businesses create brands, build advertising campaigns, and learn to create your own personal brand.
- Project-Based Business: You'll be working on hands-on projects that mirror real-life business situations. From brainstorming product ideas to creating marketing strategies, you'll apply what you learn directly to exciting projects such as the Food Truck Challenge.
- DECA Challenges: Get a taste of DECA competitions by taking on challenges that will test your creativity, problem-solving, and teamwork.

By the end of the course, you'll have a basic understanding of business and marketing principles and experience with industry programs and trends. You'll also gain confidence, creativity, and teamwork skills that are essential in today's world.

Are you ready to step into the world of business, get creative, and start making things happen? Let's go!

Introduction to Entrepreneurship

0.5 Credit

Prerequisites: None

Grades: 10, 11, 12

Note: This course may not be offered every academic year.

This course provides an introduction to, and an overview of, the fundamentals of entrepreneurship. Whether you already have an idea and are eager to start your own business, or simply want to learn more about what an entrepreneurial career would be like, this course exposes you to the challenges of entrepreneurship—from conceptualizing new ventures to developing and managing them. We'll start with idea generation, opportunity recognition, and early opportunity development, with emphasis placed on understanding the mechanisms by which entrepreneurs determine if a specific business concept merits the in-depth feasibility assessment appropriate to opportunity pursuit. We'll progress to topics such as testing and adapting a business concept, evaluating go-to-market strategies, developing a business model and financing the venture to get it off the ground. We'll also explore how an entrepreneurial mindset can aid alternative career paths, such as corporate entrepreneurship and social entrepreneurship.

Media & Marketing: Yearbook Production

1.0 Credit

Prerequisites: None

Grades: 9, 10, 11, 12

In this course, students will develop skills in journalism, photography, design, business, and marketing to create a publication that captures the year's spirit. Through interviewing, writing, and storytelling, they will craft compelling narratives that highlight our school community. Students will also learn graphic design, layout, and industry-standard software to produce visually engaging pages. Additionally, they will explore marketing and business strategies to promote and fund the

yearbook. This hands-on, collaborative course fosters creativity, teamwork, and pride in producing a lasting keepsake.

NOTE: This course can fulfill a student's fine art requirement.

Courses Organized by Elective Areas

Note: These courses may not be offered every academic year.

STEM

- ❏ Special Topics in Mathematics
- ❏ Adv Mechanics Hon
- ❏ Anatomy Hon
- ❏ AP Biology
- ❏ AP Environmental Science
- ❏ Appalachian Ecology Hon
- ❏ Botany Hon
- ❏ Chemistry I Hon
- ❏ Environmental Science Hon
- ❏ Environmental Sustainability
- ❏ Experimental Physics: Exploring the World Through Measurement (Honors)
- ❏ Materials Through Time: Shaping Civilization (Honors)
- ❏ Microbiology Hon
- ❏ Organic Chemistry & Biochemistry Hon
- ❏ Physics I Hon
- ❏ Physics of Collisions Hon
- ❏ Unplugged & Outside
- ❏ Zoology Hon
- ❏ Designing with the Pros
- ❏ Project-Based Engineering

Humanities

- ❏ Contemplative Literature
- ❏ Creative Writing
- ❏ Film Analysis
- ❏ Introduction to Psychology
- ❏ Japanese Language & Culture
- ❏ Medieval Studies
- ❏ Nature Writing
- ❏ Philosophy
- ❏ Poetry
- ❏ Spanish 3

Fine Arts

- ❏ Singers
- ❏ Strings
- ❏ Music Theory & History
- ❏ Intro to Studio Art
- ❏ Advanced Studio Art
- ❏ Sculpture

Leadership

- ❏ Introduction to Business & Marketing
- ❏ Introduction to Entrepreneurship
- ❏ Media & Marketing: Yearbook Production

❏ Watercolor Techniques ❏ Technical Theater ❏ Theater Arts ❏ Cinema & Photography	